

APPENDIX A

**BIOLOGICAL TECHNICAL
ASSESSMENT REPORT**

SOFT-BOTTOM CHANNEL MAPS OF VEGETATION TYPES

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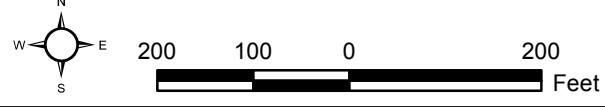
- Vegetation Types and Other Areas**
- CSS - Coastal Sage Scrub
 - DA - Disturbed Alluvial Sage Scrub
 - RUD - Ruderal
 - MFS - Mule Fat Scrub
 - OW - Open Water
 - DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types – Reach 39

San Gabriel River Watershed Feasibility Study



Appendix A-1

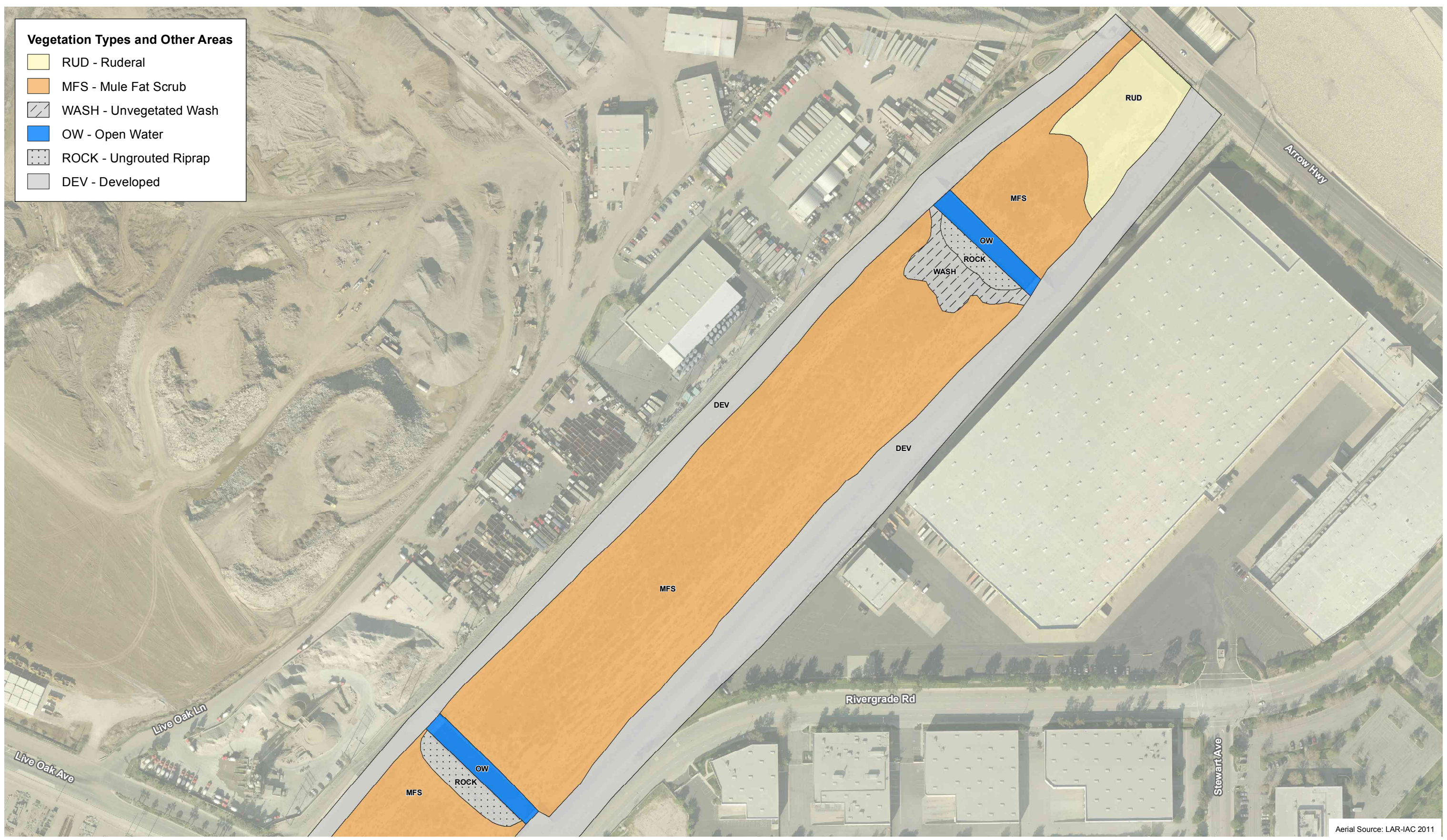


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Vegetation Types and Other Areas

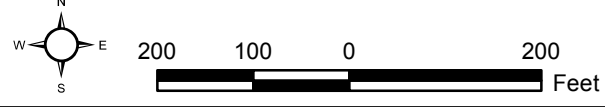
- RUD - Ruderal
- MFS - Mule Fat Scrub
- WASH - Unvegetated Wash
- OW - Open Water
- ROCK - UngROUTed Riprap
- DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types – Reach 40a

San Gabriel River Watershed Feasibility Study



Appendix A-2



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Vegetation Types and Other Areas

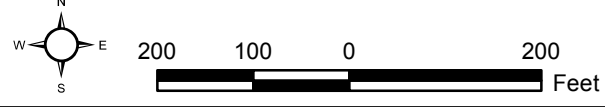
- MFS - Mule Fat Scrub
- OW - Open Water
- ROCK - UngROUTed Riprap
- DEV - Developed



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Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 40a
 San Gabriel River Watershed Feasibility Study



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Vegetation Types and Other Areas

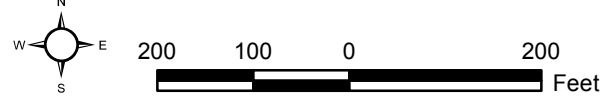
- RUD - Ruderal
- MFS - Mule Fat Scrub
- WASH - Unvegetated Wash
- OW - Open Water
- ROCK - UngROUTed Riprap
- DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types – Reach 40a

San Gabriel River Watershed Feasibility Study











Appendix A-4

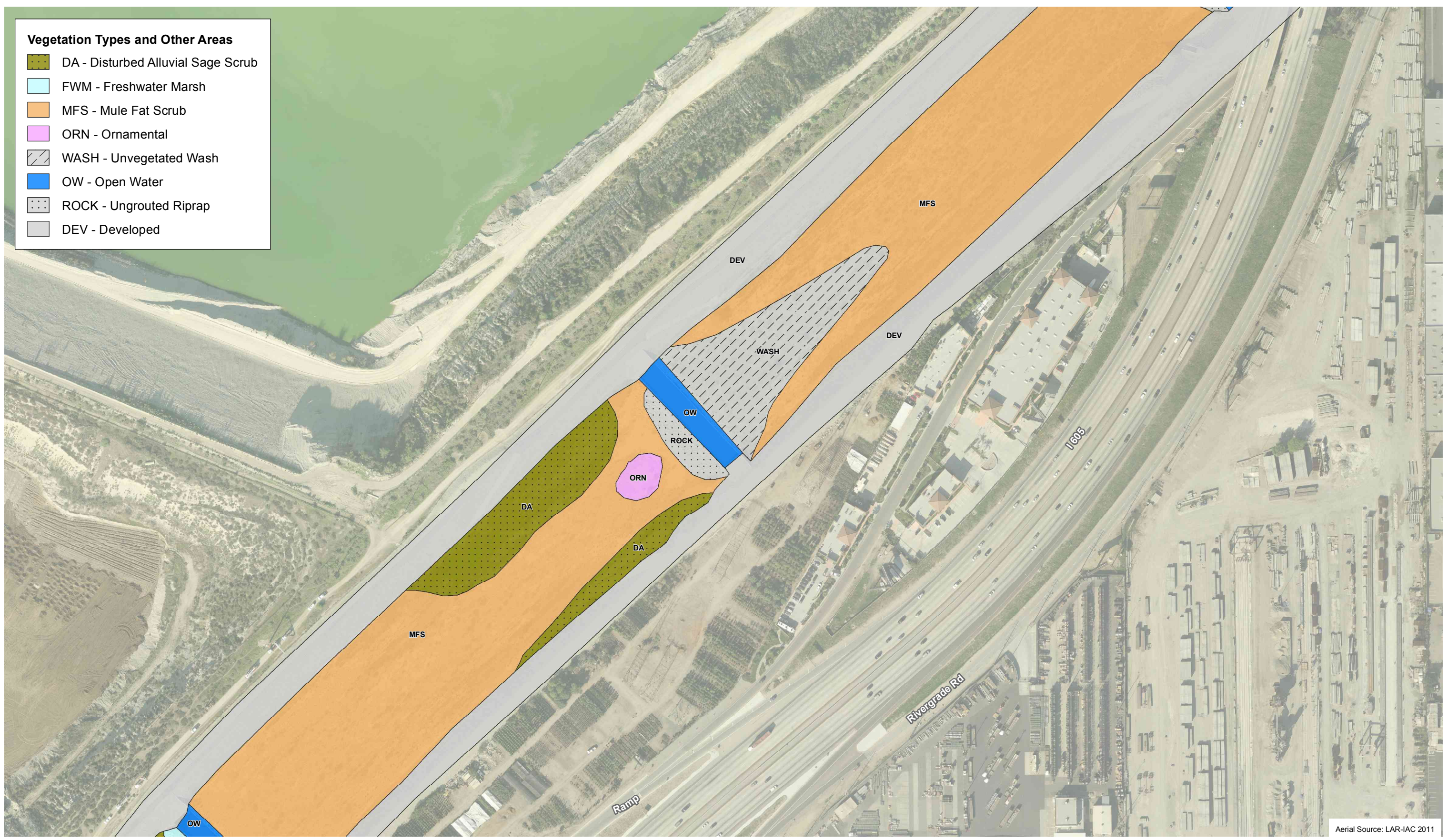


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Vegetation Types and Other Areas

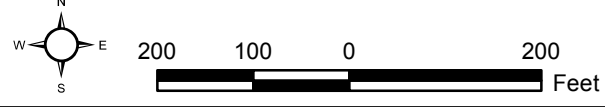
-  DA - Disturbed Alluvial Sage Scrub
-  FWM - Freshwater Marsh
-  MFS - Mule Fat Scrub
-  ORN - Ornamental
-  WASH - Unvegetated Wash
-  OW - Open Water
-  ROCK - UngROUTed Riprap
-  DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 40a

San Gabriel River Watershed Feasibility Study



Appendix A-5

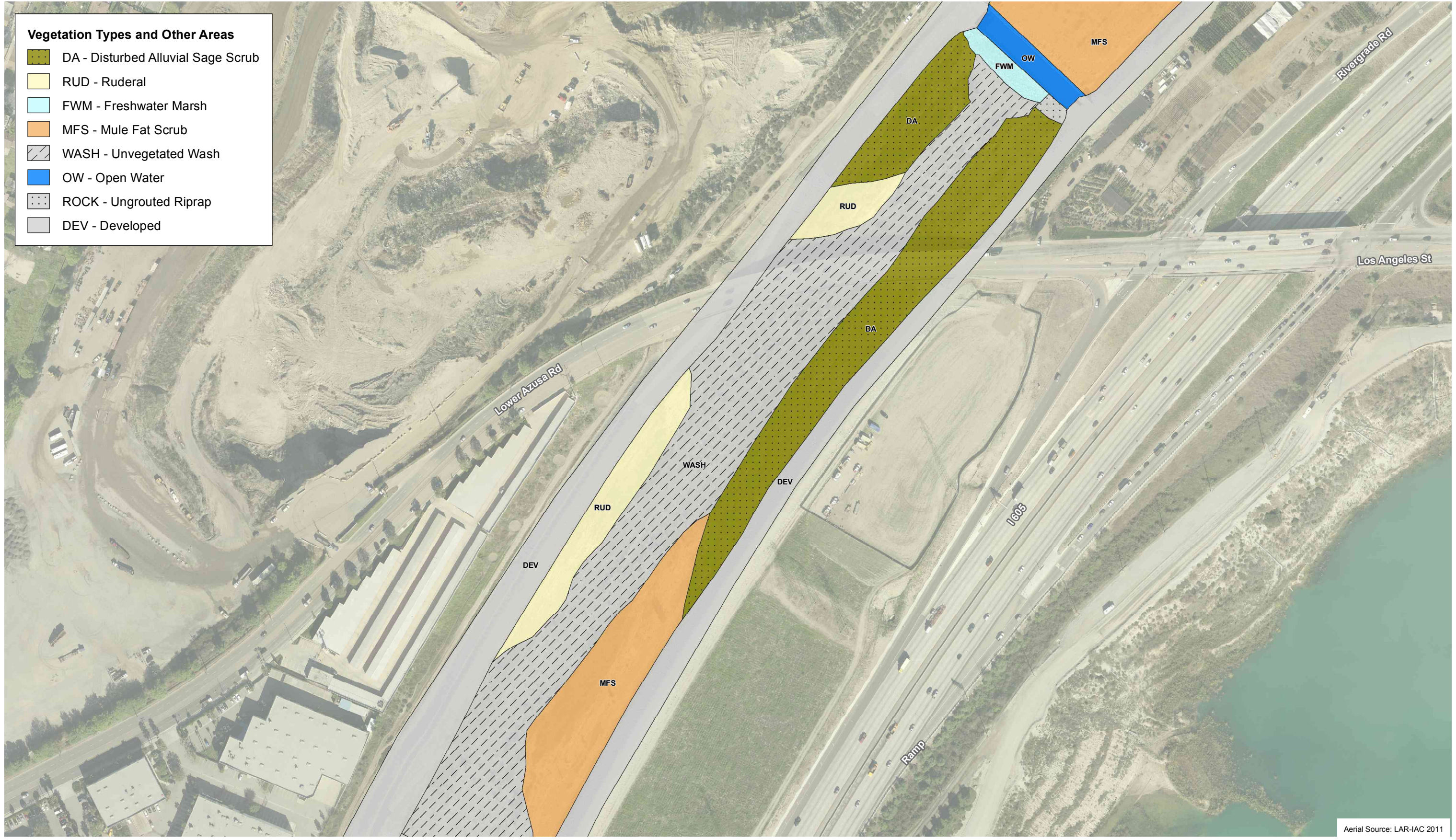


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Vegetation Types and Other Areas

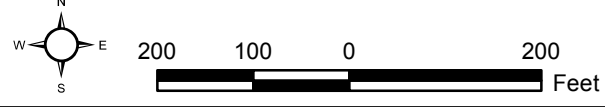
- DA - Disturbed Alluvial Sage Scrub
- RUD - Ruderal
- FWM - Freshwater Marsh
- MFS - Mule Fat Scrub
- WASH - Unvegetated Wash
- OW - Open Water
- ROCK - Ungrouted Riprap
- DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types – Reach 40a

San Gabriel River Watershed Feasibility Study



Appendix A-6

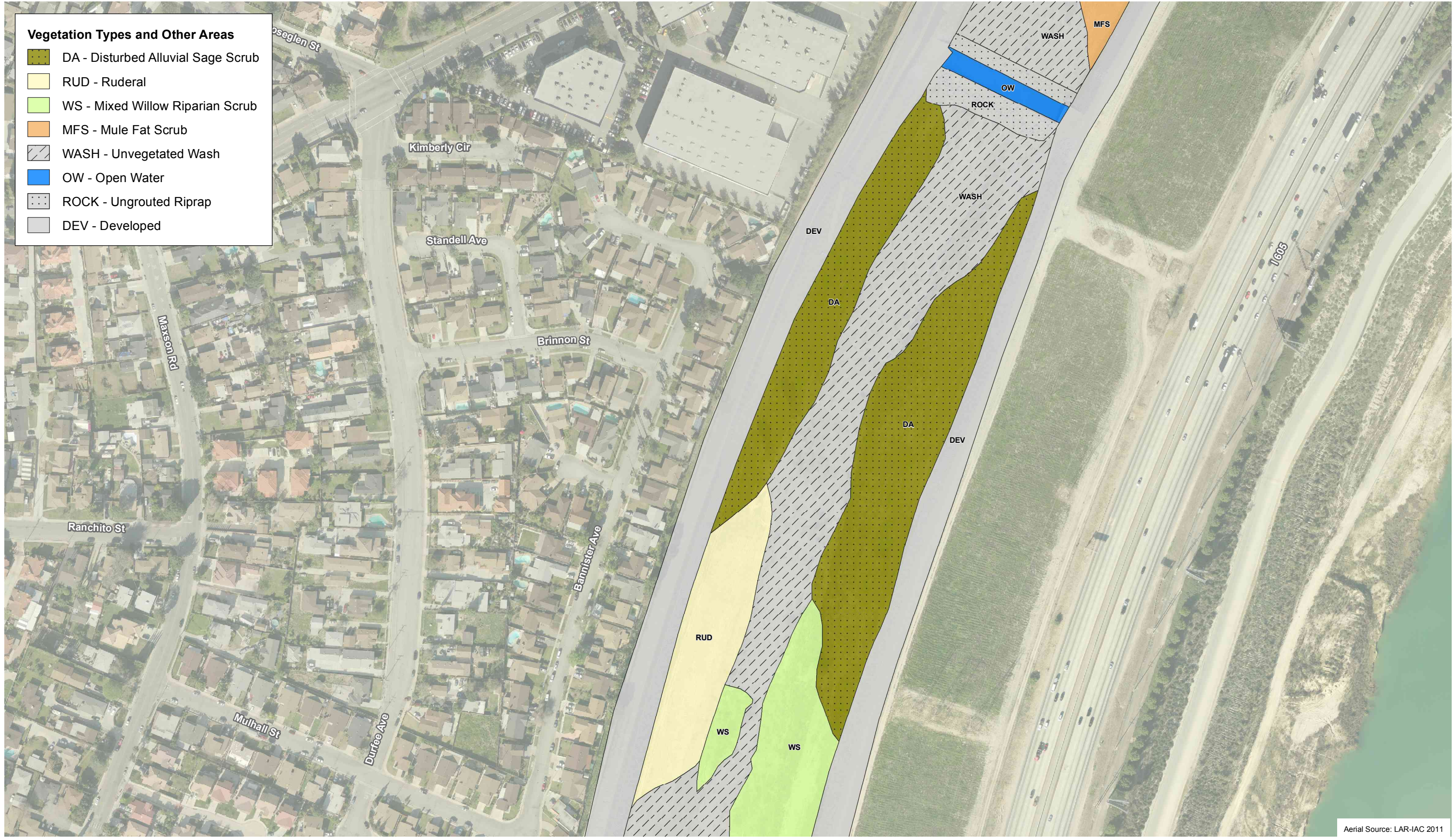


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Vegetation Types and Other Areas

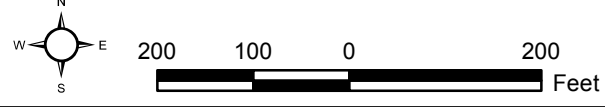
- DA - Disturbed Alluvial Sage Scrub
- RUD - Ruderal
- WS - Mixed Willow Riparian Scrub
- MFS - Mule Fat Scrub
- WASH - Unvegetated Wash
- OW - Open Water
- ROCK - UngROUTed Riprap
- DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types – Reach 40a

San Gabriel River Watershed Feasibility Study



Appendix A-7

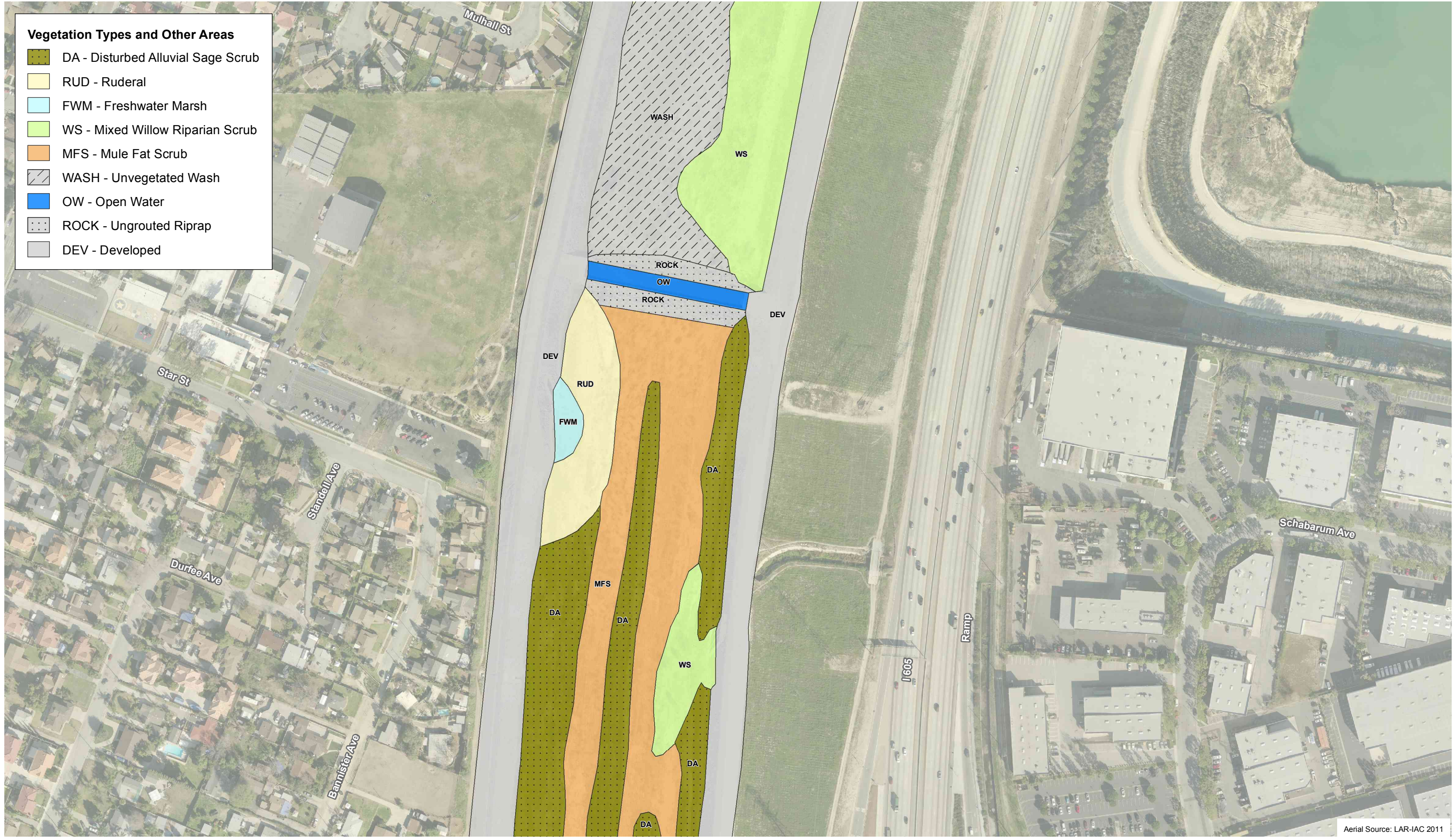


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Vegetation Types and Other Areas

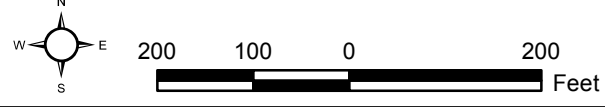
- DA - Disturbed Alluvial Sage Scrub
- RUD - Ruderal
- FWM - Freshwater Marsh
- WS - Mixed Willow Riparian Scrub
- MFS - Mule Fat Scrub
- WASH - Unvegetated Wash
- OW - Open Water
- ROCK - Ungrouted Riprap
- DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types – Reach 40a

San Gabriel River Watershed Feasibility Study



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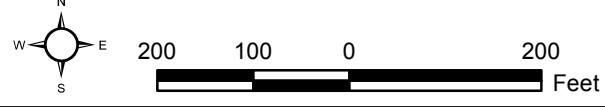
Vegetation Types and Other Areas

- DA - Disturbed Alluvial Sage Scrub
- RUD - Ruderal
- MFS - Mule Fat Scrub
- WASH - Unvegetated Wash
- DEV - Developed



Vegetation Types – Reach 40a

San Gabriel River Watershed Feasibility Study



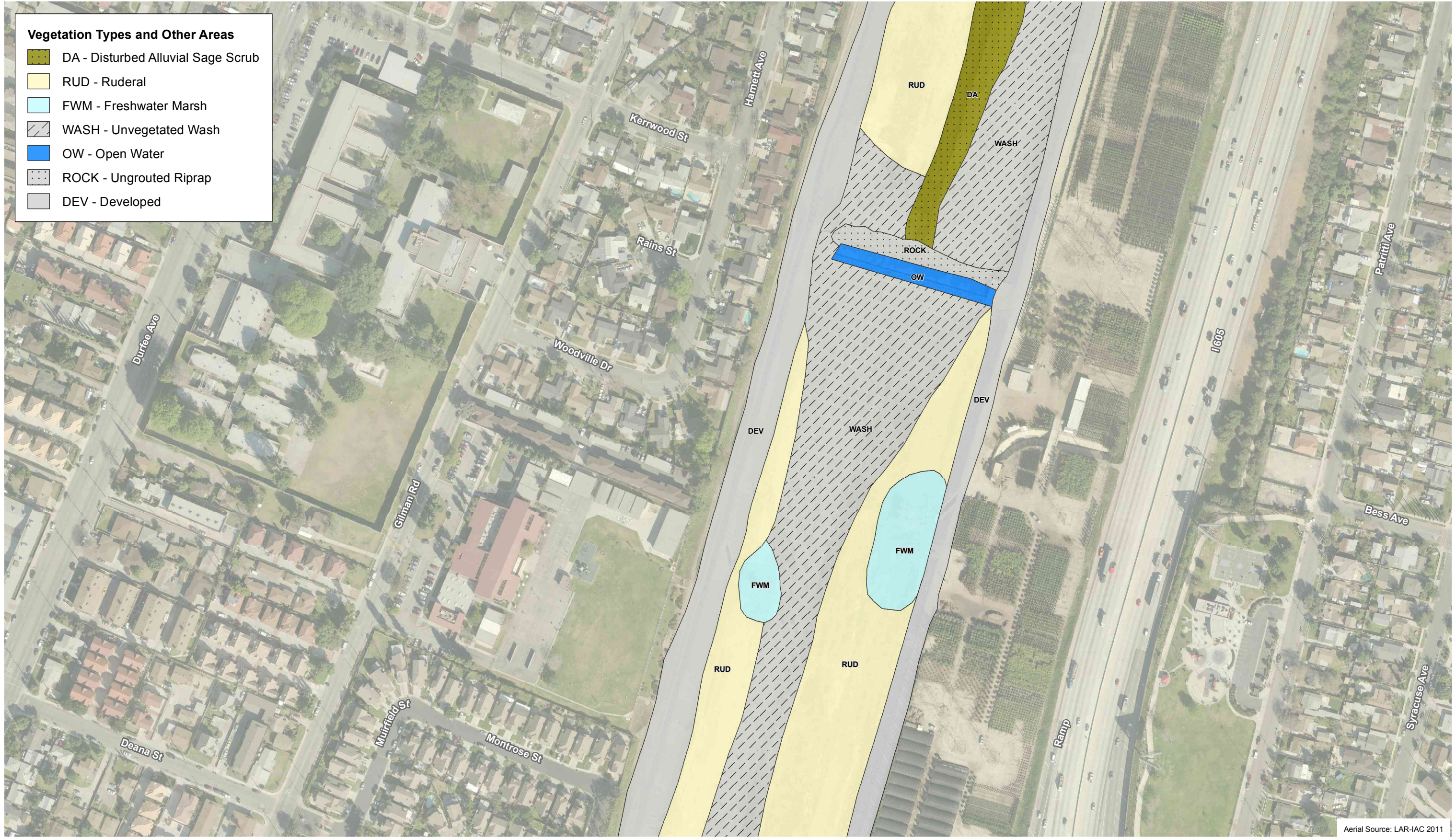
Appendix A-9



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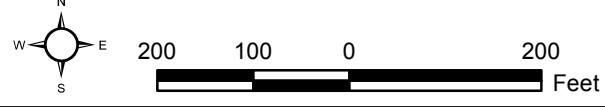
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- Vegetation Types and Other Areas**
- DA - Disturbed Alluvial Sage Scrub
 - RUD - Ruderal
 - FWM - Freshwater Marsh
 - WASH - Unvegetated Wash
 - OW - Open Water
 - ROCK - UngROUTed Riprap
 - DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 40a
 San Gabriel River Watershed Feasibility Study



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Vegetation Types and Other Areas

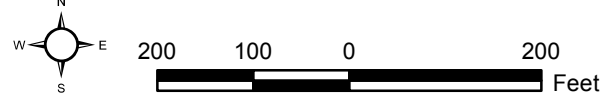
- RUD - Ruderal
- FWM - Freshwater Marsh
- MFS - Mule Fat Scrub
- WASH - Unvegetated Wash
- DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 40a

San Gabriel River Watershed Feasibility Study



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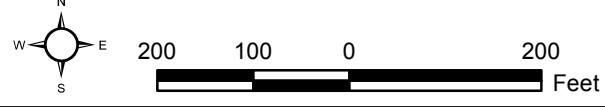
- Vegetation Types and Other Areas**
- RUD - Ruderal
 - R/OW - Ruderal/Open Water
 - WS - Mixed Willow Riparian Scrub
 - MFS - Mule Fat Scrub
 - WASH - Unvegetated Wash
 - OW - Open Water
 - ROCK - Ungrouted Riprap
 - DEV - Developed



Aerial Source: LAR-IAC 2011

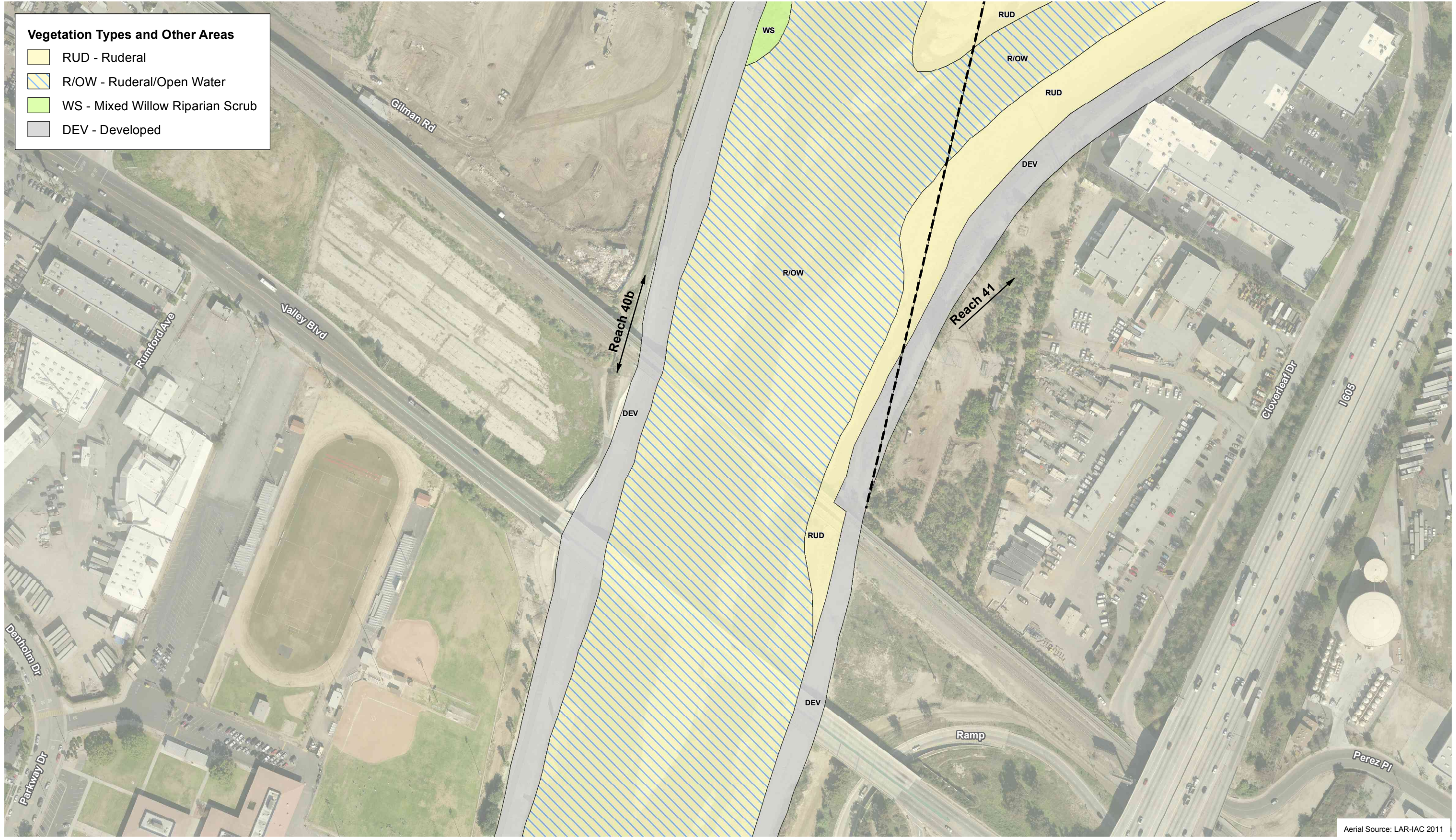
Vegetation Types - Reach 40b

San Gabriel River Watershed Feasibility Study



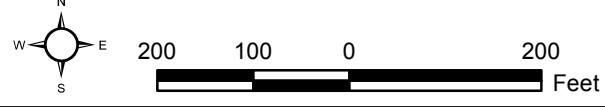
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- Vegetation Types and Other Areas**
- RUD - Ruderal
 - R/OW - Ruderal/Open Water
 - WS - Mixed Willow Riparian Scrub
 - DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 40b
 San Gabriel River Watershed Feasibility Study



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Vegetation Types and Other Areas

- RUD - Ruderal
- R/OW - Ruderal/Open Water
- OW - Open Water
- DEV - Developed

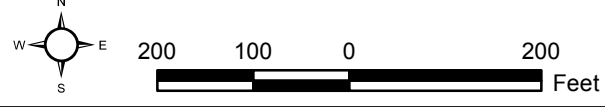


Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 40b

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Vegetation Types and Other Areas

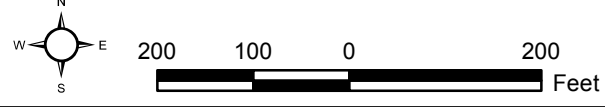
- RUD - Ruderal
- WS - Mixed Willow Riparian Scrub
- WRF - Mixed Willow Riparian Forest
- OW - Open Water
- DEV - Developed



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Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 40b
 San Gabriel River Watershed Feasibility Study



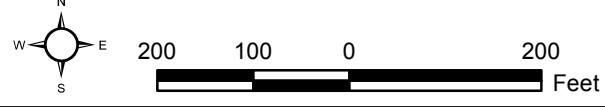
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- Vegetation Types and Other Areas**
- RUD - Ruderal
 - WS - Mixed Willow Riparian Scrub
 - WRF - Mixed Willow Riparian Forest
 - OW - Open Water
 - DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 40b
 San Gabriel River Watershed Feasibility Study



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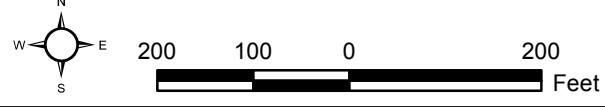
- Vegetation Types and Other Areas**
- RUD - Ruderal
 - FWM - Freshwater Marsh
 - WS - Mixed Willow Riparian Scrub
 - WRF - Mixed Willow Riparian Forest
 - OW - Open Water
 - DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 40b

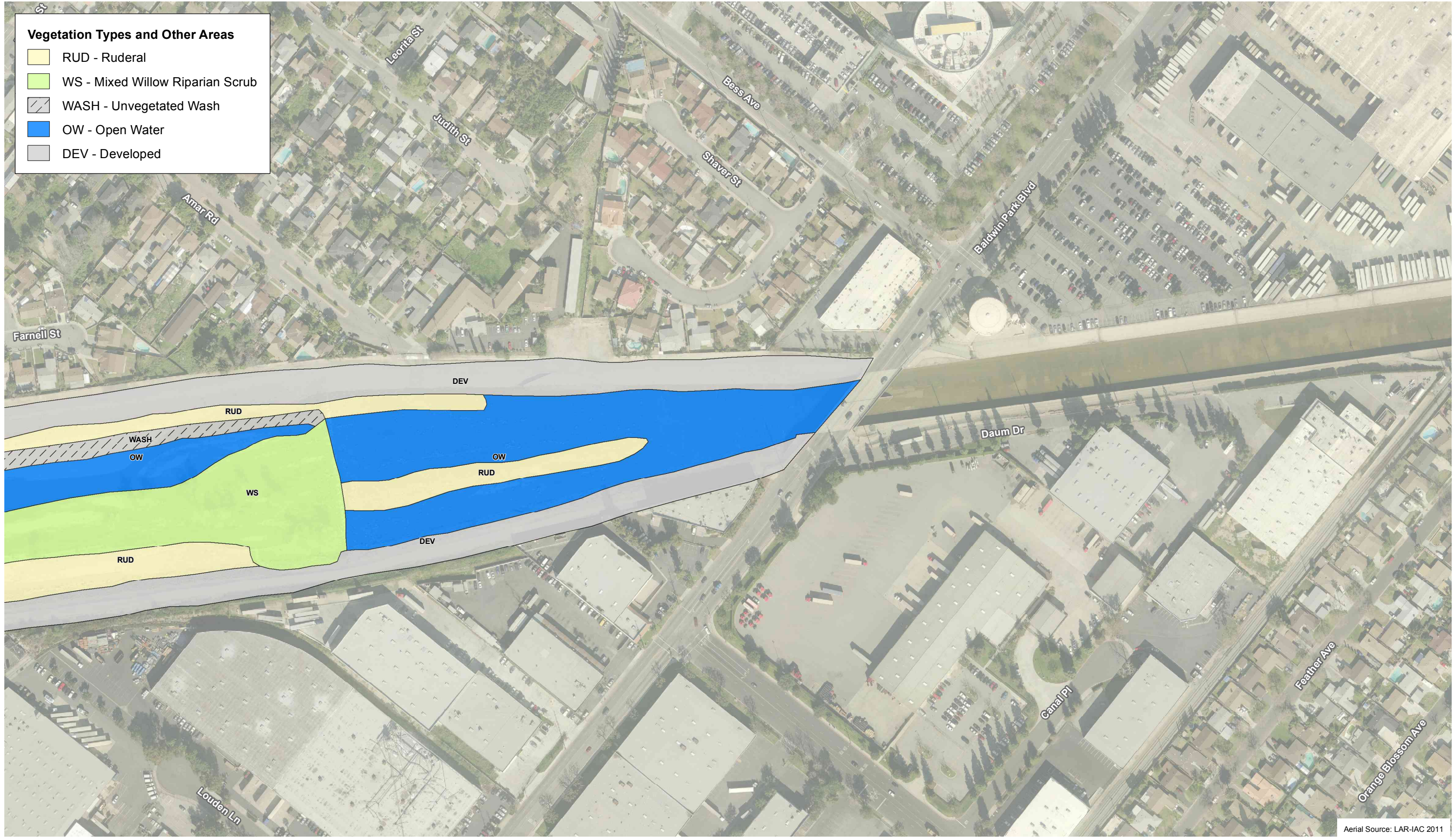
San Gabriel River Watershed Feasibility Study



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Vegetation Types and Other Areas

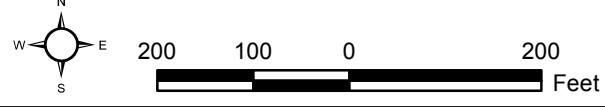
- RUD - Ruderal
- WS - Mixed Willow Riparian Scrub
- WASH - Unvegetated Wash
- OW - Open Water
- DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types – Reach 41

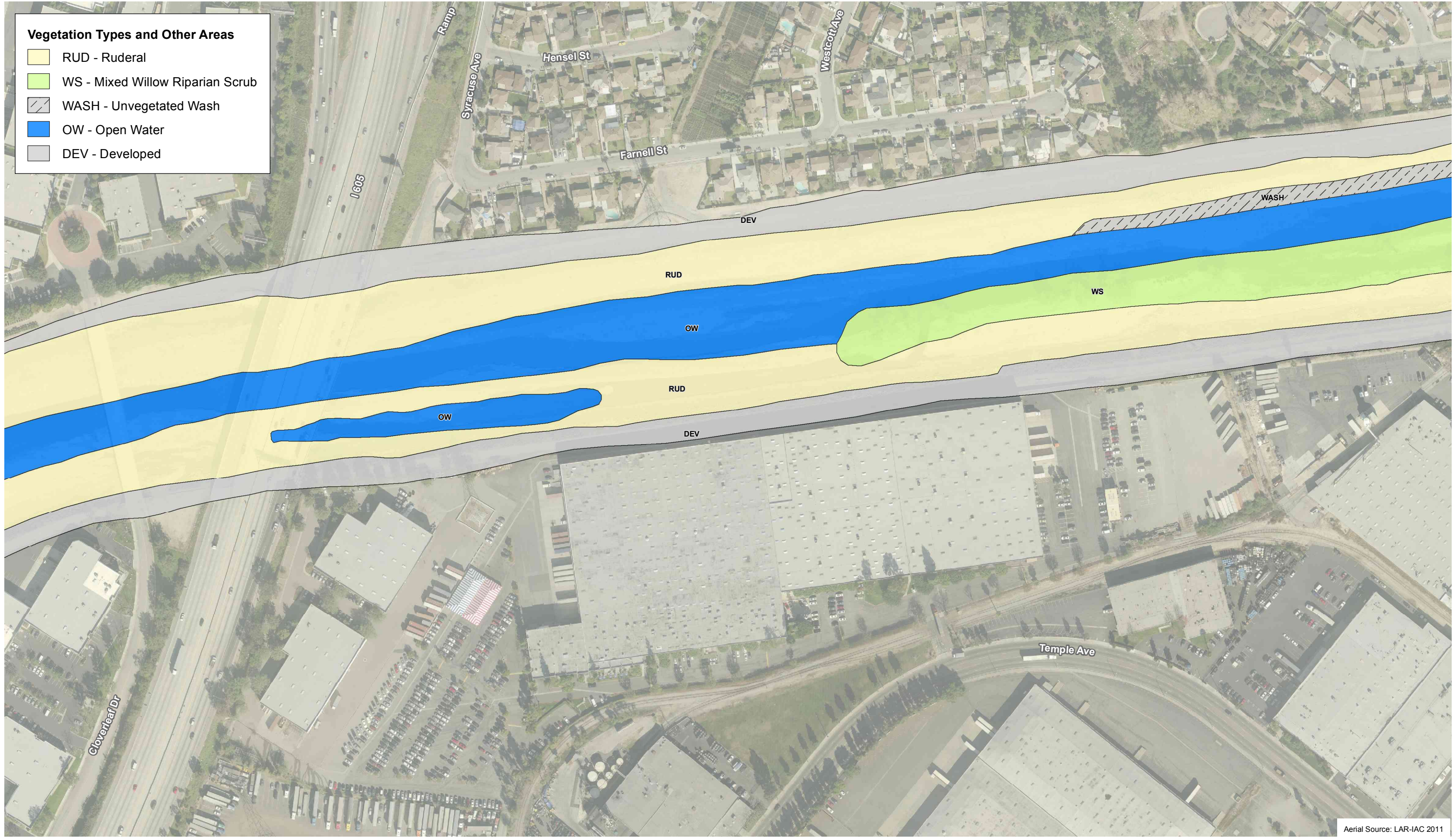
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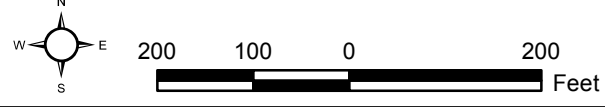
- Vegetation Types and Other Areas**
- RUD - Ruderal
 - WS - Mixed Willow Riparian Scrub
 - WASH - Unvegetated Wash
 - OW - Open Water
 - DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 41

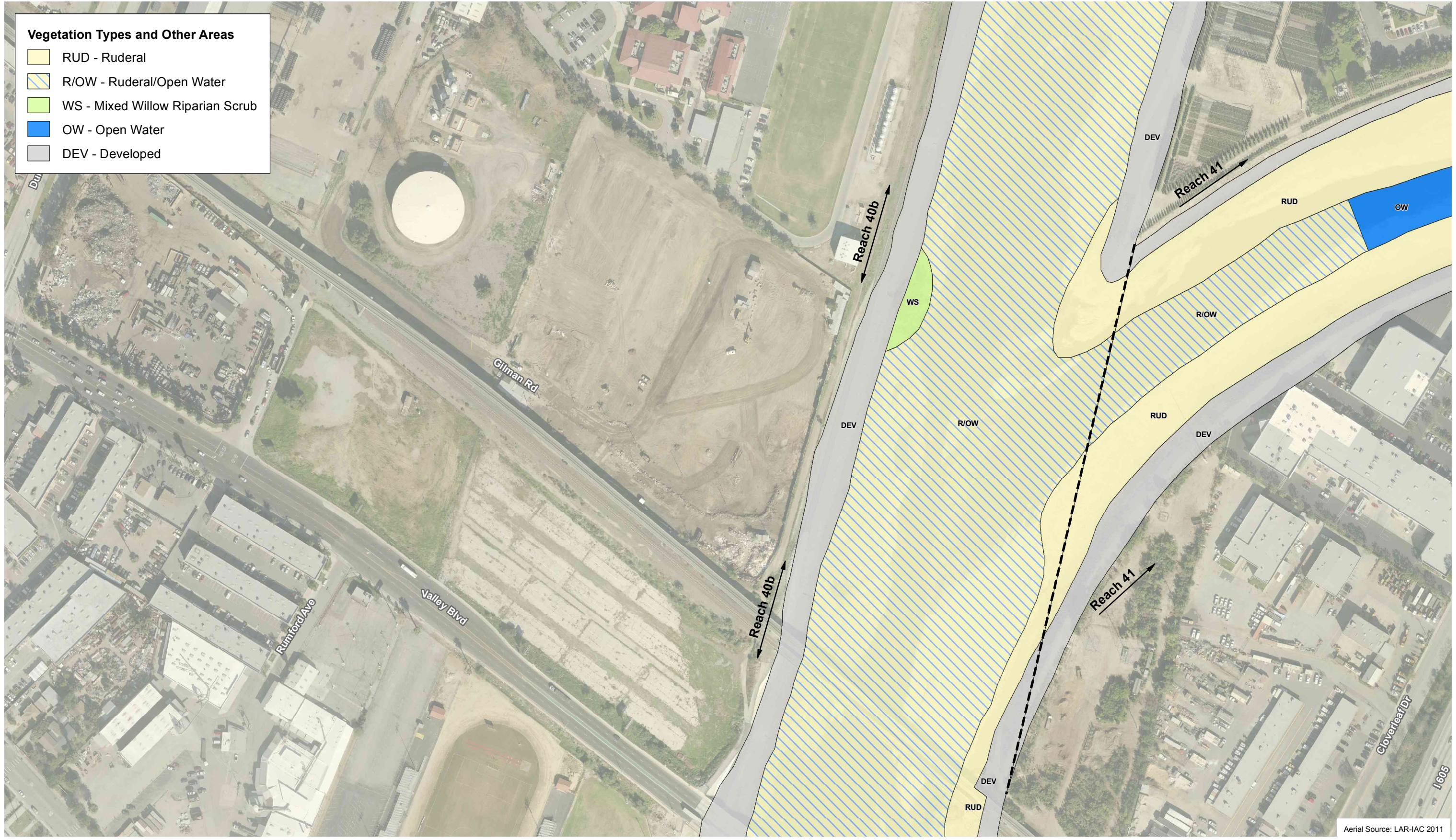
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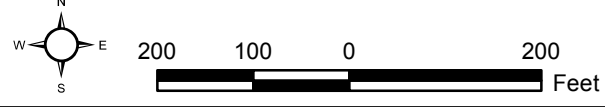
- Vegetation Types and Other Areas**
- RUD - Ruderal
 - R/OW - Ruderal/Open Water
 - WS - Mixed Willow Riparian Scrub
 - OW - Open Water
 - DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types – Reach 41

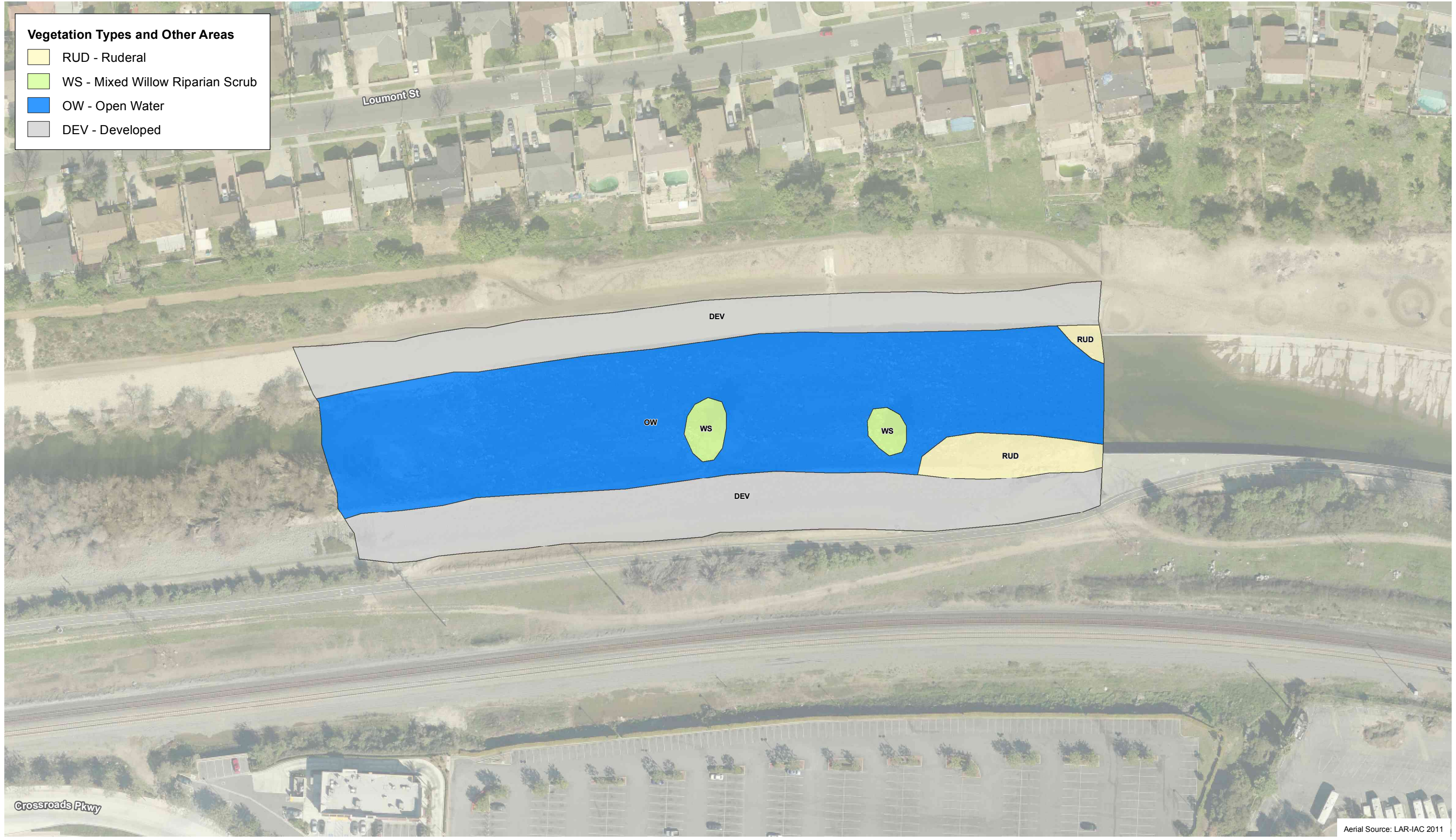
San Gabriel River Watershed Feasibility Study



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- Vegetation Types and Other Areas**
- RUD - Ruderal
 - WS - Mixed Willow Riparian Scrub
 - OW - Open Water
 - DEV - Developed



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Aerial Source: LAR-IAC 2011

Vegetation Types – Reach 42

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Vegetation Types and Other Areas

- RUD - Ruderal
- WRF - Mixed Willow Riparian Forest
- OW - Open Water
- DIST - Disturbed
- DEV - Developed

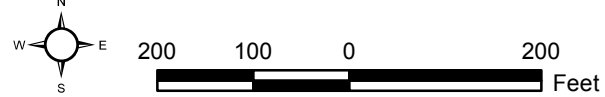


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Aerial Source: LAR-IAC 2011

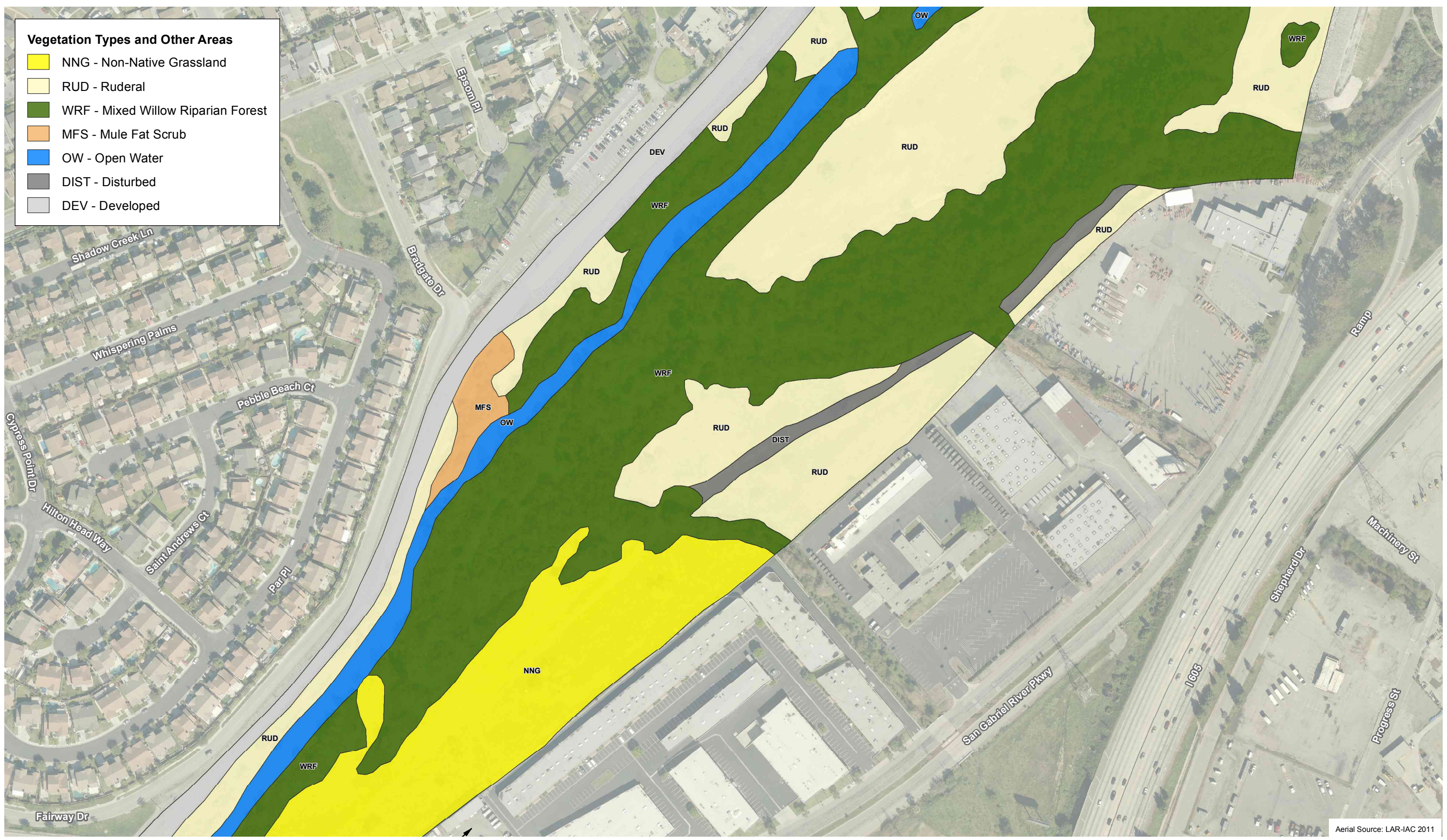
Vegetation Types - Reach 43a

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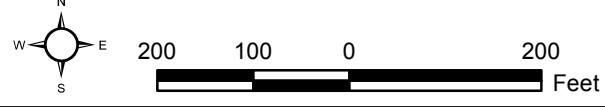
- Vegetation Types and Other Areas**
- NNG - Non-Native Grassland
 - RUD - Ruderal
 - WRF - Mixed Willow Riparian Forest
 - MFS - Mule Fat Scrub
 - OW - Open Water
 - DIST - Disturbed
 - DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 43a

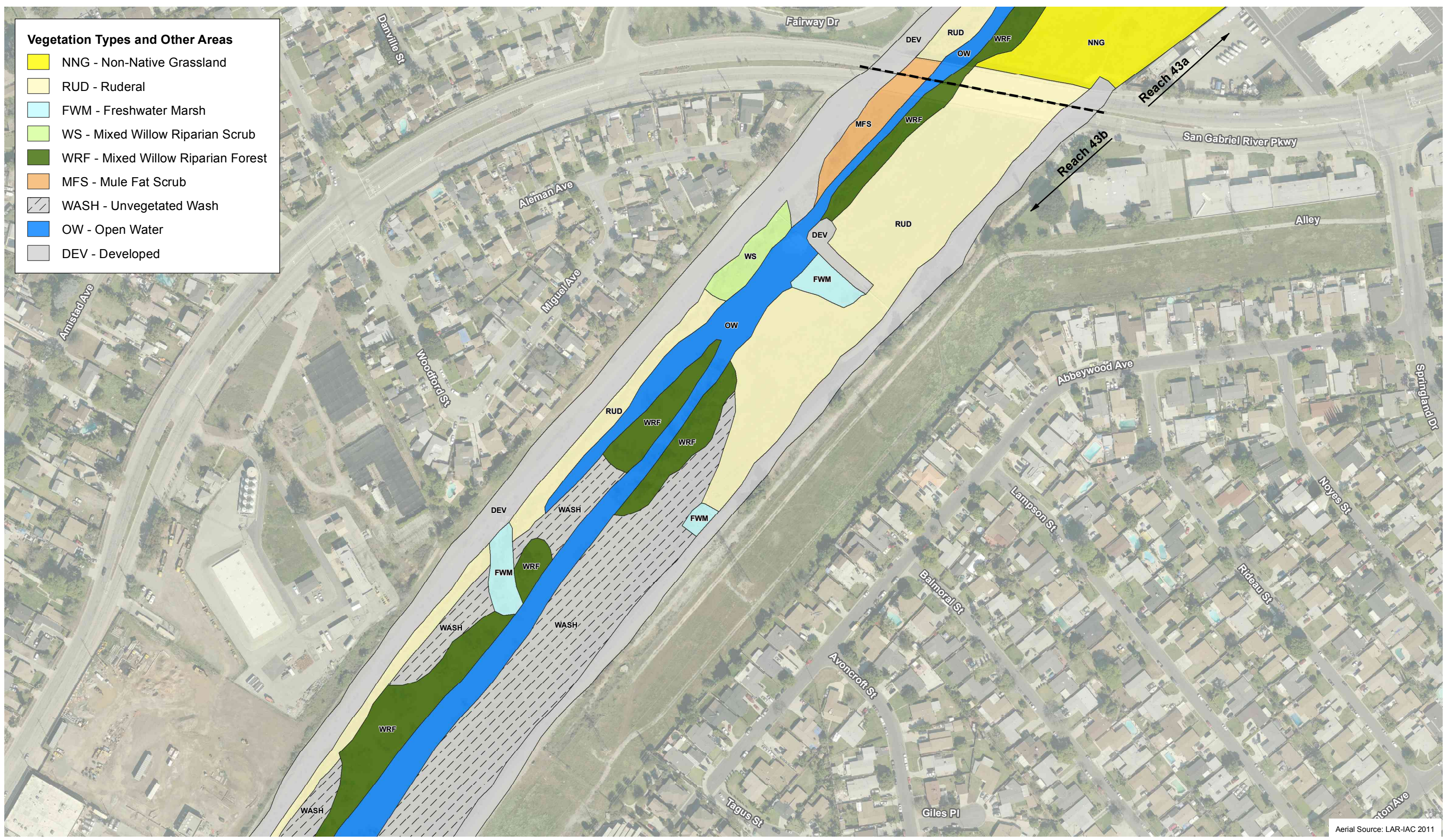
San Gabriel River Watershed Feasibility Study



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Vegetation Types and Other Areas

- NNG - Non-Native Grassland
- RUD - Ruderal
- FWM - Freshwater Marsh
- WS - Mixed Willow Riparian Scrub
- WRF - Mixed Willow Riparian Forest
- MFS - Mule Fat Scrub
- WASH - Unvegetated Wash
- OW - Open Water
- DEV - Developed

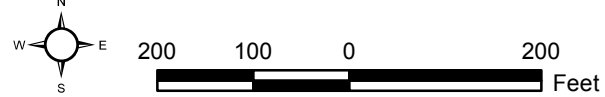


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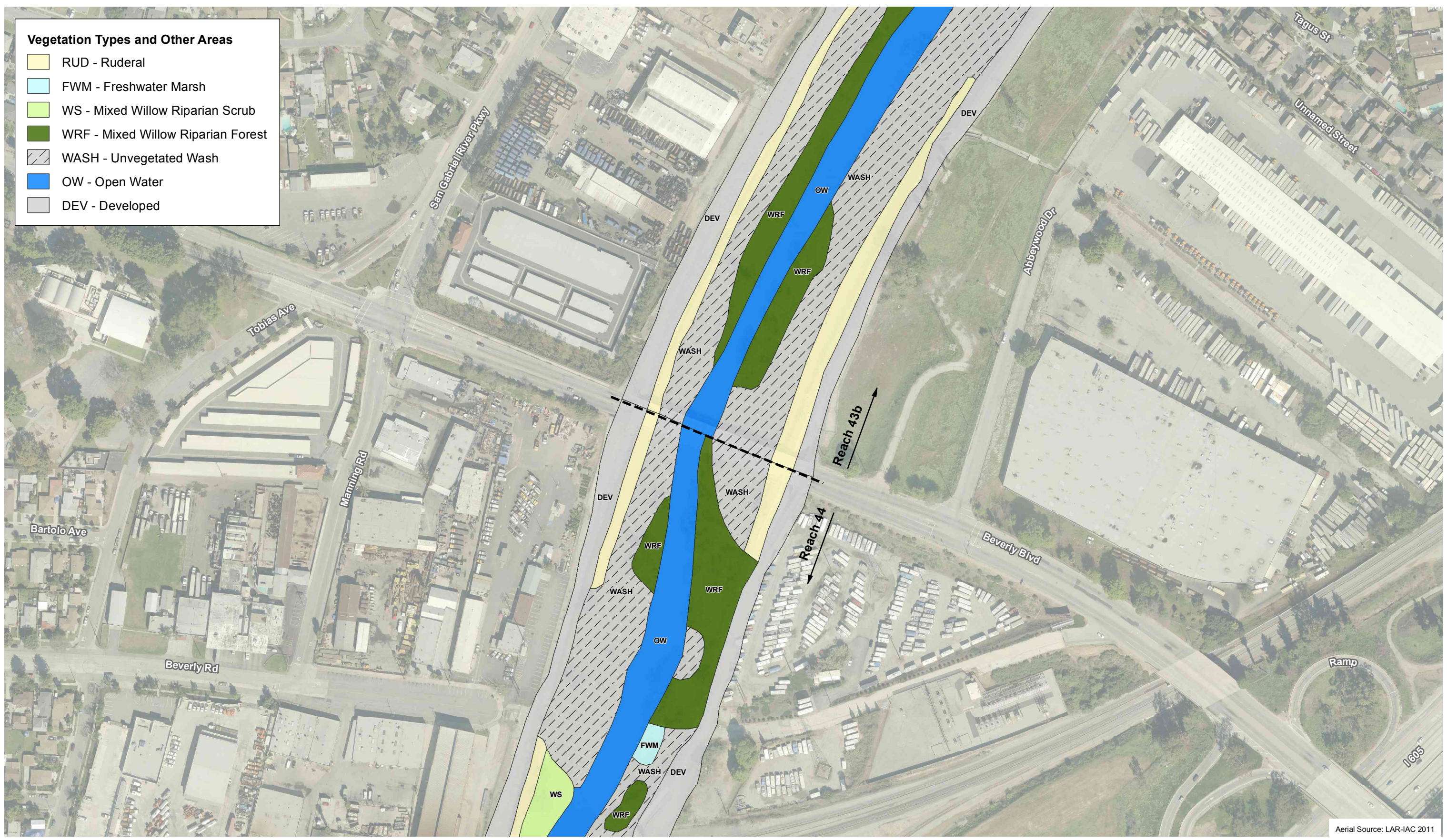
Vegetation Types – Reaches 43a and 43b

San Gabriel River Watershed Feasibility Study



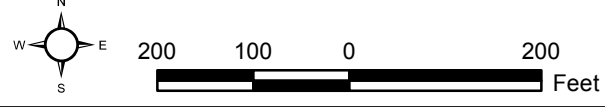
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- Vegetation Types and Other Areas**
- RUD - Ruderal
 - FWM - Freshwater Marsh
 - WS - Mixed Willow Riparian Scrub
 - WRF - Mixed Willow Riparian Forest
 - WASH - Unvegetated Wash
 - OW - Open Water
 - DEV - Developed



Vegetation Types – Reaches 43b and 44

San Gabriel River Watershed Feasibility Study



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Vegetation Types and Other Areas

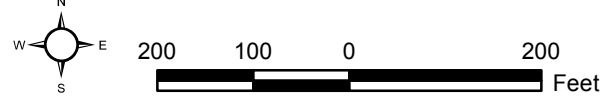
- RUD - Ruderal
- FWM - Freshwater Marsh
- WS - Mixed Willow Riparian Scrub
- WRF - Mixed Willow Riparian Forest
- WASH - Unvegetated Wash
- OW - Open Water
- DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 44

San Gabriel River Watershed Feasibility Study



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Vegetation Types and Other Areas

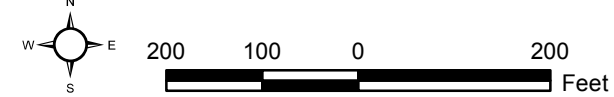
- RUD - Ruderal
- OW - Open Water
- DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 44

San Gabriel River Watershed Feasibility Study



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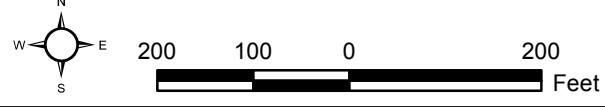
- Vegetation Types and Other Areas**
- RUD - Ruderal
 - FWM - Freshwater Marsh
 - WRF - Mixed Willow Riparian Forest
 - OW - Open Water
 - DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 44

San Gabriel River Watershed Feasibility Study



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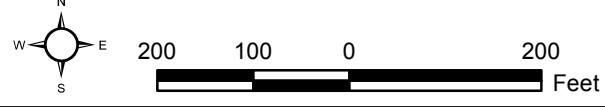
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Vegetation Types - Reach 44

San Gabriel River Watershed Feasibility Study



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Vegetation Types and Other Areas

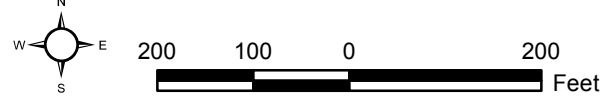
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Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 44

San Gabriel River Watershed Feasibility Study



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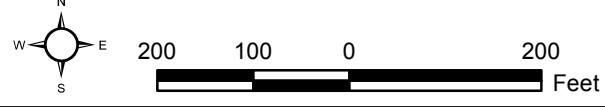
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San Gabriel River Watershed Feasibility Study



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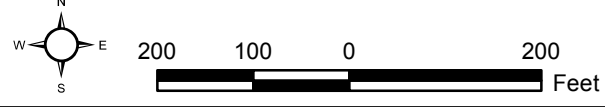
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San Gabriel River Watershed Feasibility Study



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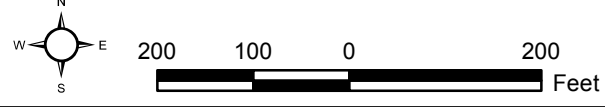
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San Gabriel River Watershed Feasibility Study

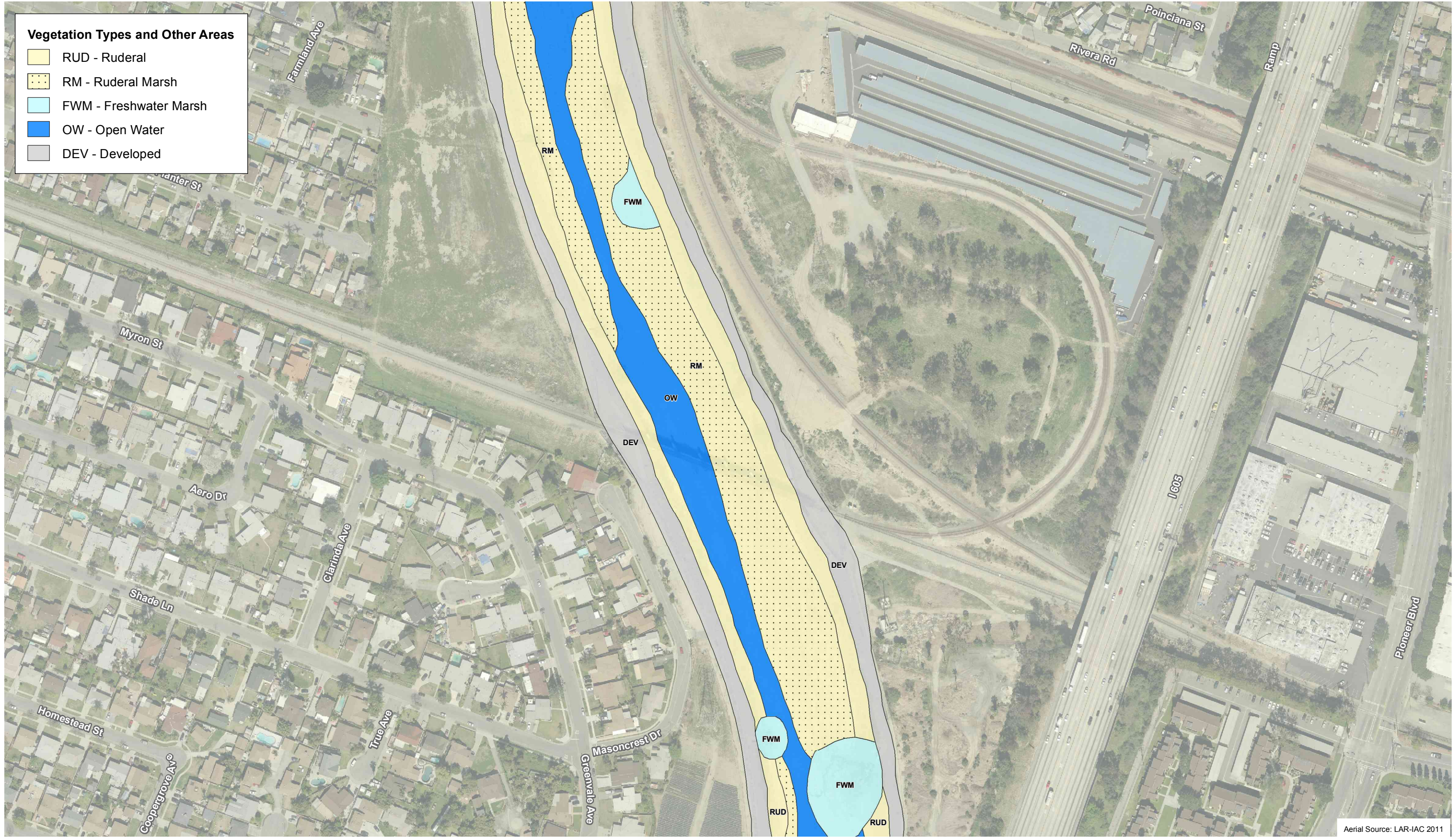


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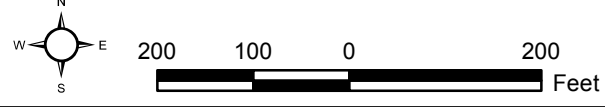
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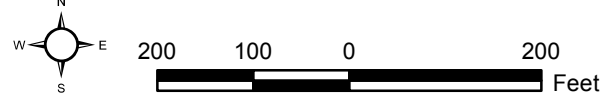
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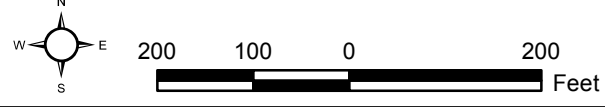
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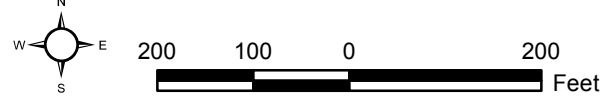
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San Gabriel River Watershed Feasibility Study

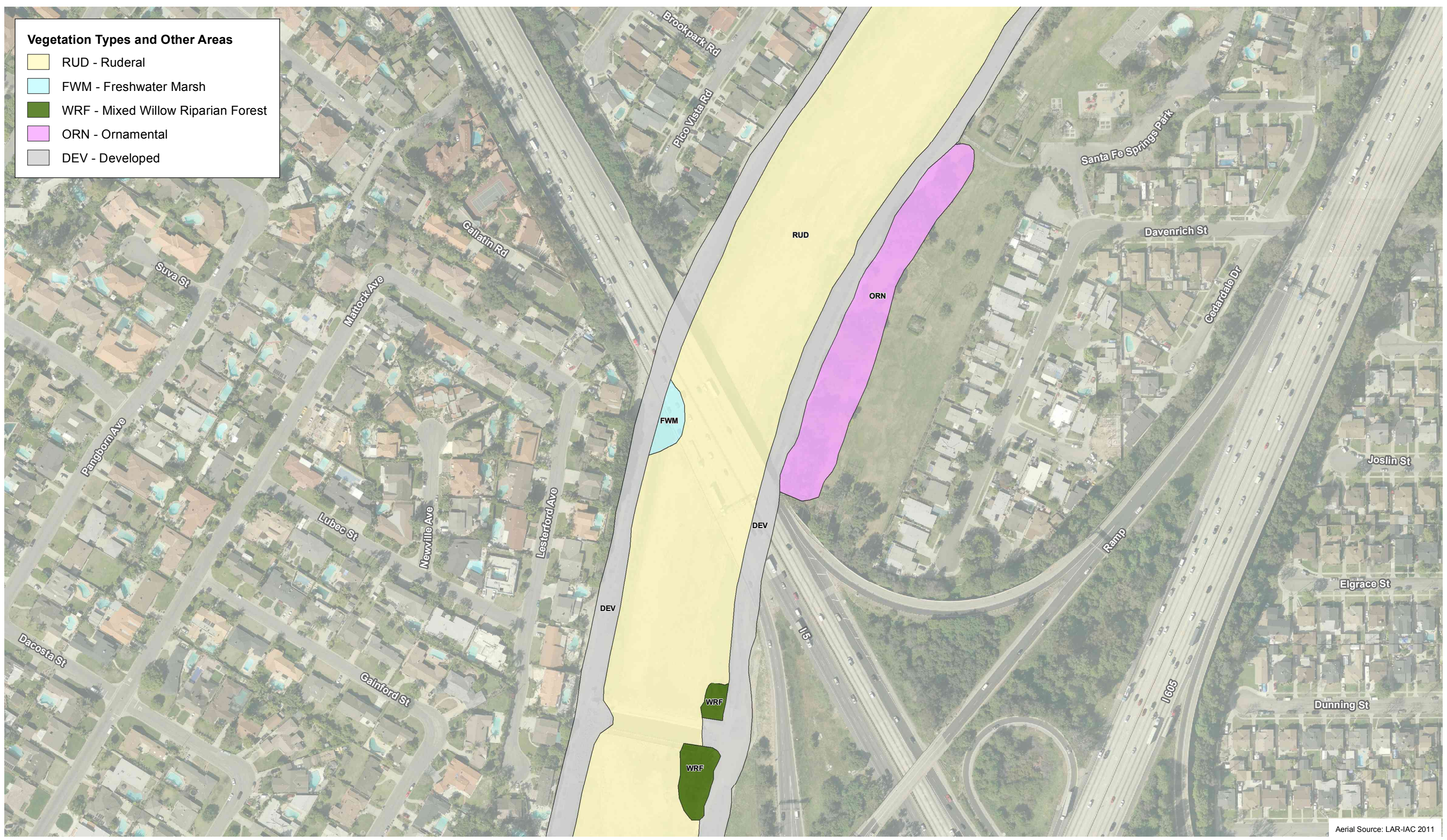


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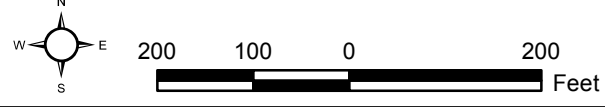
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Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 44

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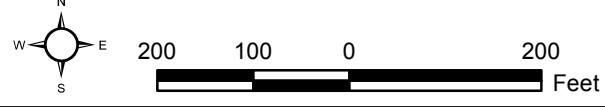
- RUD - Ruderal
- FWM - Freshwater Marsh
- WRF - Mixed Willow Riparian Forest
- MFS - Mule Fat Scrub
- DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types – Reach 44

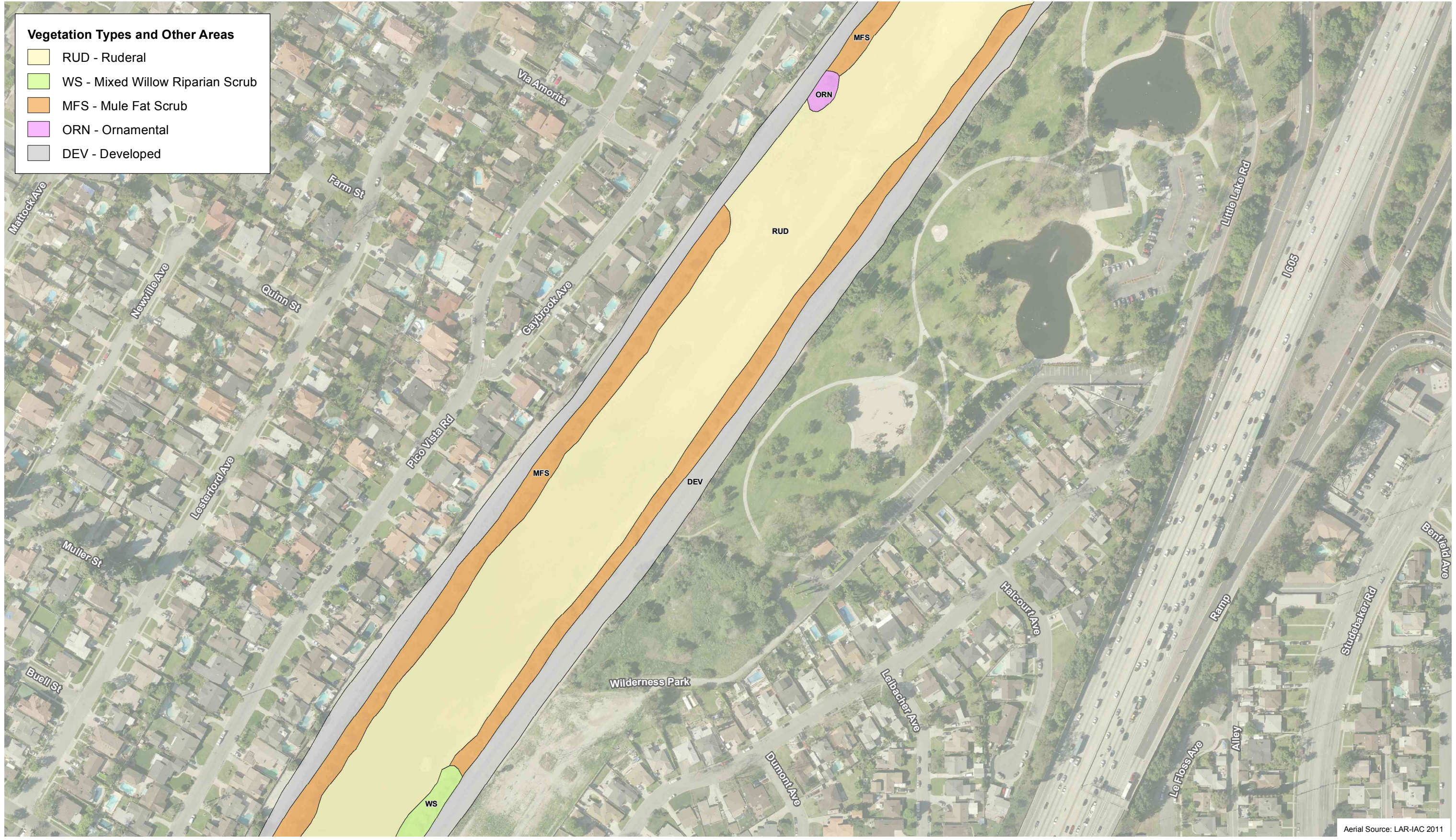
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Vegetation Types and Other Areas

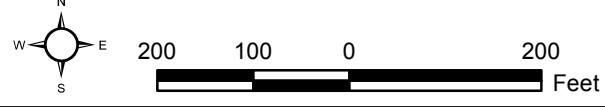
- RUD - Ruderal
- WS - Mixed Willow Riparian Scrub
- MFS - Mule Fat Scrub
- ORN - Ornamental
- DEV - Developed



Aerial Source: LAR-IAC 2011

Vegetation Types – Reach 44

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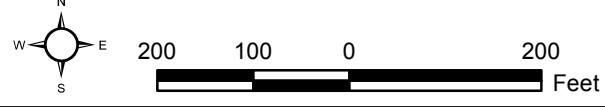
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Aerial Source: LAR-IAC 2011

Vegetation Types - Reach 44

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- Vegetation Types and Other Areas**
- WRF - Mixed Willow Riparian Forest
 - CLOW - Coast Live Oak Woodland
 - OW - Open Water



Aerial Source: LAR-IAC 2011

Vegetation Types – Reach 98

San Gabriel River Watershed Feasibility Study



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RESULTS OF FOCUSED PLANT SURVEY REPORT



February 4, 2015

Jemellee Cruz
Los Angeles County Flood Control District
Flood Maintenance Division
County of Los Angeles
900 South Fremont Avenue, Annex Building, 2nd Floor
Alhambra, California 91803

VIAEMAIL
jcruz@dpw.lacounty.gov

Subject: Results of Focused Surveys for Special Status Plant Species for Seven Soft-Bottom Channels (Reaches 39, 40, 41, 42, 43, 44 and 98) of the San Gabriel River Watershed, Los Angeles County, California

Dear Ms. Cruz:

This Letter Report presents the findings of focused surveys for special status plant species conducted along seven soft-bottom channel (SBC) reaches (Reaches 39, 40, 41, 42, 43, 44 and 98) of the San Gabriel River Watershed in Los Angeles County, California. All seven reaches are maintained by the County of Los Angeles Department of Public Works (CLADPW). These focused surveys were performed for the San Gabriel River Watershed Feasibility Study. Table 1 below lists the number, length, and name of each channel reach, and their locations in a Thomas Guide.

**TABLE 1
CHANNEL REACH INFORMATION**

| Reach No. | Reach Length (feet) | Reach Name | Thomas Guide Location |
|-----------|---------------------|---|-----------------------|
| 39 | 406 | Beatty Channel Outlet at the San Gabriel River (upstream of Foothill Blvd.) | 568-F4 |
| 40 | 33,370 | San Gabriel River (Santa Fe Dam to Thienes Ave.) | 598-B2 to 637-D5 |
| 41 | 6090 | Walnut Creek (Baldwin Park Blvd. to San Gabriel River) | 598-J2 to G2 |
| 42 | 801 | San Jose Creek (1,000 feet from end of concrete channel) | 598-G6 |
| 43 | 6,654 | San Gabriel River – Upper (Whittier Narrows Dam to Beverly Blvd.) | 677-A1 to 676-J2 |
| 44 | 30,895 | San Gabriel River – Lower (Beverly Blvd. to Firestone Blvd.) | 676-J3 to 706-E6 |
| 98 | 51 | Walnut Creek – Channel Inlet | 599-E6 to E7 |

Note: Reaches 40 and 43 were split into 40a, 40b, 43a, and 43b following the focused rare plant survey.

METHODS

Botanical surveys were floristic in nature and conducted following the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFG 2009). A literature search was conducted to identify special status plants and habitats known to occur in the vicinity of the survey areas. Sources reviewed include the U.S. Geological Survey's (USGS') Azusa, El Monte, Baldwin Park, San Dimas, and Whittier 7.5-minute quadrangles in the California Native Plant Society's (CNPS') Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2011) and the California Department of Fish and Game's (CDFG's) California Natural Diversity Database (CNDDDB) (CDFG 2011). All of the special status plant species from these electronic database searches and their status are listed in Table 2.

TABLE 2
SPECIAL STATUS PLANT SPECIES KNOWN
FROM THE VICINITY OF THE SURVEY AREAS

| Species | Status | | |
|--|--------|------|------|
| | USFWS | CDFG | CRPR |
| <i>Astragalus brauntonii</i> Braunton's milk-vetch | FE | — | 1B.1 |
| <i>Atriplex parishii</i> Parish's saltbush | — | — | 1B.1 |
| <i>Atriplex serenana</i> var. <i> davidsonii</i> Davidson's saltbush | — | — | 1B.2 |
| <i>Berberis nevinii</i> Nevin's barberry | FE | SE | 1B.1 |
| <i>California macrophylla</i> round-leaved filaree | — | — | 1B.1 |
| <i>Calochortus clavatus</i> var. <i> gracilis</i> slender mariposa lily | — | — | 1B.2 |
| <i>Calochortus plummerae</i> Plummer's mariposa lily | — | — | 4.2 |
| <i>Calochortus weedii</i> var. <i> intermedius</i> intermediate mariposa lily | — | — | 1B.2 |
| <i>Centromadia parryi</i> ssp. <i> australis</i> southern tarplant | — | — | 1B.1 |
| <i>Chorizanthe parryi</i> var. <i> parryi</i> Parry's spineflower | — | — | 1B.1 |
| <i>Cladium californicum</i> California saw-grass | — | — | 2B.2 |
| <i>Cuscuta obtusiflora</i> var. <i> glandulosa</i> Peruvian dodder | — | — | 2B.2 |
| <i>Dodecahema leptoceras</i> slender-horned spineflower | FE | SE | 1B.1 |

TABLE 2
SPECIAL STATUS PLANT SPECIES KNOWN
FROM THE VICINITY OF THE SURVEY AREAS

| Species | Status | | |
|---|--------|------|------|
| | USFWS | CDFG | CRPR |
| <i>Dudleya cymosa</i> ssp. <i>crebrifolia</i> San Gabriel River dudleya | — | — | 1B.2 |
| <i>Dudleya densiflora</i> San Gabriel Mountains dudleya | — | — | 1B.1 |
| <i>Dudleya multicaulis</i> many-stemmed dudleya | — | — | 1B.2 |
| <i>Galium grande</i> San Gabriel bedstraw | — | — | 1B.2 |
| <i>Hordeum intercedens</i> vernal barley | — | — | 3.2 |
| <i>Horkelia cuneata</i> ssp. <i>puberula</i> mesa horkelia | — | — | 1B.1 |
| <i>Imperata brevifolia</i> California satintail | — | — | 2B.1 |
| <i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields | — | — | 1B.1 |
| <i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass | — | — | 4.3 |
| <i>Navarretia prostrata</i> prostrate vernal pool navarretia | — | — | 1B.1 |
| <i>Orcuttia californica</i> California Orcutt grass | FE | SE | 1B.1 |
| <i>Orobanche valida</i> ssp. <i>valida</i> Rock Creek broomrape | — | — | 1B.2 |
| <i>Phacelia stellaris</i> Brand's star phacelia | FC | — | 1B.1 |
| <i>Ribes divaricatum</i> ssp. <i>parishii</i> Parish' gooseberry | — | — | 1A |
| <i>Scutellaria bolanderi</i> ssp. <i>austromontana</i> southern mountains skullcap | — | — | 1B.2 |
| <i>Senecio aphanactis</i> chaparral ragwort | — | — | 2B.2 |
| <i>Symphyotrichum defoliatum</i> San Bernardino aster | — | — | 1B.2 |
| <i>Symphyotrichum greatae</i> Greata's aster | — | — | 1B.3 |

TABLE 2
SPECIAL STATUS PLANT SPECIES KNOWN
FROM THE VICINITY OF THE SURVEY AREAS

| Species | Status | | | | | | | | |
|---|---------------------|------|------|------------------------|---------------------|--------------------|--------------------|-------------------|--|
| | USFWS | CDFG | CRPR | | | | | | |
| <i>Thelypteris puberula</i> var. <i>sonorensis</i> Sonoran maiden fern | — | — | 2B.2 | | | | | | |
| LEGEND: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><u>Federal (USFWS)</u></td> <td style="width: 50%; border: none;"><u>State (CDFG)</u></td> </tr> <tr> <td style="border: none;">FE Endangered</td> <td style="border: none;">SE Endangered</td> </tr> <tr> <td style="border: none;">FC Candidate</td> <td style="border: none;"></td> </tr> </table> <u>California Rare Plant Rank (CRPR)</u> 1A Plants Presumed Extinct in California 1B Plants Rare, Threatened, or Endangered in California and Elsewhere 2 Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere 3 Plants About Which We Need More Information – A Review List 4 Plants of Limited Distribution – A Watch List <u>Threat Code Extensions</u> .1 Seriously Threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat) .2 Fairly Threatened in California (20–80% of occurrences threatened/moderate degree and immediacy of threat) .3 Not Very Threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known) | | | | <u>Federal (USFWS)</u> | <u>State (CDFG)</u> | FE Endangered | SE Endangered | FC Candidate | |
| <u>Federal (USFWS)</u> | <u>State (CDFG)</u> | | | | | | | | |
| FE Endangered | SE Endangered | | | | | | | | |
| FC Candidate | | | | | | | | | |

Reference populations were monitored for annual and difficult-to-detect target species to ensure that the scheduled surveys were comprehensive and conducted during these species' appropriate blooming period. Southern tarplant (*Centromadia parryi* ssp. *australis*) was observed blooming on July 12, 2011 in Costa Mesa, Parry's spineflower (*Chorizanthe parryi* var. *parryi*) was observed blooming on April 26, 2011 in Rialto, and slender-horned spineflower (*Dodecahema leptoceras*) was observed blooming on April 28, 2011 in Santa Clarita. Based on the reference population monitoring, the Project surveys were conducted during a time frame when the target plant species were observable.

According to the National Weather Service (NWS), the region (data taken from downtown Los Angeles) received 20.20 inches of precipitation for the 2011 water year (i.e., between July 1, 2010 and June 30, 2011), which is about 133 percent of the normal average (NWS 2011). Therefore, precipitation for the year was conducive for conducting special status plant surveys.

Surveys were conducted by BonTerra Biologists Jennifer Pareti, Jeff Crain, and Allison Rudalevige and Consulting Botanist Sandra Leatherman. The survey dates and personnel are listed below in Table 3. Early surveys were conducted in all reaches in April and May for early-blooming special status plant species. Late surveys were not conducted for Reaches 42, 43, and 98 because the early surveys determined that suitable habitat for late-blooming special status plant species was not present along these reaches. A total of 78 person-hours were spent conducting all surveys.

TABLE 3
SURVEY DATES AND PERSONNEL

| Reach | Early Survey | Surveyors | Late Survey | Surveyors |
|-------|----------------|--------------------|----------------|--------------------|
| 39 | April 22, 2011 | Pareti, Leatherman | August 1, 2011 | Pareti, Leatherman |
| 40 | May 3, 2011 | Rudalevige, Crain | July 22, 2011 | Pareti, Leatherman |
| 41 | May 3, 2011 | Rudalevige, Crain | July 22, 2011 | Pareti, Leatherman |
| | | | July 27, 2011 | Pareti, Leatherman |
| 42 | April 22, 2011 | Pareti, Leatherman | no survey | |
| 43 | May 3, 2011 | Pareti, Leatherman | no survey | |
| 44 | May 3, 2011 | Pareti, Leatherman | August 1, 2011 | Pareti, Leatherman |
| 98 | April 22, 2011 | Pareti, Leatherman | no survey | |

All potentially suitable habitats for special status plant species within the survey areas were systematically surveyed. The survey areas included habitats on the earthen bottom of each channel reach but also on the adjacent channel banks where appropriate. All plant species observed were recorded in field notes. Plant species were identified in the field or collected for later identification. Plants were identified to the taxonomic level necessary to determine whether or not they are a special status species. Plants were identified using taxonomic keys, descriptions, and illustrations in Baldwin et al. (2011), Hickman (1993), Munz (1974), Abrams (1923, 1944, 1951), and Abrams and Ferris (1960). Taxonomy and nomenclature follows Baldwin et al. (2011), Hickman (1993), and current scientific journals for scientific and common names. Any voucher specimens collected will be deposited with the herbarium at Rancho Santa Ana Botanic Gardens in Claremont, California.

SITE DESCRIPTION

Vegetation Types

Vegetation types and other areas mapped in the survey areas consists of 18 mapping units, described below¹.

Coastal sage scrub is present in Reach 39. This native vegetation type is dominated by California sagebrush (*Artemisia californica*) with desert brittlebush (*Encelia farinosa*), coastal prickly-pear (*Opuntia littoralis*), scale broom (*Lepidospartum squamatum*), and laurel sumac (*Malosma laurina*). The understory is relatively open and dominated by small native annual forbs including coastal deerweed (*Acmispon glaber*), popcorn flower (*Cryptantha* spp.), and non-native grasses.

Alluvial sage scrub is present in Reach 39. This native vegetation type is dominated by scale broom, with California sagebrush, desert brittlebush, and coastal goldenbush (*Isocoma menziesii*) occurring throughout. Western sunflower (*Helianthus annuus*), telegraph weed (*Heterotheca grandiflora*), strigose lotus (*Acmispon strigosus*), and common plantain (*Plantago major*) are present in the understory.

Disturbed alluvial sage scrub is present in Reach 40a. This native vegetation type is in the vicinity of the alluvial sage scrub described above. The overstory of this vegetation type is dominated by scale broom, with California sagebrush, desert brittlebush, and coastal goldenbush. The shrub cover is much less dense in these areas due to disturbance. The understory is dominated by non-native forbs, including common plantain, weedy cudweed (*Pseudognaphalium luteoalbum*), as well as crimson fountain grass (*Pennisetum*

¹ Vegetation mapping was conducted on June 23 and 24, 2011 by BonTerra Senior Biologist Brian Daniels and Biologist Jennifer Pareti.

setaceum) and wild oat (*Avena* sp). Non-native common oleander (*Nerium oleander*) is also present in this vegetation area.

Non-native grassland is present in Reaches 43a and 43b. This vegetation type is composed of non-native grass species including rattail fescue (*Festuca myuros*), ripgut grass (*Bromus diandrus*), hare barley (*Hordeum murinum* var. *leporinum*), and perennial ryegrass (*Festuca perennis*). Additional non-native forbs are present throughout including tocalote (*Centaurea melitensis*), Italian thistle (*Carduus pycnocephalus* ssp. *pycnocephalus*), and white sweetclover (*Melilotus alba*). A small number of scattered Goodding's black willows (*Salix gooddingii*) were also present.

Ruderal (weedy) areas are present in Reaches 39, 40a, 40b, 41, 42, 43a, 43b, and 44. This vegetation type consists of areas that have been previously disturbed and now primarily support non-native vegetation with some weedy native vegetation that is well-adapted to disturbed conditions and high nitrogen soils. These areas occur adjacent to the developed areas or in the more upland areas of the SBC reaches. Species present in these areas include western sunflower, Italian thistle, white sweetclover, curly dock (*Rumex crispus*), bermuda grass (*Cynodon dactylon*), tall umbrella-sedge (*Cyperus eragrostis*), willow weed (*Persicaria* [*Polygonum*] *laphifolium*), annual beard grass (*Polypogon monspeliensis*), shortpod mustard (*Hirschfeldia incana*), smilo grass (*Piptatherum miliaceum*), Douglas' nightshade (*Solanum douglasii*), common horseweed (*Erigeron canadensis*), radish (*Raphanus sativus*), castor bean (*Ricinus communis*), and garland daisy (*Glebionis coronaria* [*Chrysanthemum coronarium*]). Scattered sandbar willow (*Salix exigua*) and mule fat (*Baccharis salicifolia*) were also present in these areas.

Ruderal/open water areas are present in Reaches 40b and 41. These areas are dominated by the ruderal species listed above that have been flooded by approximately one foot or more of water. These areas are generally outside the low-flow channel and, at some locations, the flooded area extends from the toe of slope to toe of slope of the SBC reaches.

Ruderal marsh is present in Reach 44. This vegetation type is dominated by low-growing herbaceous non-native species that are either rooted in the water or rooted directly adjacent to the water. The ruderal marsh in these SBC reaches is dominated by willow weed, white sweetclover, and tall umbrella-sedge. Scattered bulrush (*Scirpus* sp.) was also present in these areas.

Freshwater marsh is present in Reaches 40a, 40b, 43b, and 44. This native vegetation type is dominated by bulrush and cattails (*Typha* spp.), which are emergent plants that grow in one or more feet of water. This vegetation type is typically found adjacent to the open water areas of the SBC reaches. This vegetation type's boundaries are constantly changing due to changes in the water levels and the rapid growth of this species. Plant species in low densities within the bulrush and cattails include sedges (*Cyperus* spp.), willow weed, and great marsh evening primrose (*Oenothera elata* ssp. *hirsutissima*) with occasional scattered mature Goodding's black willows.

Mixed willow riparian scrub is present at Reaches 40a, 40b, 41, 42, 43b, and 44. This native vegetation type is dominated by Goodding's black willow, arroyo willow (*Salix lasiolepis*), and narrow-leaved willow (*Salix exigua*). This vegetation type typically consists of relatively small stands of willows. The willows are of various sizes and heights due to differing frequencies of scouring from rain events. The willows range from seedlings to trees, the tallest of which are approximately 20 feet high. This vegetation type differs from the willow riparian forest vegetation type by the size of the patch; the overall height of the patch; and the density of the understory. The understory in mixed willow riparian scrub varies at each SBC reach in the amount of non-native and native herbaceous species to unvegetated wash under the trees. The herbaceous species in some of the understory areas include mule fat, mugwort (*Artemisia douglasiana*), giant reed (*Arundo donax*), hoary nettle (*Urtica dioica* ssp. *holosericea*), desert wild grape (*Vitis girdiana*), and California dodder (*Cuscuta californica*).

Mixed willow riparian forest is present at Reaches 40b, 43a, 43b, 44, and 98. This native vegetation type is dominated by Goodding's black willow. This vegetation type varies from the mixed willow riparian scrub vegetation type described above in that the canopy contains larger trees (i.e., greater than 20 feet in height) and the canopy tends to be more dense. The mixed willow riparian forest has more than a few large willow trees in each patch; has trees over 20 feet tall; and has a denser understory. The understory is sparse and dominated by willow seedlings and saplings with the occasional mule fat and giant reed distributed throughout.

Mule fat scrub is present in Reaches 39, 40a, 40b, 43a, 43b, and 44. This native vegetation type is dominated by mule fat, with scattered narrow-leaved willow, willow weed, western sunflower (*Helianthus annuus*), California dodder, great marsh evening primrose, Douglas' nightshade, and non-native species such as castor bean, curly dock, shortpod mustard and Spanish sunflower (*Pulicaria paludosa*).

Coast live oak woodland is present in Reach 98. This native vegetation type is dominated by dense stands of coast live oak (*Quercus agrifolia*) rooted in or adjacent to the banks of the SBC reach. The understory is dominated by native and non-native species such as mugwort, narrow leaved bedstraw (*Galium angustifolium*) ornamental species such as English ivy (*Hedera helix*); and ruderal species such as smilo grass and other non-native grasses.

Ornamental areas are present in Reaches 40a and 44. This non-native vegetation type consists of introduced trees and shrubs planted for aesthetic purposes. A wide variety of ornamental landscaping occurs adjacent to the SBC reaches in conjunction with existing developments. Many of these ornamental species (including trees, shrubs, and other ground covers) have spread into the channel reaches in varying amounts. Ornamental vegetation has formed large patches in some channel reaches. Reach 40a has an ornamental area occurring in the center of the SBC reach which is dominated by mature mulberry trees (*Morus* sp.). SBC Reach 44 has ornamental areas present dominated by ash trees (*Fraxinus* sp.), carob trees (*Ceratonia siliqua*), and gum trees (*Eucalyptus* spp.).

Unvegetated wash is present in Reaches 40a, 40b, 41, 43b, and 44. Unvegetated wash is not a vegetation type, but is delineated as a mapping unit on the vegetation maps. Unvegetated wash in the SBC reaches consists of bare sand or silt that does not contain any vegetation. These areas have been scoured and are typically colonized by riparian vegetation following scouring events.

Open water was present at the time of surveys and mapped in all nine SBC reaches of this feasibility study. Open water is not a vegetation type, but is delineated as a mapping unit on the vegetation maps. Open water typically consists of fresh water in the center of the SBC reaches that was either flowing or ponding. These areas generally contain little to no vegetation.

Disturbed areas are present in Reach 43a. This is not a vegetation type, but is delineated as a mapping unit on the vegetation maps. In this SBC reach, disturbed areas primarily consist of dirt roads. These areas typically contain exposed soil without concrete or development and little to no vegetation.

UngROUTED riprap is present in Reaches 40a and 40b. Both grouted riprap and riprap that is not grouted are generally mapped as developed areas on vegetation maps. UngROUTED riprap, however, can support substantial amounts of vegetation while grouted riprap typically supports very little vegetation. As a result, ungrouted riprap is delineated as a separate mapping unit on the vegetation maps. UngROUTED riprap is present on portions of the channel banks. Most vegetation present in ungrouted riprap in these two SBC reaches consists of ornamental and non-native ruderal species.

Developed areas are present in Reaches 39, 40a, 40b, 41, 42, 43a, 43b, and 44. This is not a vegetation type, but is delineated as a mapping unit on the vegetation maps. These areas are man-made structures

that contain little to no vegetation. Any vegetation that is present typically consists of non-native ruderal species similar to that described above or invasive species such as fan palms (*Washingtonia* sp.), tree of heaven (*Ailanthus altissima*), and tree tobacco (*Nicotiana glauca*).

Special Status Plants

The special status plant species known to occur in the vicinity of the survey areas and their potential to occur along each channel reach is shown in Table 4. The potential was determined based upon the presence of suitable habitat in each survey area.

**TABLE 4
 SPECIAL STATUS PLANT SPECIES KNOWN FROM THE VICINITY
 OF THE SURVEY AREAS AND THEIR POTENTIAL TO OCCUR
 IN EACH CHANNEL REACH**

| Species | Reach | | | | | | |
|--|-------|----|----|----|----|----|----|
| | 39 | 40 | 41 | 42 | 43 | 44 | 98 |
| <i>Astragalus brauntonii</i> Braunton's milk-vetch | — | — | — | — | — | — | — |
| <i>Atriplex parishii</i> Parish's saltbush | — | — | — | — | — | — | — |
| <i>Atriplex serenana</i> var. <i> davidsonii</i> Davidson's saltbush | — | — | — | — | — | — | — |
| <i>Berberis nevii</i> Nevin's barberry | P | P | P | P | P | P | P |
| <i>California macrophylla</i> round-leaved filaree | — | — | — | — | — | — | — |
| <i>Calochortus clavatus</i> var. <i> gracilis</i> slender mariposa lily | — | — | — | — | — | — | — |
| <i>Calochortus plummerae</i> Plummer's mariposa lily | — | — | — | — | — | — | — |
| <i>Calochortus weedii</i> var. <i> intermedius</i> intermediate mariposa lily | — | — | — | — | — | — | — |
| <i>Centromadia parryi</i> ssp. <i> australis</i> southern tarplant | P | P | P | — | — | P | — |
| <i>Chorizanthe parryi</i> var. <i> parryi</i> Parry's spineflower | P | P | P | P | P | P | — |
| <i>Cladium californicum</i> California saw-grass | — | — | — | — | — | — | — |
| <i>Cuscuta obtusiflora</i> var. <i> glandulosa</i> Peruvian dodder | — | — | — | — | — | — | — |
| <i>Dodecahema leptoceras</i> slender-horned spineflower | P | P | P | P | P | P | — |
| <i>Dudleya cymosa</i> ssp. <i> crebrifolia</i> San Gabriel River dudleya | — | — | — | — | — | — | — |
| <i>Dudleya densiflora</i> San Gabriel Mountains dudleya | — | — | — | — | — | — | — |
| <i>Dudleya multicaulis</i> many-stemmed dudleya | — | — | — | — | — | — | — |

TABLE 4
SPECIAL STATUS PLANT SPECIES KNOWN FROM THE VICINITY
OF THE SURVEY AREAS AND THEIR POTENTIAL TO OCCUR
IN EACH CHANNEL REACH

| Species | Reach | | | | | | |
|---|-------|----|----|----|----|----|----|
| | 39 | 40 | 41 | 42 | 43 | 44 | 98 |
| <i>Galium grande</i> San Gabriel bedstraw | — | — | — | — | — | — | — |
| <i>Hordeum intercedens</i> vernal barley | — | — | — | — | — | — | — |
| <i>Horkelia cuneata</i> ssp. <i>puberula</i> mesa horkelia | — | — | — | — | — | — | — |
| <i>Imperata brevifolia</i> California satintail | — | — | — | — | — | — | — |
| <i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields | — | — | — | — | — | — | — |
| <i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass | P | P | — | — | — | — | — |
| <i>Navarretia prostrata</i> prostrate vernal pool navarretia | — | — | — | — | — | — | — |
| <i>Orcuttia californica</i> California Orcutt grass | — | — | — | — | — | — | — |
| <i>Orobanche valida</i> ssp. <i>valida</i> Rock Creek broomrape | — | — | — | — | — | — | — |
| <i>Phacelia stellaris</i> Brand's star phacelia | — | — | — | — | — | — | — |
| <i>Ribes divaricatum</i> ssp. <i>parishii</i> Parish' gooseberry | P | P | P | P | P | P | P |
| <i>Scutellaria bolanderi</i> ssp. <i>austromontana</i> southern mountains skullcap | — | — | — | — | — | — | — |
| <i>Senecio aphanactis</i> chaparral ragwort | — | — | — | — | — | — | — |
| <i>Symphyotrichum defoliatum</i> San Bernardino aster | — | — | — | — | — | — | — |
| <i>Symphyotrichum greatae</i> Greata's aster | P | — | — | — | — | — | P |
| <i>Thelypteris puberula</i> var. <i>sonorensis</i> Sonoran maiden fern | — | — | — | — | — | — | — |
| LEGEND: | | | | | | | |
| P Potential to occur due to the presence of suitable habitat. | | | | | | | |
| - Not expected to occur due to the absence of suitable habitat. | | | | | | | |


SURVEY RESULTS

Two surveys were conducted in each of the survey areas, with the exception of Reaches 42, 43, and 98. One survey was conducted in these two reaches due to habitat type and potential plant species occurring there. No special status plant species were observed during the focused surveys. A list of all plants observed within each reach during focused surveys can be found in Attachment A. Although reference

populations and regional rainfall amounts were monitored to ensure the scientific adequacy of these focused surveys, there is always a minimal potential for false negative survey results as species could possibly be present on a site but may not be detectable at the time of the surveys.

If you have any comments or questions, please call Marc Blain at (626) 351-2000.

Sincerely,
BonTerra Psomas


Ann M. Johnston
Vice President, Resource Management


Marc T. Blain
Senior Project Manager

Attachment A – Plant Compendium

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ATTACHMENT A
PLANT COMPENDIUM

PLANTS OBSERVED WITHIN EACH REACH DURING FOCUSED SURVEYS

| Species | | Reach 39 | Reach 40 | Reach 41 | Reach 42 | Reach 43 | Reach 44 | Reach 98 |
|---|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| PTERIDOPHYTES - FERNS AND ALLIES | | | | | | | | |
| <i>PTERIDACEAE</i> - BRAKE FAMILY | | | | | | | | |
| <i>Pellaea andromedifolia</i> | coffee fern | x | | | | | | |
| <i>Pellaea mucronata</i> | bird's foot fern | x | | | | | | |
| <i>Pentagramma triangularis</i> ssp. <i>triangularis</i> | goldenback fern | x | | | | | | |
| GYMNOSPERMS | | | | | | | | |
| ANGIOSPERMAE - FLOWERING PLANTS | | | | | | | | |
| DICOTYLEDONES | | | | | | | | |
| <i>ADOXACEAE</i> - MUSKROOT FAMILY | | | | | | | | |
| <i>Sambucus nigra</i> ssp. <i>caerulea</i> | blue elderberry | x | x | | x | x | x | |
| <i>AMARANTHACEAE</i> - AMARANTH FAMILY | | | | | | | | |
| <i>Amaranthus albus</i> * | tumbleweed | | | x | | | x | |
| <i>ANACARDIACEAE</i> - SUMAC FAMILY | | | | | | | | |
| <i>Malosma laurina</i> | laurel sumac | x | x | | | | | |
| <i>APIACEAE (UMBELLIFERAE)</i> - CARROT FAMILY | | | | | | | | |
| <i>Conium maculatum</i> * | poison hemlock | x | x | x | | x | x | |
| <i>Daucus pusillus</i> | rattlesnake weed | x | | | | | | |
| <i>Foeniculum vulgare</i> * | sweet fennel | | | x | | | | |
| <i>APOCYNACEAE</i> - DOGBANE FAMILY | | | | | | | | |
| <i>Nerium oleander</i> * | common oleander | | x | x | | | | |
| <i>ARALIACEAE</i> - GINSENG FAMILY | | | | | | | | |
| <i>Hedera helix</i> * | English ivy | | | | | | | x |
| <i>ASTERACEAE (COMPOSITAE)</i> - SUNFLOWER FAMILY | | | | | | | | |
| <i>Acourtia microcephala</i> | sacapellote | | | | | | x | |
| <i>Ambrosia acanthicarpa</i> | annual bur-sage | x | x | x | | | | |
| <i>Ambrosia psilostachya</i> | western ragweed | | x | | | | x | |
| <i>Anthemis cotula</i> * | mayweed | | x | | | | x | |
| <i>Artemisia californica</i> | California sagebrush | x | x | x | | | x | |
| <i>Artemisia douglasiana</i> | mugwort | | x | | | | | x |
| <i>Baccharis pilularis</i> | coyote brush | | | x | | | | |
| <i>Baccharis salicifolia</i> ssp. <i>salicifolia</i> [<i>Baccharis salicifolia</i>] | mule fat | x | x | x | | x | x | x |

PLANTS OBSERVED WITHIN EACH REACH DURING FOCUSED SURVEYS

| Species | | Reach 39 | Reach 40 | Reach 41 | Reach 42 | Reach 43 | Reach 44 | Reach 98 |
|---|-------------------------------|----------|----------|----------|----------|----------|----------|----------|
| <i>Bidens frondosa</i> | sticktight | x | | x | | x | | |
| <i>Bidens pilosa</i> * | common beggar-ticks | | | x | | | | |
| <i>Brickellia californica</i> | California brickellbush | x | | | | | | |
| <i>Carduus pycnocephalus</i> var. <i>pycnocephalus</i> * | Italian thistle | x | | x | | x | x | x |
| <i>Centaurea benedicta</i> [<i>Cnicus benedictus</i>]* | blessed thistle | | | x | | | | |
| <i>Centaurea melitensis</i> * | toçalote/Maltese star thistle | x | x | x | x | x | | |
| <i>Centaurea solstitialis</i> * | yellow star-thistle | | | x | | | | |
| <i>Cirsium vulgare</i> * | bull thistle | | | | x | | | |
| <i>Erigeron bonariensis</i> [<i>Conyza bonariensis</i>]* | flax-leaved horseweed | | | | x | | | |
| <i>Erigeron canadensis</i> [<i>Conyza canadensis</i>] | common horseweed | x | x | x | x | x | x | |
| <i>Cotula australis</i> * | Australian cotula | | | | x | | | |
| <i>Cotula coronopifolia</i> * | brass-buttons | | | | x | | | |
| <i>Encelia farinosa</i> | brittlebush | x | | | | | | |
| <i>Euthamia occidentalis</i> | western goldenrod | | | | | | x | |
| <i>Glebionis coronaria</i> [<i>Chrysanthemum coronarium</i>]* | garland daisy | | x | x | x | x | x | |
| <i>Gnaphalium palustre</i> | lowland cudweed | | | | x | | | |
| <i>Helianthus annuus</i> | western sunflower | x | x | x | x | | x | |
| <i>Helminthotheca echioides</i> [<i>Picris echioides</i>] * | bristly ox-tongue | x | | | | | | |
| <i>Heterotheca grandiflora</i> | telegraph weed | | x | x | | | | |
| <i>Heterotheca sessiliflora</i> | sessileflower goldenaster | | x | | | | | |
| <i>Isocoma menziesii</i> | goldenbush | | x | | | | | |
| <i>Lactuca serriola</i> * | prickly lettuce | x | x | x | x | x | | |
| <i>Lepidospartum squamatum</i> | scale-broom | x | x | | | | | |
| <i>Logfia filaginoides</i> [<i>Filago californica</i>] | California cottonrose | x | x | | | | | |
| <i>Logfia gallica</i> [<i>Filago gallica</i>] * | daggerleaf cottonrose | x | | | | | | |
| <i>Malacothrix saxatilis</i> | cliff malacothrix | | x | | | | | |
| <i>Pseudognaphalium canescens</i> [<i>Gnaphalium canescens</i>] | everlasting | | x | | | | | |
| <i>Pseudognaphalium luteoalbum</i> [<i>Gnaphalium luteoalbum</i>] * | weedy cudweed | | x | x | | | x | |
| <i>Pulicaria paludosa</i> * | Spanish sunflower | | | | | | x | |
| <i>Silybum marianum</i> * | milk thistle | x | | x | | | | |
| <i>Sonchus asper</i> ssp. <i>asper</i> * | prickly sow thistle | x | | | | | | |

PLANTS OBSERVED WITHIN EACH REACH DURING FOCUSED SURVEYS

| Species | | Reach 39 | Reach 40 | Reach 41 | Reach 42 | Reach 43 | Reach 44 | Reach 98 |
|---|-------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <i>Sonchus oleraceus</i> * | common sow thistle | | x | x | x | x | x | x |
| <i>Symphotrichum subulatum</i> [<i>Aster subulatum</i> var. <i>ligulatum</i>] | slender aster | | | | | | x | |
| <i>Xanthium spinosum</i> | spiny cocklebur | | | x | | | | |
| <i>Xanthium strumarium</i> | cocklebur | x | x | x | | | x | |
| BORAGINACEAE - BORAGE FAMILY | | | | | | | | |
| <i>Amsinckia menziesii</i> [<i>Amsinckia menziesii</i> var. <i>menziesii</i>] | rigid fiddleneck | | | | | | | x |
| <i>Cryptantha intermedia</i> | common cryptantha | x | | | | | | |
| <i>Eriodictyon</i> sp. | yerba santa | | x | | | | | |
| <i>Heliotropium curassavicum</i> var. <i>oculatum</i> | salt heliotrope / alkali heliotrope | | | x | | | x | |
| <i>Pectocarya linearis</i> | slender pectocarya | x | | | | | | |
| <i>Phacelia cicutaria</i> | caterpillar phacelia | x | | x | | | | |
| <i>Phacelia ramosissima</i> | branching phacelia | x | | | | | | |
| <i>Phacelia</i> sp. | phacelia | x | | | | | | |
| BRASSICACEAE (CRUCIFERAE) - MUSTARD FAMILY | | | | | | | | |
| <i>Brassica nigra</i> * | black mustard | x | x | | | | | |
| <i>Capsella bursa-pastoris</i> * | shepherd's purse | | | | x | | | |
| <i>Hirschfeldia incana</i> * | shortpod mustard | x | x | x | x | x | x | x |
| <i>Lepidium dityotum</i> [<i>Coronopus didymus</i>]* | lesser wart cress | | | | x | | | |
| <i>Lepidium latifolium</i> * | broad-leaved peppergrass | | x | x | | | x | |
| <i>Lobularia maritima</i> * | sweet alyssum | x | | x | | | | |
| <i>Nasturtium officinale</i> [<i>Rorippa nasturtium-aquaticum</i>]* | water cress | x | | | | | | |
| <i>Raphanus sativus</i> * | radish | | x | x | x | x | x | x |
| <i>Sisymbrium orientale</i> * | hare's ear cabbage | x | | | | | | |
| CACTACEAE - CACTUS FAMILY | | | | | | | | |
| <i>Opuntia ficus-indica</i> * | mission prickly-pear | | | x | | | | |
| CARYOPHYLLACEAE - PINK FAMILY | | | | | | | | |
| <i>Cerastium glomeratum</i> * | sticky mouse-ear chickweed | x | | | | | | |
| <i>Stellaria media</i> * | common chickweed | | | | | | | x |

PLANTS OBSERVED WITHIN EACH REACH DURING FOCUSED SURVEYS

| Species | | Reach 39 | Reach 40 | Reach 41 | Reach 42 | Reach 43 | Reach 44 | Reach 98 |
|---|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| CHENOPODIACEAE - GOOSEFOOT FAMILY | | | | | | | | |
| <i>Chenopodium album</i> * | lamb's quarters | x | x | x | | | x | |
| <i>Dysphania ambrosioides</i> [<i>Chenopodium ambrosioides</i>] * | Mexican tea | x | | x | | | | |
| <i>Salsola tragus</i> * | Russian thistle | x | | x | | | | |
| CONVOLVULACEAE - MORNING-GLORY FAMILY | | | | | | | | |
| <i>Calystegia macrostegia</i> | morning-glory | | | x | | | | |
| <i>Convolvulus arvensis</i> * | bindweed | | | x | | | | |
| <i>Cuscuta californica</i> | chaparral dodder | | x | | | x | x | |
| CRASSULACEAE - STONECROP FAMILY | | | | | | | | |
| <i>Crassula connata</i> | pygmy-weed | x | | | | | | |
| <i>Dudleya</i> sp. | dudleya | x | | | | | | |
| EUPHORBIACEAE - SPURGE FAMILY | | | | | | | | |
| <i>Chamaesyce</i> sp.* | spurge | | x | | | | | |
| <i>Euphorbia pepulus</i> * | petty spurge | x | | | | | | |
| <i>Ricinus communis</i> * | castor bean | x | x | x | x | x | x | |
| FABACEAE (LEGUMINOSAE) - LEGUME FAMILY | | | | | | | | |
| <i>Acacia baileyana</i> * | cootamundra wattle | x | | | | | | |
| <i>Acmispon americanus</i> [<i>Lotus purshianus</i>] | lotus | | x | | | | | |
| <i>Acmispon strigosus</i> [<i>Lotus strigosus</i>] | strigose lotus | | x | | | | | |
| <i>Acmispon glaber</i> [<i>Lotus scoparius</i>] | deerweed | x | x | x | | | | |
| <i>Lupinus bicolor</i> | miniature lupine | | | x | | | | |
| <i>Lupinus hirsutissimus</i> | stinging lupine | | x | | | | | |
| <i>Lupinus</i> sp. | lupine | | | x | | | | |
| <i>Medicago polymorpha</i> * | California burclover | | x | | | | | x |
| <i>Melilotus alba</i> * | white sweetclover | x | x | | | | x | |
| <i>Melilotus indica</i> * | sourclover | x | x | x | x | x | x | x |
| <i>Parkinsonia aculeata</i> * | Mexican palo verde | | | x | | | | |
| <i>Robinia psuedoacacia</i> * | black locust | | | x | | | | |
| <i>Vicia</i> sp. | vetch | | x | | | | | |
| FAGACEAE - OAK / BEECH FAMILY | | | | | | | | |
| <i>Quercus agrifolia</i> | coast live oak | | | x | | | | x |

PLANTS OBSERVED WITHIN EACH REACH DURING FOCUSED SURVEYS

| Species | | Reach 39 | Reach 40 | Reach 41 | Reach 42 | Reach 43 | Reach 44 | Reach 98 |
|--|---------------------|----------|----------|----------|----------|----------|----------|----------|
| GERANIACEAE - GERANIUM FAMILY | | | | | | | | |
| <i>Erodium botrys</i> * | long-beaked filaree | | | x | | | | |
| <i>Erodium cicutarium</i> * | red-stemmed filaree | x | x | | | | | |
| GROSSULARIACEAE - GOOSEBERRY FAMILY | | | | | | | | |
| <i>Ribes aureum</i> | golden currant | x | | | | | | |
| LAMIACEAE (LABIATAE) - MINT FAMILY | | | | | | | | |
| <i>Marrubium vulgare</i> * | common horehound | x | x | | | | | |
| <i>Salvia apiana</i> | white sage | x | | | | | | |
| <i>Salvia columbariae</i> | chia | x | | | | | | |
| <i>Salvia mellifera x apiana</i> | sage hybrid | | x | | | | | |
| MALVACEAE - MALLOW FAMILY | | | | | | | | |
| <i>Malva parviflora</i> * | cheeseweed | x | | | x | | x | x |
| MORACEAE - FIG FAMILY | | | | | | | | |
| <i>Ficus carica</i> * | edible fig | | | | | | | x |
| <i>Ficus elastica</i> * | rubber plant | | x | | | | | |
| <i>Ficus sp.</i> * | ornamental fig | x | | | | | | |
| <i>Morus alba</i> * | white mulberry | | x | x | | | | |
| SCROPHULARIACEAE- FIGWORT FAMILY [MYOPORACEAE - MYOPORUM FAMILY] | | | | | | | | |
| <i>Myoporum laetum</i> | myoporum | | | | | x | | |
| MYRSINACEAE - MYRSINE FAMILY | | | | | | | | |
| <i>Anagallis arvensis</i> * | scarlet pimpernel | x | | | x | | | |
| <i>Callistemon sp.</i> * | bottlebrush | | | | | | x | |
| <i>Eucalyptus sp.</i> * | gum | | x | x | | x | | |
| NYCTAGINACEAE - FOUR-O'CLOCK FAMILY | | | | | | | | |
| <i>Mirabilis jalapa</i> * | four-o'clock | x | | | | | | |
| OLEACEAE - OLIVE FAMILY | | | | | | | | |
| <i>Fraxinus sp.</i> * | ash | | x | | | x | x | x |
| ONAGRACEAE - EVENING PRIMROSE FAMILY | | | | | | | | |
| <i>Camissonia sp.</i> | suncup | | x | | | | | |
| <i>Epilobium canum</i> | California fuchsia | | x | | | | | |
| <i>Epilobium ciliatum</i> | willow-herb | x | | | | | | |

PLANTS OBSERVED WITHIN EACH REACH DURING FOCUSED SURVEYS

| Species | | Reach 39 | Reach 40 | Reach 41 | Reach 42 | Reach 43 | Reach 44 | Reach 98 |
|---|--------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <i>Ludwigia</i> sp.* | waterweed | | | | | | x | |
| <i>Oenothera elata</i> ssp. <i>hookeri</i> | evening primrose | | x | | | x | | |
| <i>Oenothera speciosa</i> * | showy-white evening primrose | | | | x | | | |
| PAPAVERACEAE - POPPY FAMILY | | | | | | | | |
| <i>Eschscholzia californica</i> | California poppy | x | | x | | | | |
| PHRYMACEAE - LOPSEED FAMILY | | | | | | | | |
| <i>Mimulus guttatus</i> | seep monkeyflower | x | x | x | | | x | x |
| PLANTAGINACEAE - PLANTAIN FAMILY | | | | | | | | |
| <i>Penstemon spectabilis</i> | royal penstemon | x | | | | | | |
| <i>Plantago erecta</i> | dwarf plantain / California plantain | | | x | | | | |
| <i>Plantago arenaria</i> [<i>Plantago indica</i>]* | sand plantain | | x | x | | | x | |
| <i>Plantago lanceolata</i> * | English plantain | | x | | | | x | |
| <i>Plantago major</i> * | common plantain | | | | x | | | x |
| <i>Veronica anagallis-aquatica</i> * | water speedwell | x | | | x | | | x |
| <i>Veronica</i> sp. | speedwell | x | | | | | | |
| POLEMONIACEAE - PHLOX FAMILY | | | | | | | | |
| <i>Allophyllum glutinosum</i> | blue false-gilia | | | x | | | | |
| <i>Eriastrum densifolium</i> ssp. <i>densifolium</i> | woolly-star | x | | | | | | |
| POLYGONACEAE - BUCKWHEAT FAMILY | | | | | | | | |
| <i>Eriogonum fasciculatum</i> | California buckwheat | x | x | x | | | | |
| <i>Persicaria lapathifolia</i> [<i>Polygonum lapathifolium</i>] | willow weed | | | x | | | x | |
| <i>Persicaria maculosa</i> [<i>Polygonum persicaria</i>]* | lady's thumb | x | | | | | | |
| <i>Polygonum aviculare</i> ssp. <i>depressum</i> [<i>Polygonum arenastrum</i>]* | common knotweed | x | | x | | | | |
| <i>Polygonum</i> sp. | knotweed | x | | | | | | |
| <i>Rumex crispus</i> * | curly dock | x | x | x | | x | x | x |
| PORTULACACEAE - PURSLANE FAMILY | | | | | | | | |
| <i>Portulaca oleracea</i> * | common purslane | | | x | | | x | |
| ROSACEAE - ROSE FAMILY | | | | | | | | |
| <i>Rubus ursinus</i> | California blackberry | | | | | x | | |

PLANTS OBSERVED WITHIN EACH REACH DURING FOCUSED SURVEYS

| Species | | Reach 39 | Reach 40 | Reach 41 | Reach 42 | Reach 43 | Reach 44 | Reach 98 |
|--|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| SALICACEAE - WILLOW FAMILY | | | | | | | | |
| <i>Populus</i> sp. | cottonwood | | | x | | | | |
| <i>Salix exigua</i> | narrow-leaved willow | | x | x | | x | x | |
| <i>Salix gooddingii</i> | Goodding's black willow | x | x | x | x | | x | |
| <i>Salix laevigata</i> | red willow | | x | | | x | | |
| <i>Salix lasiolepis</i> | arroyo willow | x | | | | x | x | x |
| <i>Koelreuteria bipinnata</i> * | Chinese flame tree | | | | | | x | |
| SCROPHULARIACEAE - FIGWORT FAMILY | | | | | | | | |
| <i>Verbascum virgatum</i> * | wand mullein | x | x | | | | x | |
| SIMAROUBACEAE - QUASSIA FAMILY | | | | | | | | |
| <i>Ailanthus altissima</i> * | tree of heaven | | | | | | x | |
| SOLANACEAE - NIGHTSHADE FAMILY | | | | | | | | |
| <i>Datura wrightii</i> | jimson weed | | | x | | | x | |
| <i>Nicotiana glauca</i> * | tree tobacco | x | | x | x | | | |
| <i>Solanum douglasii</i> | Douglas' nightshade | x | x | x | | x | | |
| <i>Solanum xanti</i> | chaparral nightshade | x | | | | | | |
| TAMARICACEAE - TAMARISK FAMILY | | | | | | | | |
| <i>Tamarix ramosissima</i> * | Mediterranean tamarix | x | | x | | | | |
| ULMACEAE - ELM FAMILY | | | | | | | | |
| <i>Ulmus parvifolia</i> * | Chinese elm | | | x | | | x | |
| URTICACEAE - NETTLE FAMILY | | | | | | | | |
| <i>Urtica dioica</i> ssp. <i>holosericea</i> | hoary nettle | x | | | | x | | |
| <i>Urtica urens</i> * | dwarf nettle | | | | x | | | |
| VERBENACEAE - VERVAIN FAMILY | | | | | | | | |
| <i>Verbena</i> sp. | verbena | | x | | | | | |
| VITACEAE - GRAPE FAMILY | | | | | | | | |
| <i>Vitis girdiana</i> | desert wild grape | | | | | x | | |
| ZYGOPHYLLACEAE - CALTROP FAMILY | | | | | | | | |
| <i>Tribulus terrestris</i> * | puncture vine | | | x | | | | |

PLANTS OBSERVED WITHIN EACH REACH DURING FOCUSED SURVEYS

| Species | | Reach 39 | Reach 40 | Reach 41 | Reach 42 | Reach 43 | Reach 44 | Reach 98 |
|--|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| MONOCOTYLEDONES - MONOCOTS | | | | | | | | |
| AGAVACEAE - CENTURY PLANT FAMILY | | | | | | | | |
| <i>Agave americana</i> * | century plant | | | x | | | | |
| <i>Hesperoyucca whipplei</i> [<i>Yucca whipplei</i>] | our Lord's candle | x | x | | | | | |
| ARECACEAE (PALMAE) - PALM FAMILY | | | | | | | | |
| <i>Phoenix</i> sp.* | date palm | | | | | | | x |
| <i>Washingtonia</i> sp. * | fan palm | x | | x | x | | x | x |
| CYPERACEAE - SEDGE FAMILY | | | | | | | | |
| <i>Cyperus involucratus</i> * | African umbrella-sedge | x | x | x | | | x | |
| <i>Cyperus</i> sp. | umbrella-sedge | | | | | x | | |
| <i>Eleocharis</i> sp. | spike rush | | | | | | | x |
| <i>Schoenoplectus americanus</i> [<i>Scirpus americanus</i>] | Olney's bulrush | | | | | | x | |
| <i>Schoenoplectus californicus</i> [<i>Scirpus californicus</i>] | southern bulrush | | | | | x | | |
| <i>Scirpus</i> sp. | sedge | | | | | | x | |
| JUNCACEAE - RUSH FAMILY | | | | | | | | |
| <i>Juncus bufonius</i> | toad rush | | | | x | | | |
| <i>Juncus</i> sp. | rush | | | x | | | | |
| POACEAE [GRAMINEAE] - GRASS FAMILY | | | | | | | | |
| <i>Arundo donax</i> * | giant reed | x | x | x | | x | x | |
| <i>Avena barbata</i> * | slender wild oat | | x | | | | | |
| <i>Avena</i> sp.* | wild oat | x | x | x | | | x | x |
| <i>Bromus arizonicus</i> | Arizona chess | | | | x | | | |
| <i>Bromus diandrus</i> * | ripgut grass | | x | x | x | x | x | x |
| <i>Bromus hordeaceus</i> * | soft chess | | x | | | | | |
| <i>Bromus madritensis</i> ssp. <i>rubens</i> * | red brome | x | x | x | | x | x | |
| <i>Cynodon dactylon</i> * | bermuda grass | | x | x | | | x | |
| <i>Distichlis spicata</i> | salt grass | | x | x | | | | |
| <i>Echinochloa crus-galli</i> * | barnyard grass | | x | x | x | | x | |
| <i>Elymus condensatus</i> [<i>Leymus condensatus</i>] | giant wild rye | | x | | | | | |
| <i>Festuca myuros</i> [<i>Vulpia myuros</i>] * | foxtail fescue | x | x | x | | x | x | |
| <i>Hordeum murinum</i> var. <i>leporinum</i> * | hare barley | | | | | | | x |

PLANTS OBSERVED WITHIN EACH REACH DURING FOCUSED SURVEYS

| Species | | Reach 39 | Reach 40 | Reach 41 | Reach 42 | Reach 43 | Reach 44 | Reach 98 |
|---|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <i>Leptochloa fusca</i> ssp. <i>uninervia</i> [<i>Leptochloa uninervia</i>] | Mexican sprangletop | | x | x | x | | x | |
| <i>Lolium perenne</i> * | perennial ryegrass | x | x | x | x | | x | |
| <i>Paspalum dilatatum</i> * | dallis grass | | | | | | x | |
| <i>Pennisetum setaceum</i> * | crimson fountain grass | | x | x | | | | |
| <i>Phalaris</i> sp. | canary grass | | x | | | | x | |
| <i>Piptatherum miliaceum</i> * | smilo grass / millett ricegrass | | x | x | | x | x | |
| <i>Polypogon monspeliensis</i> * | annual beard grass | x | x | x | x | | | x |
| <i>Polypogon</i> sp. | beard grass | x | | | | | | x |
| <i>Schismus barbatus</i> * | Mediterranean schismus | x | | | | | | |
| <i>Sorghum halepense</i> * | Johnson grass | | | x | | | x | |
| TYPHACEAE - CATTAIL FAMILY | | | | | | | | |
| <i>Typha</i> sp. | cattail | x | x | x | x | x | x | x |
| * non-native species | | | | | | | | |

RESULTS OF FISH SURVEY REPORT

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2013 Focused Survey Results

Los Angeles County Soft-Bottom Channels

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EXECUTIVE SUMMARY

Focused surveys for Threatened and Endangered species are conducted on a regular basis at selected soft-bottom channel reaches maintained by the Los Angeles County Department of Public Works (LACDPW). Annual biological monitoring and periodic habitat assessments of all LACDPW channel reaches serves to update and revise, when necessary, the particular channel reaches and species for which surveys are recommended. This report describes the methods and results of focused surveys for two Endangered species—unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) and Santa Ana sucker (*Catostomus santaanae*)—conducted at 30 channel reaches in 2013. Also included is a maintenance overview with respect to these species. The 2013 survey results are summarized below.

FISH

UNARMORED THREESPINE STICKLEBACK

Focused surveys for unarmored threespine stickleback were conducted in 2013 within the Santa Clara River drainage at the following 27 soft-bottom channel reaches:

- Santa Clara River Reaches 47, 51, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 66, 71, 82, and 109.
- Bouquet Canyon Creek Reaches 67, 69, 70, and 103.
- South Fork Santa Clara River Reaches 79 and 80, at the confluence of the Santa Clara and South Fork Santa Clara Rivers.
- Castaic Creek Reaches 86, 87, 97, and 104.
- San Francisquito Creek Reach 105.

These channel reaches have previously been identified as having potentially suitable breeding habitat during the spring and summer season for unarmored threespine stickleback when water is present.

The focused surveys were conducted by fisheries biologists that hold the necessary Section 10(a)(1)(A) permit (Scientific Permit) for this species. The unarmored threespine stickleback was not found at any of the 27 soft-bottom channel reaches in 2013. Only one reach—Reach 69, Bouquet Canyon Middle--was found to contain unarmored threespine stickleback during the 2012 focused surveys (BonTerra 2013). Although not detected during the 2013 surveys, previous focused surveys have detected unarmored threespine stickleback at Reaches 67, 69, 103, and 109 (BonTerra 2011).

Unarmored threespine stickleback typically breed in the spring and early summer and are normally found in pools and slow flowing clean water with abundant vegetation. As a result, this species would not be expected to occur in the reach until after storm events. Soft-bottom channel maintenance is conducted in the dry months between September and November. Therefore, if unarmored threespine stickleback were present, the maintenance activity would not be expected to impact breeding activities.

SANTA ANA SUCKER

Focused surveys for Santa Ana sucker were conducted in 2013 within the San Gabriel River and Los Angeles River drainages at three soft-bottom channel reaches:

- San Gabriel River Reach 39 (Beatty Channel Outlet).
- Los Angeles River Reaches 12 (Haines Creek Main Channel Outlet) and 13 (Project No. 5215 Unit 1).

These channel reaches have previously been identified as having potentially suitable breeding habitat for Santa Ana sucker during the spring and summer season when water is present.

The focused surveys were conducted by fisheries biologists that hold the necessary Section 10(a)(1)(A) permit (Scientific Permit) for this species. The results of focused surveys for the Santa Ana sucker were negative at all reaches. Previous focused surveys have not detected for Santa Ana sucker at any of the reaches surveyed (Table ES-1).

Santa Ana sucker typically breed in the spring and early summer and are normally found in clean, flowing water habitat containing a mixed structure of riffles, runs, glides, and pools. Soft-bottom channel maintenance is conducted in the dry months between September and November. Therefore, if Santa Ana sucker were present, these maintenance activities would not be expected to impact the species' breeding activities.

**TABLE ES-1
SUMMARY OF 2013 RESULTS OF FOCUSED SURVEYS FOR THE
LOS ANGELES COUNTY SOFT-BOTTOM CHANNELS**

| Reach Number | Reach Name/Tributary | Survey Date | Unarmored Threespine Stickleback P/A | Santa Ana Sucker P/A | Easting/Northing for 2013 Presence* | Prior Presence (Year)** |
|--------------------------------|---|-------------|--------------------------------------|----------------------|-------------------------------------|-------------------------|
| Los Angeles River (LAR) | | | | | | |
| 12 | Haines Creek Main Channel Outlet | 9/5/12 | N/A | Absent | – | – |
| 13 | Project No. 5215 Unit 1 | 8/30/12 | N/A | Absent | – | – |
| San Gabriel River (SGR) | | | | | | |
| 39 | Beatty Channel Outlet at SGR | 9/14/12 | N/A | Absent | – | – |
| Santa Clara River (SCR) | | | | | | |
| 47 | SCR (PD 1733 Unit 1) | 8/29/12 | Absent | N/A | – | – |
| 51 | Mint Canyon Main Channel Outlet (PD 1984) at SCR Main Channel | 9/5/12 | Absent | N/A | – | – |
| 54 | SCR Non-main Channel (PD 832) | 9/6/12 | Absent | N/A | – | – |
| 55 | SCR Channel (PDs 910, 832, 1758, and 1562 Unit 2) | 9/6/12 | Absent | N/A | – | – |
| 56 | SCR (PD 1562 Unit 2) | 9/6/12 | Absent | N/A | – | – |
| 58 | SCR (PD 374) | 9/6/12 | Absent | N/A | – | – |

**TABLE ES-1
SUMMARY OF 2013 RESULTS OF FOCUSED SURVEYS FOR THE
LOS ANGELES COUNTY SOFT-BOTTOM CHANNELS**

| Reach Number | Reach Name/Tributary | Survey Date | Unarmored Threespine Stickleback P/A | Santa Ana Sucker P/A | Easting/Northing for 2013 Presence* | Prior Presence (Year)** |
|--------------|---|-------------|--------------------------------------|----------------------|-------------------------------------|------------------------------|
| 59 | SCR (PD 374) | 9/6/12 | Absent | N/A | – | – |
| 60 | SCR (PD 1339 and 374) | 9/6/12 | Absent | N/A | – | – |
| 61 | SCR (PD 659) | 9/5/12 | Absent | N/A | – | – |
| 62 | SCR (PD 754) | 8/29/12 | Absent | N/A | – | – |
| 63 | Oak Avenue Rd Drainage (CDR 523.081) | 8/29/12 | Absent | N/A | – | – |
| 64 | Soledad Canyon Rd Drainage (CDR 523.071 D Outlet) | 8/29/12 | Absent | N/A | – | – |
| 66 | SCR (PD 1358) | 8/29/12 | Absent | N/A | – | – |
| 67 | Bouquet Canyon Upper (PDs 1201, 802, 700B and 625) | 8/30/12 | Absent | N/A | – | 2005, 2006, 2007 and 2008 |
| 69 | Bouquet Canyon Middle (PDs 722, 773, 1365, 1065 and 45) | 8/30/12 | Present | N/A | - | 2005, 2006, 2007, 2008, 2012 |
| 70 | Bouquet Canyon Lower (PDs 544 and 345) | 8/30/12 | Absent | N/A | – | – |
| 71 | SCR Main Channel (PD 1946) | 8/29/12 | Absent | N/A | – | – |
| 79 | South Fork SCR Valencia Blvd Bridge Stabilizer | 8/29/12 | Absent | N/A | – | – |
| 80 | South Fork SCR (PDs 1947 and 1946) | 8/29/12 | Absent | N/A | – | – |
| 82 | SCR Main Channel (PD 2278) | 9/6/12 | Absent | N/A | – | – |
| 86 | Violin Canyon Main Channel Outlet | 8/29/12 | Absent | N/A | – | – |
| 87 | Castaic Old Road Drain (CDR 525.021D) Outlet | 8/30/12 | Absent | N/A | – | – |
| 97 | Castaic Creek (PD 1982) | 8/30/12 | Absent | N/A | – | – |
| 103 | Bouquet Canyon Channel (PD 2225) | 9/5/12 | Absent | N/A | – | 2005, 2006, 2007 and 2008 |
| 104 | Castaic Creek (PD 2441 Unit 2) | 9/5/12 | Absent | N/A | – | – |

**TABLE ES-1
SUMMARY OF 2013 RESULTS OF FOCUSED SURVEYS FOR THE
LOS ANGELES COUNTY SOFT-BOTTOM CHANNELS**

| Reach Number | Reach Name/Tributary | Survey Date | Unarmored Threespine Stickleback P/A | Santa Ana Sucker P/A | Easting/Northing for 2013 Presence* | Prior Presence (Year)** |
|---------------------|---|--------------------|---|-----------------------------|--|--------------------------------|
| 105 | San Francisquito Channel (PD 2456) | 9/5/12 | Absent | N/A | - | - |
| 109 | SCR south bank west of McBean Pkwy (MTD 1510) | 9/5/12 | Absent | N/A | - | 2009, 2010 and 2011 |

N/A: Not applicable; no potential habitat for the species; therefore no survey conducted; P: present; A: absent.

* Easting/Northing information is provided only for those reaches where unarmored threespine stickleback or Santa Ana sucker were present.

** Sources: BonTerra; 2005, 2006, 2007, 2008, 2009, 2010, and 2011.

SECTION 1.0 INTRODUCTION

Since 2002, focused surveys and habitat assessments have been conducted on a regular basis for the LACDPW's soft-bottom channel maintenance program. The program includes both permitted and non-permitted soft-bottom channels reaches owned and managed by the LACDPW. The purpose of the surveys is to update baseline information on the occurrence or potential occurrence of Threatened or Endangered plant and wildlife species for permitted and non-permitted channel reaches.

Focused pre-clearing fish surveys for unarmored threespine stickleback and Santa Ana sucker are conducted annually. These surveys are performed by biologists with the necessary Scientific Permits in accordance with the requirements of the regulatory permits for maintenance of the soft-bottom channel reaches. The methods and results of these surveys are provided in this report. The survey information provides baseline data to support future regulatory agency permitting of the ongoing maintenance of these soft-bottom channel reaches. Appendix A includes a signed Surveyor Certificate Statement verifying the accuracy of the survey methods and results presented in this report.

1.1 ENVIRONMENTAL SETTING

1.1.1 REGIONAL SETTING

The topography in Los Angeles County is diverse, containing coastline, flatlands, mountains, and desert within approximately 4,000 square miles. Elevations within the County range from sea level to over 10,000 feet above mean sea level (msl). The climate ranges from mild near the coast to severe in the high mountains and in the desert. This variation in environments has created a unique and diverse collection of biological resources (England and Nelson 1976).

The San Gabriel Mountains are a prominent topographic feature that include a portion of the headwaters of the Santa Clara, Los Angeles, Rio Hondo, and San Gabriel Rivers, and are the source of streams that drain into the Antelope and Fremont Valleys. The San Gabriel Mountains rise 7,000 feet above msl from the Antelope and Santa Clarita Valleys, and exert considerable influence on the climate, hydrology, and ecology of the lands around them. The San Andreas and other numerous faults have fractured the mountains so that they erode at a rapid rate such that stream basins along the northern slope are generally characterized by steep headwaters and sloping alluvial beds on the adjacent flatlands (CRA et al. 2001).

There are 4 major rivers in Los Angeles County: the Los Angeles River is approximately 51 miles long (main stem) and drains 830 square miles; the Rio Hondo River is approximately 20 miles long (main stem) and drains 125 square miles; the San Gabriel River is approximately 59 miles long (main stem) and drains 350 square miles; and the Santa Clara River is approximately 75 miles long (main stem) and drains 1,616 square miles (LACDPW 2002). Numerous other streams also occur in Los Angeles County. Surface water in streams and rivers is generally only present during the winter and spring, in particular after storm events. Many storms do not generate sufficient runoff to sustain surface flow in all streams. In some areas, flows are supplemented with reclaimed water and agricultural and urban runoff. Particularly intense storms can result in flash floods or debris flows, which can carry large amounts of sediment, rocks, and debris to be deposited in the valley below (CRA et al. 2001).

The Los Angeles River system has been extensively channelized to provide flood protection as it passes through several cities on its way to the Pacific Ocean. The Los Angeles River tributaries include Bell Creek, Calabasas Creek, Burbank Western Channel, Pacoima Wash,

Tujunga Wash, Verdugo Wash, Arroyo Seco, Compton Creek, and the Rio Hondo River (LACDPW 2002). There are now over 400 miles of concrete-lined tributaries that feed into the main channel (LACDPW 2002). Approximately 47.9 miles of the 51-mile river is concrete-lined. The two stretches where the river is not lined (i.e., soft- or earthen-bottom channels) included the Sepulveda Flood Control Basin through the Glendale Narrows and south of Willow Street in Long Beach (LACDPW 2002). Reclaimed water enters the Los Angeles River at the Sepulveda Basin, where the Department of Water and Power releases as many as 75 million gallons of reclaimed water daily from the Donald C. Tillman Water Reclamation Plant.

The San Gabriel River begins in the Angeles National Forest and also flows through several cities on its way to the Pacific Ocean. The San Gabriel River tributaries include Walnut Creek, San Jose Creek, Coyote Creek, and numerous storm drains (LACDPW 2002). The headwaters of the San Gabriel River begin just north of Pasadena and northwest of Mount Wilson, where they flow through a steep canyon to Cogswell Reservoir. The west fork of the river then merges with the east fork and flows into the San Gabriel Reservoir. Below the reservoir, the main stem of the San Gabriel River flows through San Gabriel Canyon to Morris Reservoir. Below Morris Reservoir, the river flows through cities from Azusa to Seal Beach and empties into Long Beach Harbor.

The Santa Clara River is unique because it is the only major unchannelized river that drains the San Gabriel Mountains. The Santa Clara River is fed by five major tributaries: Sand Canyon, Mint Canyon, Bouquet Canyon, South Fork, and San Francisquito Canyon (LACDPW 2002). Further west, Castaic, Piru, Sespe, and Santa Paula Creeks join the river (CRA et al. 2001). The headwaters of the Santa Clara River are located near Acton, and the river runs approximately 100 miles to its outlet in the City of Ventura in Ventura County. Most development adjacent to the river is located in or near the City of Santa Clarita (LACDPW 2002).

1.1.2 LOCAL SETTING

In 2002, the LACDPW maintained 95 soft-bottom channel reaches located within the boundaries of the Los Angeles County Flood Control District, which consisted of 885.58 acres that required management. Since 2002, ten soft-bottom channel reaches have been removed due to development or ownership change, but several more have been added to the list. As of 2013, the LACDPW manages 106 channel reaches (1 thru 116) throughout Los Angeles County:

- Los Angeles River Watershed – 29 channel reaches (includes Reach 27).
- Dominguez Channel – 1 channel reach.
- Malibu Creek Watershed – 9 channel reaches.
- San Gabriel River Watershed – 8 channel reaches.
- Santa Clara River Watershed – 56 channel reaches.
- Ballona Creek – 1 channel reach.
- Antelope Valley – 1 channel reach.
- Cerritos Channel – 1 channel reach.

1.2 **PROJECT**

1.2.1 **BACKGROUND**

To effectively control flood waters from the mountainous watersheds surrounding the Los Angeles basin, the U.S. Army Corps of Engineers (USACE) and the Los Angeles County Flood Control District constructed concrete-bottom and earth-bottom channels leading from dams and debris basins located along the frontal slopes of the San Gabriel, Santa Monica, Verdugo, and Santa Susanna Mountains. Construction began in the 1930s. These channels, as a system, provide flood protection for Los Angeles County.

Channel maintenance activities have been performed regularly in Flood Control District channels for over 50 years. Originally constructed by the USACE, upon completion, most of the channel facilities were transferred to the Los Angeles County Flood Control District for cyclic maintenance. The USACE's maintenance guidelines require that debris, objectionable growth, shoals, and waste materials must not encroach on the invert. Excess materials that will not move readily with low flows must be removed. Measures must be taken to control objectionable growth by approved chemical or mechanical means.

The County formerly maintained channels clear of any vegetation, as required under the *Code of Federal Regulations* (33 CFR 208.10), until the California Department of Fish and Wildlife (CDFW) began requiring the County to clear vegetation on alternating sides of the channels each year. The USACE allowed limited clearing to occur between 1993 and 1995. Anticipated heavy rains during the 1997/1998 storm season caused by El Niño conditions resulted in a statewide need to remove vegetation and sediment from soft-bottom channels to restore their flood-carrying capacity. The LACDPW obtained all necessary permits to conduct this work in the 1997/1998 storm season and has continued the ongoing maintenance as approved by the permits.

1.2.2 **PROJECT DESCRIPTION**

Vegetative growth in a channel system reduces channel capacity. All soft-bottom channels were designed and constructed as relatively clean, unvegetated channels. As vegetation grows more densely, the roughness of the channel increases and the velocity of flows decrease, which corresponds to a loss in the channel's carrying capacity. The vegetation also traps some of the sediments being transported by flood flows which, when deposited, further reduce channel capacity. Studies have shown that increased vegetation and sediments in the channels result in reduced flow area with a concomitant decrease in flow velocity (LACDPW 1996). A loss of carrying capacity in the channels could cause flood flows to escape the channel systems and impact adjacent properties (LACDPW 1996).

Vegetation can also affect the structural integrity of bridges during a major storm event. Vegetation slows flood flows, which creates a backwater effect and increases water surface elevations upstream. Bridges are not normally designed to withstand the forces that result from significantly increased flood-water elevations. Additionally, increased flood depths upstream can result in flooding of adjacent properties and erosion of channel banks.

The LACDPW performs annual vegetation clearing in channels and minor grading to retrain channel flows consistent with the clearing limits established by the permitted maintenance plan (BonTerra 1999). This ongoing program is necessary to maintain the design capacities of the channels and to ensure the proper functioning of these facilities located within LACFCD boundaries.

Within each reach, the LACDPW vegetation clearing activities are conducted in the same areas (and acreage) that have been cleared annually since 1997. Biological impacts associated with the initial clearing of vegetation for maintenance activities in these channel reaches were previously mitigated through the maintenance and enhancement of 62.7 acres of riparian habitats at the Big Tujunga Wash Mitigation Bank site (BonTerra 1999).

Channel clearing activities are performed primarily by mechanical means, using heavy equipment (such as trucks, bulldozers, dump trucks, and loaders), as well as other specialized equipment designed for this type of work. Hand clearing is conducted in areas where mechanical equipment cannot be used or where important biological resources exist nearby. Herbicides approved by regulatory agencies are applied, as necessary, to eradicate invasive and/or non-native vegetation including, but not limited to, giant reed (*Arundo donax*) and castor bean (*Ricinus communis*).

The channel clearing activities are performed under an existing Maintenance Plan approved by the Los Angeles Regional Water Quality Control Board (RWQCB) and USACE and are modified by the CDFW under the existing Streambed Alteration Agreement between the CDFW and the LACDPW. BonTerra Psomas has reviewed the Maintenance Plan and has extensive knowledge of channel clearing activities in all channel reaches, having worked with the LACDPW since 1997 to provide biological monitoring of flood-control channel maintenance work. Pre-clearing and post-clearing photos have been taken every year to document the biological resources in these channel reaches in compliance with the mitigation requirements of existing permits from the USACE, RWQCB, and CDFW.

1.3 SPECIAL STATUS SPECIES BACKGROUND

In order to comply fully with the regulatory permits issued to the LACDPW, surveys are performed for a variety of special status species at soft-bottom channel reaches where suitable or potentially suitable habitat has been identified. These permits include required annual pre-clearing surveys for the federally and California State-listed Endangered, unarmored threespine stickleback and federally listed Threatened and California State-listed Species of Special Concern, Santa Ana sucker. Table 1 below shows the federal and State status of these two species.

**TABLE 1
STATUS OF SPECIES ADDRESSED**

| Species | Status | |
|---|--------|------|
| | USFWS | CDFW |
| <i>Gasterosteus aculeatus williamsoni</i> Unarmored threespine stickleback | FE | SE |
| <i>Catostomus santaanae</i> Santa Ana sucker | FE | SSC |
| <u>U.S. Fish and Wildlife Service (USFWS)</u> FE Federally Endangered <u>California Department of Fish and Wildlife (CDFW)</u> SE State Endangered SSC State Species of Special Concern | | |

1.3.1 UNARMORED THREESPINE STICKLEBACK

In California, the presence of ‘threespine stickleback’ (*Gasterosteus aculeatus*) in most coastal drainages is well documented going back to 1800s (e.g., Girard 1854). At one time naturally occurring sticklebacks were abundant throughout the Los Angeles River Basin (Culver and

Hubbs 1917) but are no longer found, presumably due to increased urbanization in the region (Baskin and Bell 1976; Irwin and Soltz 1982).

Miller and Hubbs (1969) recognized three subspecies in California based mainly on lateral plate polymorphism (different number of bony plates found on subspecies), and subsequent studies confirmed this (Bell 1975, 1976, 1981):

1. Fully armored threespine stickleback (*Gasterosteus aculeatus aculeatus*) is a typically anadromous (marine and fresh water) subspecies with a complete row of lateral plates extending from the anterior portion of the body to the caudal peduncle (fully armored),
2. Partially armored threespine stickleback (*Gasterosteus aculeatus microcephalus*) is a freshwater resident subspecies with the lateral plates restricted to the anterior portion of the body (partially armored), and
3. Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) is a freshwater subspecies that lacks lateral plates (unarmored) and has a limited distribution within Southern California.

Unarmored threespine stickleback is a fully protected species in California. This subspecies was listed by the USFWS as an Endangered species in 1970, and is currently restricted to three areas: the upper Santa Clara River and its tributaries in Los Angeles County; San Antonio Creek on Vandenberg Air Force Base in Santa Barbara County; and the Shay Creek vicinity (Shay Pond, Sugarloaf Pond, Juniper Springs, Motorcycle Pond, Shay Creek, Wiebe Pond, and Baldwin Lake) in San Bernardino County.

The California Natural Diversity Database (CNDDDB) contains several records of unarmored threespine stickleback from the vicinity of the survey areas (CDFW 2012):

- A section of the Santa Clara River at Lang Station Road and upstream in Arrastre Canyon, Acton.
- Agua Dulce Creek, 0.5 mile downstream from State Route (SR) 14 and west of Agua Dulce Road, a Santa Clara River tributary north of Soledad Canyon.
- A section of Santa Clara river behind Greenbrier Mobile Estates (near Reach 64) in Santa Clarita.
- Santa Clara River near McBean Bridge in Valencia.
- Bouquet Canyon Creek at Texas Canyon Road in Santa Clarita.
- Castaic creek, 0.8 mile north of the SR-126 and Interstate (I) 5.

Unarmored threespine stickleback is threatened by habitat degradation from urbanization, channelization, and lower water quality. The introduction of many non-native predators and competitors into the Santa Clara River has also threatened unarmored threespine stickleback populations. Further, since 1990, a number of oil spills indicate the real threat posed by the pipeline and transportation corridors along and across the Santa Clara River.

Unarmored threespine stickleback is a small, primarily annual fish requiring shallow, slow, marginal stream flows with abundant aquatic vegetation for cover. They can be found throughout a given stream of suitable habitat, but tend to mill in areas of slow flow or standing water, such as within eddies behind obstructions or in edgewater where vegetation slows the

stream flow. Under optimal conditions, several hundred unarmored threespine stickleback can exist within approximately ten meters of a stream. While strong storm flows can severely reduce localized populations, as the stream stabilizes in the spring, unarmored threespine stickleback can quickly recover. Moreover, Unarmored threespine stickleback use backwater habitats in the Santa Clara River as refugia during storm events.

Male sticklebacks develop a distinctive nuptial coloration – a red throat, blue sides and blue eyes – during the breeding season and defend territories adjacent to vegetation where they construct a nest. Males attract females to the nest, each of which can spawn between 50 and 300 eggs. After courtship, males defend the eggs and care for them while they develop. The eggs take approximately 6 to 8 days to hatch at 64 to 68 degrees Fahrenheit (°F). The fry remain in the nest for the first couple days, during which time the male continues to guard them (Wootton 1976; Haglund 1981).

Two features of unarmored threespine stickleback habitat appear to be essential for the survival of fry and juveniles; (1) slow flowing, clear water for the proper development of the eggs, with any form of pollution or small amounts of turbidity interfering with normal development and (2) aquatic vegetation along the edge of the shoreline to supply cover and microscopic food organisms for the fry (Ono et al. 1983). While unarmored threespine stickleback rely upon a wide variety of foods, they prefer insects and some snails in their diet.

Critical habitat is not specifically delineated in the Unarmored Threespine Stickleback Recovery Plan (USFWS 1985), but is defined as: (1) the specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the Endangered Species Act of 1973 as amended, on which are found those physical or biological features (a) essential to the conservation of the species and (b) that may require special management considerations or protection and (2) specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species (45 Federal Register 76012-76015). “Conservation” means the use of all methods and procedures that are necessary to bring an Endangered or a Threatened species to the point at which listing under the Act is no longer necessary (USFWS 1998).

Three Essential Habitat zones within the Santa Clara River watershed are described under the Unarmored Threespine Stickleback Revised Recovery Plan (USFWS 1985):

1. **Del Valle Zone.** An area of land and water with the following components (San Bernardino meridian): Santa Clara River within T4N, R16W and R17W, beginning at its confluence with San Martinez Grande Canyon, at a point 0.9 of a mile (1.5 kilometers) southwest of Del Valle settlement, and extending upstream approximately 5.6 miles (8.8 kilometers) to the Interstate Highway 5 Bridge.
2. **San Francisquito Creek Zone.** An area of land and water with the following components (San Bernardino meridian): San Francisquito Canyon watercourse, within T5N, R16W and T6N, R15W, beginning at a point where the Angeles National Forest boundary intersects the San Francisquito Canyon watercourse, approximately 2.5 miles southwest of San Francisquito Powerhouse No. 2, and extending upstream in San Francisquito Canyon approximately 8.4 miles (13.5 kilometers) to San Francisquito Powerhouse No. 1, near its junction with Clearwater Canyon.
3. **Soledad Canyon Zone.** An area of land and water in Los Angeles County, with the following components (San Bernardino meridian): Santa Clara River within T4N, R13W, and R14W, beginning at a point 1.4 miles (2.3 kilometers) upstream in Soledad Canyon from the community of Lang, at the downstream end of the area called River’s End Park, at 34°26’ 7” N, 118°21’ 51” W, thence extending upstream

approximately 8.5 miles (13.7 kilometers) to its confluence with Arrastre Canyon, at a point located about 0.6 of a mile (1 kilometer) southwest of Los Angeles County Rehabilitation Camp, thence upstream in Arrastre Canyon approximately 0.8 of a mile (1.4 kilometers) to 34° 26' 7" N, 118° 11' 51" W.

1.3.2 SANTA ANA SUCKER

Santa Ana sucker is a federally listed Threatened species and a California Species of Special Concern. Its historic range consisted of the Los Angeles, San Gabriel, and Santa Ana River systems; only these populations within its historic range are federally protected.

The CNDDDB contains several records of Santa Ana sucker from the vicinity of the survey area (CDFW 2012):

- East Fork San Gabriel River on east side of Camp Oak Grove.
- East Fork San Gabriel River at Coyote Flat.
- East Fork San Gabriel River about 0.7 miles north of Coyote Flat.
- Cattle Canyon/Creek near junction with Dime Canyon.
- North Fork San Gabriel and West Fork San Gabriel River, approximately .5 miles below mouth of East Fork and Bear Creek in the Angeles Forest.
- Hasley Canyon approximately 2 miles east of Val Verde.
- Tujunga Creek at Foothill Bridge, downstream to junction with Haines Creek.
- Haines Creek and outlets from ponds north of creek.
- Castaic Creek, upstream of Highway 126.
- Fish Canyon, 0.7 miles downstream from confluence of Fern Canyon.
- Santa Clara River, from Lang to Arrastre Canyon.

Santa Ana sucker is found in small, shallow streams with flows that run from slow to swift. It is most abundant where water is clear and unpolluted, although it can withstand seasonal turbidity. It is often associated with bottom materials of boulders, gravel, and cobble where there are growths of filamentous algae, though it is also occasionally found on sand or mud substrates (Thompson et al. 2010). Although Santa Ana sucker has generalized stream habitat requirements, it is intolerant of polluted or highly modified streams (Moyle 2001). It is presumed that the majority of its diet consists of algae, including lithic diatoms, and detritus that it scrapes from rock surfaces, as well as occasional aquatic insect larvae (Haglund, *pers comm.*).

Adult Santa Ana sucker rarely exceed a standard length of eight inches (measured from snout tip to anterior of the caudal fin [tail fin]). It possesses a broad mouth with notches at the junction of the upper and lower lips, and the median notch on the lower lip is less well defined. Its body coloration is silver on the ventral (belly/underside) surface and darker with irregular blotches on the dorsal (back/top) surface. Its scale pattern has longitudinal lateral (along the length of their body) striping. The interradial membrane (membrane between the spines) of the caudal fin is pigmented, and the anal and pelvic fins normally lack pigment (Moyle 2001).

Santa Ana sucker are relatively short-lived; they become reproductively mature by the first year and spawn during the first and second years. Most Santa Ana sucker do not survive past the second year, although a few live three to four years. There is no sexual dimorphism

(appearances between males and females are distinguishable), although reproductive males develop breeding tubercles (small bumps) over most of the body (Moyle 2001).

Santa Ana sucker spawning occurs from April until early July, but peaks in late May and early June. Santa Ana sucker spawn over gravel beds in flowing water where the female deposits the eggs in fine gravel substrate. The eggs hatch within 36 hours at 55.5 degrees Fahrenheit (°F), and the fry (fish hatchlings) congregate in shallow, slow-moving waters along the stream margins in water depths ranging from 1 to 5.5 inches, often over very soft sandy or muddy substrates. Edgewater habitat is probably used by fry because (1) it typically contains fewer predatory fish and (2) shallow water is warmer and probably allows the suckers to grow more quickly (USFWS 2010).

Santa Ana sucker are currently threatened by water diversions; alteration of stream channels; changes in the watershed that result in erosion and debris flows; pollution; and predation by non-native fishes. The primary cause for the extirpation of the Santa Ana sucker from lowland reaches of the Los Angeles, San Gabriel, and Santa Ana Rivers is most likely due to increased urbanization (Swift 1993).

On January 4, 2005, the USFWS published a Final Rule designating 8,305 acres of critical habitat for Santa Ana sucker (USFWS 2010). Two areas were designated in Los Angeles County: one along the San Gabriel River (Unit 2) and the other along Big Tujunga Creek (Unit 3). This designation did not include habitat for the species in Orange, Riverside, or San Bernardino Counties. Following lawsuits, the USFWS proposed a Revised Critical Habitat on December 9, 2009, adding habitat along the Santa Ana River in Orange, Riverside, and San Bernardino Counties to critical habitat for the species (USFWS 2010). This increased the critical habitat designation to 9,331 acres. On December 14, 2010, the USFWS published the Final Rule formalizing the Revised Critical Habitat (USFWS 2010).

It should be noted that, while the survey areas for the Los Angeles River (13 and 14) are within the 2010 revised critical habitat for Santa Ana sucker, the survey area for the San Gabriel River (39) is not within the 2010 revised critical habitat for Santa Ana sucker.

SECTION 2.0 SURVEY METHODS

Focused surveys for unarmored threespine stickleback and Santa Ana sucker were conducted according to USFWS protocols. The biologists conducted the surveys at the most appropriate time of day to ensure maximum opportunity to observe the species.

2.1 UNARMORED THREESPINE STICKLEBACK AND SANTA ANA SUCKER

The initial studies conducted in 2002 included a background literature review and habitat assessment for each of the soft-bottom channel reaches that represented potentially suitable unarmored threespine stickleback habitat. The literature review included the documentation of relevant literature on the presence of the unarmored threespine stickleback within each reach including areas both upstream and downstream. This included review of *Federal Register* listings, protocols, and species data provided by the USFWS and the CNDDDB; consultation with qualified experts familiar with the distribution and natural history of unarmored threespine stickleback; and review of unpublished biological resource letter reports and assessments conducted in the region.

Unarmored Threespine Stickleback: Focused surveys for unarmored threespine stickleback were conducted in 2013 at 27 channel reaches (see Exhibit 1):

- Santa Clara River Reaches 47, 51, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 66, 71, 82, 105, and 109.
- Bouquet Canyon Creek Reaches 67, 69, 70, and 103.
- South Fork Santa Clara River Reaches 79 and 80 at the confluence of the Santa Clara and South Fork Santa Clara Rivers.
- Castaic Creek Reaches 86, 87, 97 and 104.

These channel reaches may provide suitable breeding habitat for unarmored threespine stickleback during the spring and summer season when water is present.

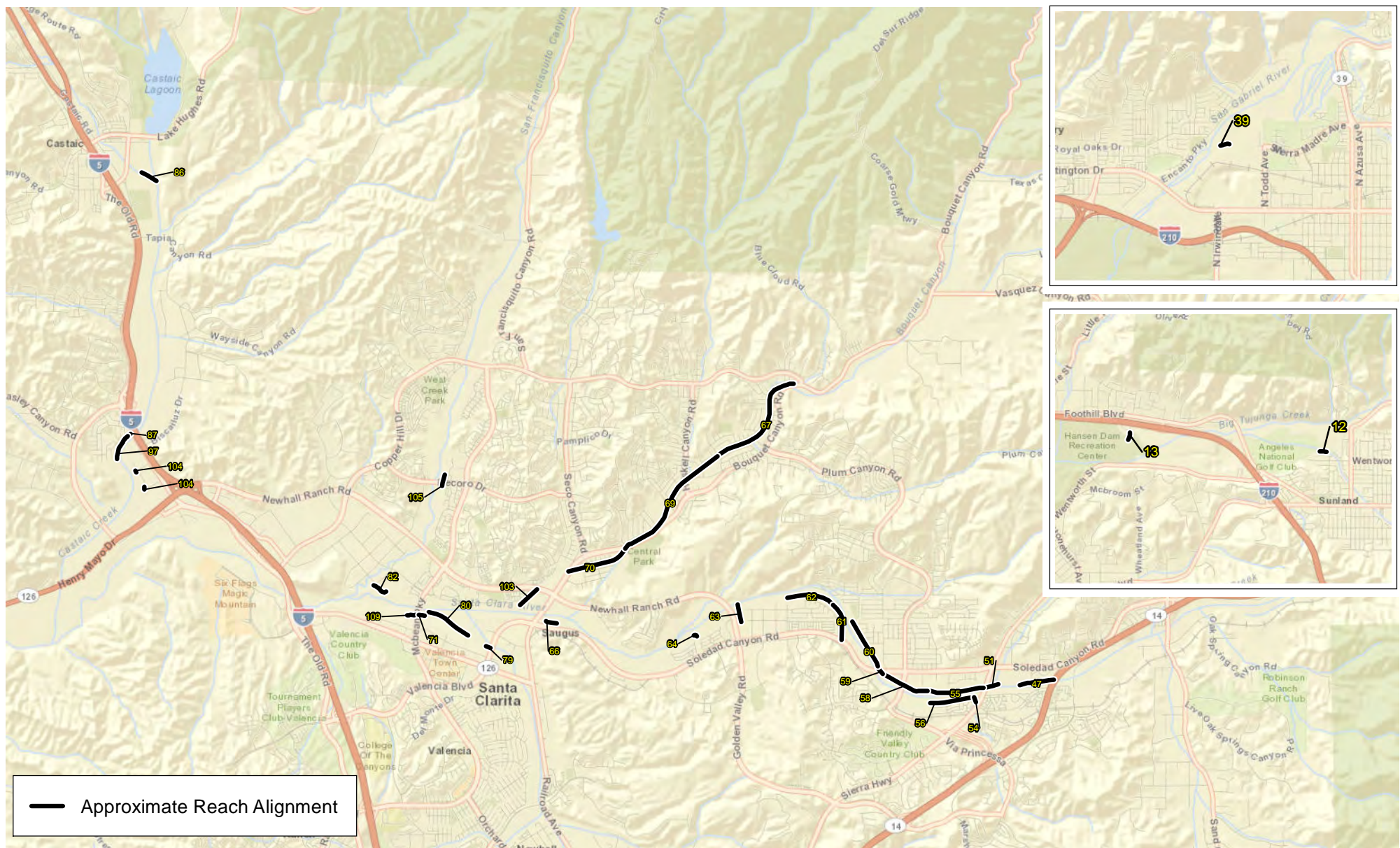
Santa Ana Sucker: Focused surveys for Santa Ana sucker were conducted in 2013 in the San Gabriel River and Los Angeles River drainages at three channel reaches (see Exhibit 1):

- San Gabriel Reach 39 (Beatty Channel Outlet at San Gabriel River).
- Los Angeles River Reaches 12 (Haines Canyon Main Channel Outlet) and 13 (Project No. 5215 Unit 1, within the Tujunga Wash Watershed).

These channel reaches may provide suitable breeding habitat for Santa Ana sucker during the spring and summer season when water is present.

Surveys were conducted by Consulting Fisheries Biologist Dr. Jonathan Baskin (TE 781-377-5), BonTerra Psomas Fisheries Biologists, Dr. Carl Demetropoulos (TE-72044A-0), Samuel Stewart, Jonas Winbolt and Nathan Moffett. Prior to the surveys, Dr. Demetropoulos consulted with Chris Dellith from the USFWS and John O'Brien from the CDFW for approval to conduct the surveys for special status fish species in the survey area. Survey methods included dip netting, seining, and snorkeling depending on the location/stream morphology within the survey area and the species being surveyed

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— Approximate Reach Alignment

Regional Location of All Reaches Surveyed

Pre-Clearing Fish Surveys 2013

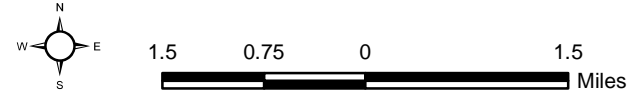


Exhibit 1



Surveys followed the current presence/absence protocol for both unarmored threespine stickleback and Santa Ana sucker and were conducted from August 29 to September 14, 2012. During surveys, all accessible areas of the creeks were surveyed using dip nets and seine nets. While seining, care was taken to avoid algal mats and dense vegetation in the creek to avoid impacts on refugia for potential young fish.

Netting

Dip netting and seining methods were used in shallow water down to depths of approximately three feet for Santa Ana sucker only. Seining was conducted using a 20-foot by 4-foot deep nylon knotless delta weave bagged seine with ¼-inch mesh. Captured fish were immediately transferred into a container of clean water taken from the creek and were visually identified.

SECTION 3.0 SURVEY RESULTS

The following section presents the results of the biological surveys conducted within each channel reach. Channel reaches are grouped by watershed and include Los Angeles River, San Gabriel River, and the Santa Clara River. Table ES-1 above summarizes the results of these 2012 surveys.

3.1 LOS ANGELES RIVER AREA

3.1.1 REACH 12 – HAINES CANYON MAIN CHANNEL OUTLET

Project Location

Reach 12, Haines Canyon Main Channel Outlet, is located within the Tujunga Wash Watershed, approximately one mile northwest of the Mount Gleason Avenue and Foothill Boulevard intersection, in the community of Sunland in the City of Los Angeles (Exhibit 1). The limits of Reach 12 are approximately 791 feet downstream of Wentworth Street to approximately 1,228 feet downstream of Wentworth Street. Reach 12 is 437 feet in total length. The reach is found on the U.S. Geological Survey’s (USGS’) Sunland 7.5-minute quadrangle map (Also, refer to Thomas Guide, Los Angeles County, page 503-F2).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 2
REACH 12 – HAINES CANYON MAIN CHANNEL OUTLET**

| Survey Type | Survey Date | Surveying Biologists |
|---|--------------------|---|
| Focused survey for the Santa Ana sucker | September 5, 2012 | Dr. Carl Demetropoulos Dr. Jonathan Baskin Nathan Moffett |

Santa Ana sucker was not observed in Reach 12 during this survey, but arroyo chub, a California Species of Special Concern, was present. Water was abundant but appeared to be mostly from urban runoff and was not considered to be of high enough quality for Santa Ana sucker.

3.1.2 REACH 13 – PROJECT NO. 5215 UNIT 1

Project Location

Reach 13, Project No. 5215 Unit 1, is located within the Tujunga Wash Watershed, approximately one mile northwest of the Foothill Freeway (I-210) and Wentworth Street intersection in the community of Shadow Hills in the City of Los Angeles (Exhibit 1). The limits of Reach 13 are between approximately 1,030 feet downstream of Foothill Boulevard and approximately 1,535 feet downstream of Foothill Boulevard. Reach 13 is 537 feet in total length. The reach is found on the Sunland USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 503-B2).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 3
REACH 13 – PROJECT NO. 5215 UNIT 1**

| Survey Type | Survey Date | Surveying Biologists |
|---|-----------------|---|
| Focused survey for the Santa Ana sucker | August 30, 2012 | Dr. Carl Demetropoulos Dr. Jonathan Baskin |

Santa Ana sucker was not observed in Reach 13 during this survey. No water was present in the reach.

3.2 SAN GABRIEL RIVER AREA

3.2.1 REACH 39 – BEATTY CHANNEL OUTLET AT SAN GABRIEL RIVER

Project Location

Reach 39, Beatty Channel Outlet at San Gabriel River, is located within the San Gabriel River watershed, approximately 0.8 mile north of the Foothill Boulevard and Irwindale Avenue intersection in the City of Azusa (Exhibit 1). The limits of Reach 39 are approximately 2,323 feet downstream of Todd Avenue to approximately 2,415 feet downstream of Todd Avenue. Reach 39 is 145 feet in total length. The reach is found on the USGS Azusa 7.5-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 568-F4).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologist.

**TABLE 4
REACH 39 – BEATTY CHANNEL OUTLET AT SAN GABRIEL RIVER**

| Survey Type | Survey Date | Surveying Biologist |
|---|--------------------|--|
| Focused survey for the Santa Ana sucker | September 14, 2012 | Dr. Carl Demetropoulos Nathan Moffett |

Santa Ana sucker was not observed in Reach 39 during this survey. While some water was present in the reach, it was shallow (< 9 inches deep) and was not determined to be suitable for Santa Ana sucker.

3.3 SANTA CLARA RIVER AREA

3.3.1 REACH 47 – SANTA CLARA RIVER (PD 1733 UNIT 1)

Project Location

Reach 47, Santa Clara River (PD 1733 unit 1), is located within the Santa Clara River Watershed, approximately 1.5 miles southwest of the SR-14 and Sand Canyon Road intersection in the City of Santa Clarita (Exhibit 1). The limits of Reach 47 are the downstream edge of SR-14 to approximately 1,875 feet downstream of SR-14. Reach 47 is approximately 1,875 feet in total length. The reach is found on the Mint Canyon USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, pages 4552- A3 to 4551-J3).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 5
REACH 47 – SANTA CLARA RIVER (PD 1733 UNIT 1)**

| Survey Type | Survey Date | Surveying Biologists |
|---|-----------------|---|
| Focused survey for the unarmored threespine stickleback | August 29, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |

Unarmored threespine stickleback was not observed in Reach 47 during this survey. No water was present in the reach.

3.3.2 REACH 51 – MINT CANYON MAIN CHANNEL OUTLET (PD 1984)/SANTA CLARA RIVER – MAIN CHANNEL

Project Location

Reach 51, Mint Canyon Main Channel Outlet (PD 1984)/Santa Clara River – Main Channel, is located within the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 51 are approximately 1,044 feet downstream from Soledad Canyon Road to Soledad Canyon Road on the downstream side of Sierra Highway. Reach 51 is approximately 932 feet in total length. The reach is found on the Mint Canyon USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, pages 4551 G3/G4 to 4552 B2/B3).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 6
REACH 51 – MINT CANYON MAIN CHANNEL OUTLET (PD 1984) / SANTA CLARA RIVER – MAIN CHANNEL**

| Survey Type | Survey Date | Surveying Biologists |
|---|-------------------|---|
| Focused survey for the unarmored threespine stickleback | September 5, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |

Unarmored threespine stickleback was not observed in Reach 51 during this survey. Very little water was present in the reach.

3.3.3 REACH 54 – SANTA CLARA RIVER NON-MAIN CHANNEL (PD 832) MAIN CHANNEL OUTLET

Project Location

Reach 54, Santa Clara river non-main channel (PD 832) main channel outlet is located within the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 54 are approximately 821 feet downstream of Sierra Highway to 1,098 feet downstream of Sierra Highway. Reach 54 is approximately 298 feet in total length. The reach is found on the Mint Canyon USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4551 H3 to H4).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologist.

**TABLE 7
REACH 54 – SANTA CLARA RIVER NON-MAIN CHANNEL (PD 832)
MAIN CHANNEL OUTLET**

| Survey Type | Survey Date | Surveying Biologist |
|---|-------------------|---|
| Focused survey for the unarmored threespine stickleback | September 6, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |

Unarmored threespine stickleback was not observed in Reach 54 during this survey. Very little water was present in the reach and it appeared to come from urban runoff.

3.3.4 REACH 55 – SANTA CLARA RIVER CHANNEL (PDS 910, 832, 1758, & 1562 UNIT 2)

Project Location

Reach 55, Santa Clara River Channel (PDs 910, 832, 1758, and 1562 Unit 2), is located within the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 55 are from the downstream edge of Sierra Highway to approximately 3,049 feet downstream of Sierra Highway. Reach 55 is approximately 3,049 feet in total length. The reach is found on the Mint Canyon USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, pages 4551-H3 to G4).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologist. See Exhibits 2a and 2b for photo documentation of select reaches.

**TABLE 8
REACH 55 – SANTA CLARA RIVER CHANNEL
(PDS 910, 832, 1758, AND 1562 UNIT 2)**

| Survey Type | Survey Date | Surveying Biologist |
|---|-------------------|---|
| Focused survey for the unarmored threespine stickleback | September 6, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |



August 14, 2013. View of channel upstream of Santa Clara River Non-Main Channel - Reach 54.



August 30, 2013. View of water downstream of Urbandale Ave in Bouquet Canyon Middle Channel - Reach 69.

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Site Photographs

Pre-Clearing Fish Surveys 2013

Exhibit 2a

Bonterra
PSOMAS

(Rev: 2-24-2014 MMD) R:\Projects\COLADPW\J235\Graphics\ex_SP1.pdf



August 26, 2013. View of Beatty Channel Outlet - Reach 39.



September 6, 2013. View of Haines Canyon Main Channel Outlet - Reach 12.

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Site Photographs

Pre-Clearing Fish Surveys 2013

Exhibit 2b

Bonterra
PSOMAS

(Rev: 2-24-2014 MMD) R:\Projects\CoLADPW\J235\Graphics\ex_SP2.pdf

Unarmored threespine stickleback was not observed in Reach 55 during this survey. No water was present in this reach.

3.3.5 REACH 56 – SANTA CLARA RIVER CHANNEL (PD 1562 UNIT 2)

Project Location

Reach 56, Santa Clara River Main Channel (PD 1562 unit 2), is located within the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 56 are approximately 3,049 feet downstream of Sierra Highway to approximately 3,501 feet downstream of Sierra Highway. Reach 56 is 452 feet in total length. The reach is found on the Mint Canyon USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, pages 4551- G3).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 9
REACH 56 – SANTA CLARA RIVER CHANNEL (PD 1562 UNIT 2)**

| Survey Type | Survey Date | Surveying Biologist |
|---|-------------------|---|
| Focused survey for the unarmored threespine stickleback | September 6, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |

Unarmored threespine stickleback was not observed in Reach 56 during this survey. No water was present in this reach.

3.3.6 REACH 58 – SANTA CLARA MAIN RIVER CHANNEL (PD 374)

Project Location

Reach 58, Santa Clara River Main Channel (PD 374), is located within the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 58 are from a point approximately 2,114 feet upstream of the Old Soledad Canyon Road Bridge to the upstream edge of Soledad Canyon Road Bridge. Reach 58 is 2,064 feet in total length. The reach is found on the Mint Canyon USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, pages 4551-G3 to F3).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologist.

**TABLE 10
REACH 58 – SANTA CLARA RIVER CHANNEL (PD 374)**

| Survey Type | Survey Date | Surveying Biologist |
|---|-------------------|---|
| Focused survey for the unarmored threespine stickleback | September 6, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |

Unarmored threespine stickleback was not observed in Reach 58 during this survey. No water was present in this reach.

3.3.7 REACH 59 – SANTA CLARA RIVER MAIN CHANNEL (PD 374)

Project Location

Reach 59, Santa Clara River Main Channel (PD 374), is located within the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 59 are the upstream side of the Old Soledad Canyon Road Bridge to the downstream side of the new Soledad Canyon Road Bridge. Reach 59 is 640 feet in total length. The reach is found on the Mint Canyon USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4551-F3).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 11
REACH 59 – SANTA CLARA RIVER CHANNEL (PD 374)**

| Survey Type | Survey Date | Surveying Biologist |
|---|-------------------|---|
| Focused survey for the unarmored threespine stickleback | September 6, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |

Unarmored threespine stickleback was not observed in Reach 59 during this survey. No water was present in this reach.

3.3.8 REACH 60 – SANTA CLARA RIVER MAIN CHANNEL (PD 1339 AND 374)

Project Location

Reach 60, Santa Clara River Main Channel (PD 1339 & 374), is located within the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 60 are the downstream side of the new Soledad Canyon Road Bridge to its confluence with PD 313, which is downstream of Newhouse Street. Reach 60 is 3,258 feet in total length. The reach is found on the Mint Canyon USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4551-F3 to E2).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologist.

**TABLE 12
REACH 60 – SANTA CLARA RIVER CHANNEL (PD 1339 AND 374)**

| Survey Type | Survey Date | Surveying Biologist |
|---|-------------------|---|
| Focused survey for the unarmored threespine stickleback | September 6, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |

Unarmored threespine stickleback was not observed in Reach 60 during this survey. No water was present in this reach.

3.3.9 REACH 61 – SANTA CLARA RIVER (PD 659)

Project Location

Reach 61, Santa Clara River (PD 659), is located within the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 61 are the downstream side of the new Soledad Canyon Road Bridge to a point approximately 1,634 feet further downstream. Reach 61 is 1,634 feet in total length. The reach is found on the Mint Canyon USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4551-E2).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologist.

**TABLE 13
REACH 61 – SANTA CLARA RIVER (PD 659)**

| Survey Type | Survey Date | Surveying Biologist |
|---|-------------------|---|
| Focused survey for the unarmored threespine stickleback | September 5, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |

Unarmored threespine stickleback was not observed in Reach 61 during this survey. No water was present in this reach.

3.3.10 REACH 62 – SANTA CLARA RIVER (PD 754)

Project Location

Reach 62, Santa Clara River (PD 754), is located within the Santa Clara Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 62 are approximately 1,634 feet downstream of the new Soledad Canyon Road Bridge to Honby Avenue. Reach 62 is 3,032 feet in total length. The reach is found on the Newhall USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, pages 4551-E2 – D2).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 14
REACH 62 – SANTA CLARA RIVER (PD 754)**

| Survey Type | Survey Date | Surveying Biologists |
|---|-----------------|---|
| Focused survey for the unarmored threespine stickleback | August 29, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |

Unarmored threespine stickleback was not observed in Reach 62 during this survey. While some water was present in this reach, it was outside the zone of disturbance.

3.3.11 REACH 63 – OAK AVE ROAD DRAINAGE (CDR 523.081)**Project Location**

Reach 63, Oak Avenue Road Drainage (CDR 523.081), is located within the Santa Clara Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 63 are approximately 1,400 feet north of Soledad Canyon Road at the Southern California Edison (SCE) lines to 2,300 feet north of Soledad Canyon Road at the SCE lines. Reach 63 is 900 feet in total length. The reach is found on the Newhall USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4551 C2).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 15
REACH 63 – OAK AVE ROAD DRAINAGE (CDR 523.081)**

| Survey Type | Survey Date | Surveying Biologists |
|---|-----------------|---|
| Focused survey for the unarmored threespine stickleback | August 29, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |

Unarmored threespine stickleback was not observed in Reach 63 during this survey. While some water was present in this reach (< 8 inches) it appeared to come from urban runoff and would not be suitable for this species.

3.3.12 REACH 64 – SOLEDAD CANYON ROAD DRAINAGE (CDR 523.071D OUTLET)**Project Location**

Reach 64, Soledad Canyon Road Drainage (CDR 523.071 D Outlet), is located within the Santa Clara Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 64 are the east side of the Los Angeles Aqueduct north of Soledad Canyon Road, approximately 980 feet to 1,250 feet northwest of Soledad Canyon Road and the Los Angeles Aqueduct. Reach 64 is 577 feet in total length. The reach is found on the Newhall USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, pages 4551 B2 to B3).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 16
REACH 64 – SOLEDAD CANYON ROAD DRAINAGE
(CDR 523.071D OUTLET)**

| Survey Type | Survey Date | Surveying Biologists |
|---|-----------------|---|
| Focused survey for the unarmored threespine stickleback | August 29, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |

Unarmored threespine stickleback was not observed in Reach 64 during this survey. While some water was present in this reach (< 5 inches) and water quality appeared to be good, no fish were found.

3.3.13 Reach 66 – Santa Clara River (PD 1538)

Project Location

Reach 66, Santa Clara River (PD 1358), is located within the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 66 are approximately 706 feet upstream of Bouquet Canyon Road to approximately 1,417 feet upstream of Bouquet Canyon Road. Reach 66 is 711 feet in total length. The reach is found on the Newhall USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4550-H2).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 17
REACH 66 – SANTA CLARA RIVER (PD 1538)**

| Survey Type | Survey Date | Surveying Biologists |
|---|-----------------|---|
| Focused survey for the unarmored threespine stickleback | August 29, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |

Unarmored threespine stickleback was not observed in Reach 66 during this survey. While some water was present in this reach (<6 inches), no fish were found.

3.3.14 REACH 67 – BOUQUET CANYON CREEK UPPER (PDS 1201, 802, 700B, AND 625B)

Project Location

Reach 67, Bouquet Canyon Upper (PDs 1201, 802, 700B, and 625), is located within the Santa Clara River Watershed in the City of Santa Clarita and the Bouquet Canyon community in unincorporated Los Angeles County (Exhibit 1). The limits of Reach 67 are approximately 63 feet downstream of Hob Avenue to approximately 153 feet upstream of Urbandale Avenue. Reach 67 is 6,176 feet in total length. The reach is found on the Newhall USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, pages 4461-D1 to C6).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 18
REACH 67 – BOUQUET CANYON CREEK UPPER
(PDS 1201, 802, 700B, & 625B)**

| Survey Type | Survey Date | Surveying Biologists |
|---|-----------------|---|
| Focused survey for the unarmored threespine stickleback | August 30, 2012 | Dr. Carl Demetropoulos Dr. Jonathan Baskin Samuel Stewart |

Unarmored threespine stickleback was not observed in Reach 67 during this survey. While some water was present in this reach (< 12 inches) and water quality appeared to be good, no fish were found. However, unarmored threespine stickleback were previously found in this reach in 2005, 2006, 2007 and 2008 (BonTerra 2005, 2006, 2007, 2008).

3.3.15 REACH 69 – BOUQUET CANYON CREEK MIDDLE (PDS 772, 773, 1365, 1065, AND 451)

Project Location

Reach 69, Bouquet Canyon Middle (PDs 722, 773, 1365, 1065, and 45), is located within the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 69 are approximately 122 feet downstream of Urbandale Avenue to approximately 54 feet downstream of the middle crossing of Bouquet Canyon Road. Reach 69 is 6,812 feet in total length. The reach is found on the Newhall USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, pages 4461-C6 to A7).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 19
REACH 69 – BOUQUET CANYON CREEK MIDDLE
(PDS 772, 773, 1365, 1065, AND 451)**

| Survey Type | Survey Date | Surveying Biologists |
|---|-----------------|---|
| Focused survey for the unarmored threespine stickleback | August 30, 2012 | Dr. Carl Demetropoulos Dr. Jonathan Baskin Samuel Stewart |

Unarmored threespine stickleback was not observed in Reach 69 during this survey. The cement constructed riprap plunge pool where unarmored threespine stickleback were observed in 2012 was mostly filled in with sediment and water quality conditions were considered too poor for the species. Unarmored threespine stickleback were previously found in this reach in 2005, 2006, 2007 and 2008 (BonTerra 2005, 2006, 2007, 2008).

3.3.16 REACH 70 – BOUQUET CANYON CREEK LOWER (PDS 544 AND 345)

Project Location

Reach 70, Bouquet Canyon Lower (PDs 544 and 345) is located within the Santa Clara River Watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 70 are 2,866 feet upstream of the lower crossing with Bouquet Canyon Road to the downstream side of the lower crossing with Bouquet Canyon Road. Reach 70 is 2,954 feet in total length. The reach is found on the Newhall USGS 7.5 x 15-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, pages 4550-J1 to H1).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 20
REACH 70 – BOUQUET CANYON CREEK LOWER (PDS 544 AND 345)**

| Survey Type | Survey Date | Surveying Biologists |
|---|--------------------|---|
| Focused survey for the unarmored threespine stickleback | August 30, 2012 | Dr. Carl Demetropoulos Dr. Jonathan Baskin Samuel Stewart |

Unarmored threespine stickleback was not observed in Reach 70 during this survey. While some water was present in this reach (< 10 inches), and water quality appeared to be marginal to good, no fish were found.

3.3.17 REACH 71 – SANTA CLARA RIVER MAIN CHANNEL (PD 1946)**Project Location**

Reach 71, Santa Clara River Main Channel (PD 1946), is located within the Santa Clara River-South Fork watershed in the City of Santa Clarita (Exhibit 1). The limits of Reach 71 are approximately 276 feet upstream of McBean Parkway (at the confluence with the South Fork of the Santa Clara River) to the downstream edge of McBean Parkway. Reach 71 is 346 feet in total length. The reach is found on the USGS Newhall 7.5-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4550-E2).

Survey Results

The table below summarizes the type of survey completed, the survey date, and surveying biologist.

**TABLE 21
REACH 71 – SANTA CLARA RIVER MAIN CHANNEL (PD 1946)**

| Survey Type | Survey Date | Surveying Biologist |
|---|--------------------|--|
| Focused survey for the unarmored threespine stickleback | August 29, 2012 | Dr. Carl Demetropoulos Samuel Stewart |

Unarmored threespine stickleback was not observed in Reach 71 during this survey. No water was present in this reach.

3.3.18 REACH 79 – SOUTH FORK – SANTA CLARA RIVER (VALENCIA BOULEVARD BRIDGE STABILIZER)**Project Location**

Reach 79, South Fork – Santa Clara River (Valencia Boulevard Bridge Stabilizer), is located within the Santa Clara River-South Fork Watershed (Exhibit 1). The limits of Reach 79 are the downstream edge of Valencia Boulevard to approximately 167 feet downstream of Valencia Boulevard. Reach 79 is 167 feet in total length. The reach is found on the USGS Newhall 7.5-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4550-G3).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 22
REACH 79 – SOUTH FORK – SANTA CLARA RIVER
(VALENCIA BOULEVARD BRIDGE STABILIZER)**

| Survey Type | Survey Date | Surveying Biologists |
|---|-----------------|--|
| Focused survey for the unarmored threespine stickleback | August 29, 2012 | Dr. Carl Demetropoulos Samuel Stewart |

Unarmored threespine stickleback was not observed in Reach 79 during this survey. While some water was present in this reach (< 8 inches), it appeared to come from residential and/or commercial sources and be of marginal quality.

3.3.19 REACH 80 – SOUTH FORK – SANTA CLARA RIVER (PDS 1947 AND 1946)

Project Location

Reach 80, South Fork-Santa Clara River (PDs 1947 and 1946), is located in the Santa Clara River-South Fork Watershed (Exhibit 1). The limits of Reach 80 are approximately 3,080 feet upstream of McBean Parkway to approximately 276 feet upstream of McBean Parkway and the confluence with Santa Clara River. Reach 80 is 2,804 feet in total length. The reach is found on the USGS Newhall 7.5-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4550-F2).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologist.

**TABLE 23
REACH 80 – SOUTH FORK – SANTA CLARA RIVER (PDS 1947 AND 1946)**

| Survey Type | Survey Date | Surveying Biologist |
|---|-----------------|--|
| Focused survey for the unarmored threespine stickleback | August 29, 2012 | Dr. Carl Demetropoulos Samuel Stewart |

Unarmored threespine stickleback was not observed in Reach 80 during this survey. No water was present in this reach.

3.3.20 REACH 82 – SANTA CLARA RIVER MAIN CHANNEL (PD 2278)

Project Location

Reach 82, Santa Clara River Main Channel (PD 2278), is located in the Santa Clara River Watershed, approximately 0.75 mile east of the I-5 and Magic Mountain Parkway intersection in the City of Santa Clarita (Exhibit 1). The upstream limits of Reach 82 are approximately 740 feet southeast of the intersection of Hopkins Avenue and Rockefeller Avenue to just south of the intersection of Hopkins Avenue and Rockefeller Avenue. Reach 82 is 865 feet in total length.

The reach is found on the USGS Newhall 7.5-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4550-D1).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologist.

**TABLE 24
REACH 82 – SANTA CLARA RIVER MAIN CHANNEL (PD 2278)**

| Survey Type | Survey Date | Surveying Biologist |
|---|-------------------|--|
| Focused survey for the unarmored threespine stickleback | September 6, 2012 | Dr. Carl Demetropoulos Samuel Stewart |

Unarmored threespine stickleback was not observed in Reach 82 during this survey. While some water was present in this reach (< 10 inches), it appeared to come from residential and/or commercial sources and be of marginal quality.

3.3.21 REACH 86 – VIOLIN CANYON MAIN CHANNEL OUTLET

Project Location

Reach 86, Violin Canyon Main Channel Outlet, is located in the Castaic Creek Watershed in the community of Castaic in unincorporated Los Angeles County, approximately 0.5 mile southeast of the I-5 and Lake Hughes Road intersection (Exhibit 1). The limits of Reach 86 are approximately 1,021 feet downstream of Ridge Route Road to the confluence with Castaic Creek. Reach 86 is 946 feet in total length. The reach is found on the USGS Newhall 7.5-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4369-J7).

Survey Results

The table below summarizes the type of survey completed, the survey dates, and the surveying biologist.

**TABLE 25
REACH 86 – VIOLIN CANYON MAIN CHANNEL OUTLET**

| Survey Type | Survey Date | Surveying Biologist |
|---|-----------------|---|
| Focused survey for the unarmored threespine stickleback | August 29, 2012 | Dr. Carl Demetropoulos Jonas Winbolt |

Unarmored threespine stickleback was not observed in Reach 86 during this survey. While some water was present in this reach (< 4 inches), it appeared to come from residential and/or commercial sources and to be of marginal quality.

3.3.22 REACH 87 – CASTAIC-OLD ROAD DRAINAGE (CDR 525.021D) OUTLET

Project Location

Reach 87, Castaic – Old Road Drainage (CDR 525.021D) Outlet, is located in the Castaic Creek Watershed, approximately one mile northwest of the I-5 and Henry Mayo Drive (SR-126) in the Castaic Junction community of unincorporated Los Angeles County (Exhibit 1). The limits

of Reach 87 are approximately 610 feet downstream of the intersection of Hasley Canyon Road and The Old Road to the confluence with Castaic Creek. Reach 87 is 240 feet in total length. The reach is found on the USGS Newhall 7.5-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4459-H5).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 26
REACH 87 – CASTAIC-OLD ROAD DRAINAGE (CDR 525.021D) OUTLET**

| Survey Type | Survey Date | Surveying Biologists |
|---|-----------------|---|
| Focused survey for the unarmored threespine stickleback | August 29, 2012 | Dr. Carl Demetropoulos Dr. Jonathan Baskin Samuel Stewart |

Unarmored threespine stickleback was not observed in Reach 87 during this survey. While some water was present in this reach (< 2 inches), it appeared to come from residential and/or commercial sources and be of marginal quality.

3.3.23 REACH 97 – CASTAIC CREEK (PD 1982)

Project Location

Reach 97, Castaic Creek (PD 1982), is located within the Castaic Creek Watershed in the Castaic Junction community of unincorporated Los Angeles County (Exhibit 1). The limits of Reach 97 are approximately 300 feet downstream to 2,300 feet downstream of The Old Road. Reach 97 is 2,000 feet in total length. The reach is found on the USGS Newhall 7.5-minute quadrangle maps (Refer to Thomas Guide, Los Angeles County, page 4459-H5 to 4459-H6).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 27
REACH 97 – CASTAIC CREEK (PD 1982)**

| Survey Type | Survey Date | Surveying Biologists |
|---|-----------------|---|
| Focused survey for the unarmored threespine stickleback | August 29, 2012 | Dr. Carl Demetropoulos Dr. Jonathan Baskin Samuel Stewart |

Unarmored threespine stickleback was not observed in Reach 97 during this survey. While water was present in this reach (< 26 inches), it appeared to come mainly from residential and/or commercial sources and be of poor quality.

3.3.24 REACH 103 – BOUQUET CANYON CHANNEL (PD 2225)

Project Location

Reach 103, Bouquet Canyon Channel (PD 2225), is located within the Santa Clara River Watershed (Exhibit 1). The limits of Reach 103 are approximately 173 feet downstream of the centerline of Newhall Ranch Road (beginning of Grouted Stone Toe) to the Metropolitan Water District Fee Right-of-Way on the right bank and the embankment turn at the Santa Clara River on the left bank. Reach 103 is 1,824 feet in total length. The reach is found on the USGS Newhall 7.5-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4550-H1, 4550-H2, and 4550-G2).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologists.

**TABLE 28
REACH 103 – BOUQUET CANYON CHANNEL (PD 2225)**

| Survey Type | Survey Date | Surveying Biologists |
|---|-------------------|--|
| Focused survey for the unarmored threespine stickleback | September 5, 2012 | Dr. Carl Demetropoulos Samuel Stewart |

Unarmored threespine stickleback was not observed in Reach 103 during this survey. Very little water was present in the reach. However, unarmored threespine stickleback were previously found in this reach in 2005, 2006, 2007 and 2008 (BonTerra 2005, 2006, 2007, 2008).

3.3.25 REACH 104 – CASTAIC CREEK (PD 2441 – UNITS 1 AND 2)

Project Location

Reach 104, Castaic Creek (PD 2441 – Unit 2), is located in the Castaic Creek Watershed. The limits of Reach 104 are approximately 669 feet upstream of the Muirfield Lane Centerline to 478 feet downstream of the Turnberry Lane Centerline (Exhibit 1). Reach 104 is 2,186 feet in total length. The reach is found on the USGS Newhall 7.5-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4459- H6 to 4459-H7).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologist.

**TABLE 29
REACH 104 – CASTAIC CREEK (PD 2441 – UNIT 2)**

| Survey Type | Survey Date | Surveying Biologist |
|---|-------------------|--|
| Focused survey for the unarmored threespine stickleback | September 5, 2012 | Dr. Carl Demetropoulos Samuel Stewart |

Unarmored threespine stickleback was not observed in Reach 104 during this survey. Very little water was present in the reach.

3.3.26 REACH 105 – SAN FRANCISQUITO CHANNEL (PD 2456)**Project Location**

Reach 105, San Francisquito Channel (PD 2456), is located in the Santa Clara River Watershed in unincorporated Los Angeles County (Exhibit 1). The limits of Reach 105 are approximately 417 feet upstream of the Decoro Drive Centerline to 416 feet downstream of the Decoro Drive Centerline. Reach 105 is 833 feet in total length. The reach is found on the USGS Newhall 7.5-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4460-F6).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologist.

**TABLE 30
REACH 105 – SAN FRANCISQUITO CHANNEL (PD 2456)**

| Survey Type | Survey Date | Surveying Biologist |
|---|-------------------|--|
| Focused survey for the unarmored threespine stickleback | September 5, 2012 | Dr. Carl Demetropoulos Samuel Stewart |

Unarmored threespine stickleback was not observed in Reach 105 during this survey. No water was present in the reach.

3.3.27 REACH 109 – SANTA CLARA RIVER – SOUTH BANK WEST OF MCBEAN PARKWAY (MTD 1510)**Project Location**

Reach 109, Santa Clara River – South Bank West of McBean Parkway (MTD 1510), is an outlet located on the south bank (concrete levee), just west or downstream of McBean Parkway (Exhibit 1). The limits of Reach 109 are from the outlet, approximately 300 feet downstream of the McBean Parkway centerline, downstream 371 feet. The reach is found on the USGS Newhall 7.5-minute quadrangle map (Refer to Thomas Guide, Los Angeles County, page 4550-E2).

Survey Results

The table below summarizes the type of survey completed, the survey date, and the surveying biologist.

**TABLE 31
REACH 109 – SANTA CLARA RIVER – SOUTH BANK WEST OF MCBEAN PARKWAY (MTD 1510)**

| Survey Type | Survey Date | Surveying Biologist |
|---|-------------------|--|
| Focused survey for the unarmored threespine stickleback | September 5, 2012 | Dr. Carl Demetropoulos Samuel Stewart |

Unarmored threespine stickleback was not observed in Reach 109 during this survey. While water was present in this reach (< 21 inches), it appeared to come mainly from residential and commercial sources and be of poor quality. However, unarmored threespine stickleback were previously found in this reach in 2009, 2010, and 2011 (BonTerra 2009, 2010, 2011).

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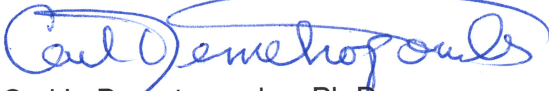
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APPENDIX A
SURVEYOR CERTIFICATE STATEMENT

SURVEYOR CERTIFICATE STATEMENT

I certify that the information in this survey report and enclosed exhibits fully and accurately represent our work.



Carl L. Demetropoulos, Ph.D.
Senior Fisheries Biologist
(TE-72044A-0)

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**RESULTS OF SOUTHWESTERN WILLOW FLYCATCHER
AND LEAST BELL'S VIREO REPORT**



2013 FOCUSED SURVEY RESULTS

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT SOFT-BOTTOM CHANNELS MAINTENANCE CLEARING

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EXECUTIVE SUMMARY

Focused surveys for Threatened and Endangered (T/E) species are conducted on a regular basis at selected soft-bottom channel reaches maintained by the Los Angeles County Flood Control District (LACFCD). Annual biological monitoring and periodic habitat assessments of all LACFCD soft-bottom channel reaches are completed to update and revise, when necessary, the particular channel reaches and species for which surveys are recommended. The following summary includes 3 Endangered animal species for which focused surveys were conducted at 22 channel reaches in 2013 and includes a maintenance overview with respect to these species. The 2013 survey results are also summarized below in Table ES-1.

AMPHIBIANS

ARROYO TOAD

Focused surveys for the arroyo toad (*Anaxyrus californicus*) were conducted at the following 11 channel reaches in 2013: Castaic Creek Reaches 86, 87, and 97 and Reach 104 in the Castaic Creek Watershed; San Francisquito Canyon Reach 105; the northern part of the South Fork Santa Clara River Reach 75 (i.e., from Magic Mountain Parkway upstream to the Via Princessa Bridge) and the South Fork Santa Clara River Reach 79; Reach 80 at the confluence of the Santa Clara and South Fork Santa Clara Rivers; and Santa Clara River Reaches 71, 82, and 109. These channel reaches may provide suitable breeding habitat during the spring season for the arroyo toad when water is present. Portions of these channel reaches also provide potentially suitable aestivating and foraging habitat. These surveys followed the U.S. Fish and Wildlife Service (USFWS) protocol for this species. Since the protocol does not require handling of the species, a Section 10(a)(1)(A) permit (Scientific Permit) for “take” under the Endangered Species Act is not necessary for performance of these surveys. Although not detected during the 2013 surveys, previous focused surveys have detected the arroyo toad at Reaches 71 and 82 (BonTerra Consulting 2003) and these two channel reaches are considered to be occupied (USFWS 2004). No arroyo toads were observed during the 2013 focused surveys.

The arroyo toad is not typically active during the time period when the soft-bottom channel maintenance occurs (September to November), with the exception of a limited number of juveniles, which stay near the active channel, and increased activity of some adults after storms (Ramirez 2003). Therefore, even if arroyo toads were present, the maintenance activity would not be expected to impact the arroyo toad’s foraging or breeding activities. The arroyo toad would not be expected to aestivate in the maintenance area because the area that is maintained has compacted soil; therefore, the maintenance activities would not be expected to affect aestivation of this species.

BIRDS

LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER

Focused surveys for the least Bell’s vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) were conducted in 2013 at a total of 21 channel reaches where they have potential to occur: 4 channel reaches in the Los Angeles River/San Pedro Bay/Santa Monica Bay areas (Reaches 12, 14, 27, and 28); 4 channel reaches in the San Gabriel River (Reaches 39, 40b, 43a, and 43b); and 13 channel reaches in the Santa Clara River and Castaic Creek Drainages (Reaches 71, 75, 79, 80, 82, 87, 97, 103, 104, 105, 106, 109, and 110). Surveys followed the USFWS protocol for both species. The southwestern willow flycatcher was not present during the 2013 focused surveys and there were also negative

survey results in 2011, 2009, 2007, 2005, 2003, and 2002. The least Bell's vireo was present during the 2013 surveys with a total of 13 territories at 5 channel reaches. Table ES-1 below presents a summary of the 2013 survey results for southwestern willow flycatcher and least Bell's vireo.

**TABLE ES-1
SUMMARY OF 2013 RESULTS OF FOCUSED BIRD SURVEYS FOR THE
LACFCD SOFT-BOTTOM CHANNELS**

| Reach Number | Reach Name | Focused Surveys for Arroyo Toad | Focused Surveys for Least Bell's Vireo | Focused Surveys for Southwestern Willow Flycatcher |
|--|--|---------------------------------|---|--|
| Los Angeles River Watershed/San Pedro Bay | | | | |
| 12 | Haines Canyon Main Channel Outlet | N/A | Negative | Negative |
| 14 | May Channel (Main Channel Outlet into Pacoima Canyon) | N/A | 2 territories (1 pair/1 solitary male) | Negative |
| 27 | Wilmington Drain | N/A | 1 territory (solitary male) | Negative |
| Malibu Creek Watershed/Santa Monica Bay | | | | |
| 28 | Triunfo Creek (PD T2200) | N/A | Negative | Negative |
| San Gabriel River Watershed | | | | |
| 39 | Beatty Channel Outlet at San Gabriel River (25+99.00+50') | N/A | 2 territories (1 pair/1 solitary male) | Negative |
| 40b | San Gabriel River – Santa Monica (I-10) Freeway to Thienes Ave | N/A | 5 territories (4 pairs) | 1 Migrant |
| 43a | San Gabriel River – Upper | N/A | 3 territories (2 pairs/1 solitary male) | Negative |
| 43b | San Gabriel River – Lower | N/A | Negative | Negative |
| Santa Clara River Watershed | | | | |
| 71 | Santa Clara River Main Channel (PD 1946) | Negative | Negative | Negative |
| 75 | South Fork-Santa Clara River (PDs 725, 916, 1041, 1300) | Negative | Negative | Negative |
| 79 | South Fork – Santa Clara River (Valencia Blvd Bridge Stabilizer) | Negative | Negative | Negative |
| 80 | South Fork – Santa Clara River (PDs 1947 and 1946) | Negative | Migrant male | Negative |
| 82 | Santa Clara River Main Channel (PD 2278) | Negative | Negative | 1 Migrant |
| 86 | Violin Canyon Main Channel Outlet | Negative | N/A | N/A |
| 87 | Castaic – The Old Road Drain (CDR 525.021D) Outlet | Negative | Negative | Negative |
| 97 | Castaic Creek – The Old Road (PD 1982) | Negative | Negative | Negative |
| 103 | Bouquet Canyon Channel (PD 2225) | N/A | Negative | Negative |
| 104 | Castaic Creek (PD 2441 Units 1 and 2) | Negative | Negative | Negative |

**TABLE ES-1
SUMMARY OF 2013 RESULTS OF FOCUSED BIRD SURVEYS FOR THE
LACFCD SOFT-BOTTOM CHANNELS**

| Reach Number | Reach Name | Focused Surveys for Arroyo Toad | Focused Surveys for Least Bell's Vireo | Focused Surveys for Southwestern Willow Flycatcher |
|--|---|---------------------------------|--|--|
| 105 | San Francisquito Canyon Channel (PD 2456) | Negative | Negative | 3 Migrants |
| 106 | Castaic Drain Outlet (RMD Channel) | N/A | Negative | Negative |
| 109 | Santa Clara River – South Bank West of McBean Pkwy (MTD 1510) | Negative | Negative | 1 Migrant |
| 110 | Hasley Canyon Channel (PD 2262) | N/A | Negative | Negative |
| N/A = Not applicable; no potential habitat for the species; therefore no survey conducted. | | | | |

The 2013 survey results for least Bell's vireo are shown below in Table ES-2 with the previous survey results for this species under the LACFCD soft-bottom channel maintenance program. Although migrant or transitory least Bell's vireos have been detected at other channel reaches in these focused surveys, only these six channel reaches have supported least Bell's vireo territories.

Both the least Bell's vireo and southwestern willow flycatcher are migratory species that are only present in Southern California from about March through early September. As required by the permits (see U.S. Army Corps of Engineers Nationwide Permit 31 dated September 30, 2010, with Informal USFWS Section 7 Consultation), in order to avoid and/or minimize potential impacts on these species, all channel maintenance clearing work occurs outside this time period (March 15–September 15); additionally, seasonally occupied habitat is identified and protected by flagging and clearing activities are monitored by a qualified biologist.

**TABLE ES-2
SUMMARY OF LEAST BELL'S VIREO SURVEY RESULTS SINCE 2002 FOR THE
SOFT-BOTTOM CHANNEL MAINTENANCE PROGRAM**

| Reach Number | Reach Name | 2013 | 2011 | 2009 | 2007 | 2005 | 2003 | 2002 |
|--|---|---|-----------------------------|--|-----------------------------|----------------------|----------|-----------|
| Los Angeles River Watershed/San Pedro Bay | | | | | | | | |
| 14 | May Channel (Main Channel Outlet into Pacoima Canyon) | 2 territories (1 pair/ 1 solitary male) | 3 territories (3 pairs) | 2 territories (2 solitary males) | Negative | 1 territory (1 pair) | Negative | Negative |
| 27 | Wilmington Drain | 1 territory (solitary male) | 1 territory (solitary male) | Negative | 1 territory (solitary male) | Negative | Negative | Negative |
| San Gabriel River Watershed | | | | | | | | |
| 39 | Beatty Channel Outlet at San Gabriel River (25+99.00+50') | 2 territories (2 pairs) | 3 territories (3 pairs) | 4 territories (3 pairs/ 1 solitary male) | 2 territories (2 pairs) | 1 territory (1 pair) | Negative | No Survey |

**TABLE ES-2
SUMMARY OF LEAST BELL'S VIREO SURVEY RESULTS SINCE 2002 FOR THE
SOFT-BOTTOM CHANNEL MAINTENANCE PROGRAM**

| Reach Number | Reach Name | 2013 | 2011 | 2009 | 2007 | 2005 | 2003 | 2002 |
|--------------------------|--|--|---|--|----------------------------------|----------------------|-----------------------------|---|
| 40b | San Gabriel River-Santa Monica (I-10) Freeway to Thienes Ave | 5 territories (4 pairs/ 1 solitary male) | 4 territories (4 pairs) | 2 territories (1 pair/ 1 solitary male) | 3 territories (3 solitary males) | Negative | Negative | 2 territories (1 pair/ 1 solitary male) |
| 43a | San Gabriel River-Upper | 3 territories (2 pairs/ 1 solitary male) | 4 territories (2 pairs/ 2 solitary males) | 4 territories (3 pairs/ 1 solitary male) | 1 territory (1 pair) | 1 territory (1 pair) | 1 territory (solitary male) | 1 territory (1 pair) |
| 43b | San Gabriel River-Lower | Negative | Negative | 1 territory (solitary male) | Negative | Negative | Negative | 1 territory (1 pair) |
| Total Territories | | 13 | 15 | 13 | 7 | 3 | 1 | 4 |

SECTION 1.0 INTRODUCTION

In 2002, focused surveys and habitat assessments were conducted at 54 soft-bottom channel reaches that included 53 of the original channel reaches plus 1 new channel reach identified as Reach 101 (Violin Canyon – PD 2312). All 53 original channel reaches have continued to be maintained by the LACFCD under the required regulatory permits, but Reach 101 and other new channel reaches added since that time have yet to be permitted. The purpose of the 2002 surveys was to provide baseline information on the occurrence or potential occurrence of Threatened or Endangered plant and wildlife species for permitted and non-permitted channel reaches. This information is updated annually during pre- and post-clearing surveys of all permitted and non-permitted soft-bottom channel reaches managed by the LACFCD.

1.1 ENVIRONMENTAL SETTING

1.1.1 REGIONAL SETTING

The topography in Los Angeles County is diverse, containing coastline, flatlands, mountains, and desert within approximately 4,000 square miles. Elevations in the County range from sea level to over 10,000 feet above mean sea level (msl). The climate ranges from mild near the coast to severe in the high mountains and in the desert. This variation in environments has created a unique and diverse collection of biological resources (England and Nelson 1976).

The San Gabriel Mountains are a prominent topographic feature that include a portion of the headwaters of the Santa Clara, Los Angeles, Rio Hondo, and San Gabriel Rivers, and are the source of streams that drain into the Antelope and Fremont Valleys. The San Gabriel Mountains rise 7,000 feet above msl from the Antelope and Santa Clarita Valleys and exert considerable influence on the climate, hydrology, and ecology of the lands around them. The San Andreas and other numerous faults have fractured the mountains so that they erode at a rapid rate. Hence, the stream basins along the northern slope are generally characterized by steep headwaters and sloping alluvial beds on the adjacent flatlands (CRA et al. 2001).

The Santa Monica Mountains are also a prominent topographic feature and include the headwaters of Malibu Creek and Topanga Creek; these are the sources of streams that drain to the Malibu Coast. The Santa Monica Mountains are up to 10 miles wide and reach an elevation of 3,100 feet above msl at Sandstone Peak. The Santa Monica Mountains have a complex structure because they have been uplifted and then eroded several times over the past 200 million years (Dale 1986; England and Nelson 1976).

There are 4 major rivers in Los Angeles County: the Los Angeles River is approximately 51 miles long (main stem) and drains 830 square miles; the Rio Hondo River is approximately 20 miles long (main stem) and drains 125 square miles; the San Gabriel River is approximately 59 miles long (main stem) and drains 350 square miles; and the Santa Clara River is approximately 75 miles long (main stem) and drains 1,616 square miles (LACFCD 2007). Numerous other streams also occur in Los Angeles County. Surface water in streams and rivers is generally only present during the winter and spring, particularly after storm events. Many storms do not generate sufficient runoff to sustain surface flow in all streams. In some areas, flows are supplemented with reclaimed water and agricultural and urban runoff. Particularly intense storms can result in flash floods or debris flows, which can carry large amounts of sediment, rocks, and debris to be deposited in the valley below (CRA et al. 2001).

The Los Angeles River system has been extensively channelized to provide flood protection as it passes through several cities on its way to the Pacific Ocean. The Los Angeles River tributaries include Bell Creek, Calabasas Creek, Burbank Western Channel, Pacoima Wash,

Tujunga Wash, Verdugo Wash, Arroyo Seco, Compton Creek, and the Rio Hondo River (LACFCD 2007). There are now over 400 miles of concrete-lined tributaries that feed into the main channel (LACFCD 2007). Approximately 47.9 miles of the 51.0-mile river is concrete-lined. The two stretches where the river is not lined (i.e., soft or earthen bottom channels) are the Sepulveda Flood Control Basin through the Glendale Narrows and south of Willow Street in Long Beach (LACFCD 2007). Reclaimed water enters the Los Angeles River at the Sepulveda Basin where the Department of Water and Power releases as much as 75 million gallons of reclaimed water daily from the Donald C. Tillman Water Reclamation Plant.

The San Gabriel River begins in the Angeles National Forest and also flows through several cities on its way to the Pacific Ocean. The San Gabriel River tributaries include Walnut Creek, San Jose Creek, Coyote Creek, and numerous storm drains (LACFCD 2007). The headwaters of the San Gabriel River begin just north of Pasadena and northwest of Mount Wilson, where they flow through a steep canyon to Cogswell Reservoir. The west fork of the river then merges with the east fork and flows into the San Gabriel Reservoir. Below the reservoir, the east fork converges with the main stem of the San Gabriel River and flows through San Gabriel Canyon to Morris Reservoir. Below Morris Reservoir, the river flows through cities from Azusa to Seal Beach and empties into the Long Beach Harbor.

The Santa Clara River is unique because it is the only major non-channelized river that drains the San Gabriel Mountains. The Santa Clara River is fed by five major tributaries: Sand Canyon, Mint Canyon, Bouquet Canyon, South Fork, and San Francisquito Canyon (LACFCD 2007). Further west, Castaic, Piru, Sespe, and Santa Paula Creeks join the river (CRA et al. 2001). The headwaters of the Santa Clara River are located near Acton, and the river runs approximately 100 miles to its outlet in the City of Ventura in Ventura County. Most development adjacent to the river is located in or near the City of Santa Clarita (LACFCD 2007).

The Malibu Creek Watershed is a system of independent streams that drains approximately 109 square miles in northwest Los Angeles County from the Santa Monica Mountains to the Pacific Ocean. These include Las Virgenes, Triunfo, and Cold Creeks, as well as other small streams that flow from the Santa Monica Mountains to Santa Monica Bay. These creeks flow through the cities of Agoura Hills, Calabasas, Malibu, Thousand Oaks, Westlake Village, unincorporated Los Angeles County, and Ventura County (LACFCD 2007).

The Ballona Creek Watershed is a ten-mile-long flood-control channel that drains the Los Angeles basin from the Santa Monica Mountains to the north, the Harbor Freeway (Interstate [I] 110) to the east, and the Baldwin Hills to the south. All together, the Ballona Creek Watershed drains approximately 130 square miles of the Los Angeles Basin. Creeks or drainages of this watershed include Centinela Creek, Sepulveda Channel, and Benedict Canyon Channel. These drainages pass through the communities of Beverly Hills, Culver City, Inglewood, Los Angeles, and West Hollywood (LACDPW 2007).

The Dominguez Channel Watershed is situated in south Los Angeles County and drains approximately 133 square miles of the Los Angeles Basin into the Los Angeles Harbor. Parts of the communities of Hawthorne, Torrance, Gardena, Carson, and Wilmington drain into the Dominguez Channel. Over 40 percent of this watershed consists of industrial, commercial, and transportation land uses.

The Antelope Valley Watershed is a system of independent streams that drains approximately 1,200 square miles in north Los Angeles County from the San Gabriel Mountains and Kern County into the valley floor. These include Little Rock, Big Rock, and Mill Creeks, as well as other small streams that flow from the San Gabriel Mountains into the Antelope Valley. Due to the surrounding topography, these streams do not drain into the sea, but into dry lakebeds on the valley floor, with most surface flows infiltrating into groundwater basins or evaporating

(CRA et al. 2001; LACFCD 2007). Because the valley lacks defined natural channels outside the foothills, it is subject to unpredictable sheet flow patterns (LACFCD 2007). The portion of the Antelope Valley Watershed in Los Angeles County includes the cities of Lancaster and Palmdale, with scattered clusters of sparse development outside these cities (LACFCD 2007). None of the channel reaches discussed in this report are located in the Antelope Valley Watershed.

1.1.2 LOCAL SETTING

In 2002, the LACFCD maintained 95 soft-bottom channel reaches located within its district boundaries, consisting of 885.58 acres that require management. Since 2002, ten soft-bottom channel reaches have been lost due to development or ownership change, but several more have been added to the list. As of 2013, the LACFCD manages 108 channel reaches (Nos. 1 through 117¹) that are located in 7 identified watersheds of Los Angeles County:

- Los Angeles River/San Pedro Bay – 25 channel reaches²
- Dominguez Channel – 3 channel reaches
- Malibu Creek – 9 channel reaches
- San Gabriel River – 9 channel reaches (not splitting Reaches 40 and 43 and including Reach 116, Los Cerritos Channel)
- Santa Clara River – 59 channel reaches
- Ballona Creek – 1 channel reach
- Antelope Valley – 1 channel reach

In 1997, the 95 soft-bottom flood-control channel reaches encompassed 885.58 acres and included 205.27 acres of vegetation. Based on vegetation categories developed at the time, the 205.27 acres of vegetation included an estimated 105.32 acres of riparian vegetation, 63.40 acres of mule fat vegetation, and 36.55 acres of scrub vegetation (BonTerra Consulting 1999). The acreages noted above have not been updated since that time and are presented to indicate the large amount of habitat under LACFCD jurisdiction.

Survey Areas

Of the 94 maintained channel reaches within the boundaries of the LACFCD, 22 reaches have been determined to contain potential habitat for Threatened or Endangered amphibian (arroyo toad) and/or bird (southwestern willow flycatcher and least Bell's vireo) species. These channel reaches are the subject of the focused survey effort and are described below.

Los Angeles River Watershed/San Pedro Bay

Reach 12 – Haines Canyon Main Channel Outlet

Reach 12, Haines Canyon Main Channel Outlet, is located within the Tujunga Wash approximately one mile northwest of the intersection of Mount Gleason Avenue and Foothill Boulevard, in the community of Sunland, City of Los Angeles (Exhibit 1). Reach 12 is approximately 437 feet in total length, extending approximately 791 feet downstream of

¹ Numbers for channel reaches that have been developed or had their ownership transferred are no longer in use.

² Although it had been previously included in the regulatory permits, it was recently determined during the Los Angeles River Watershed Feasibility Study that the Sheep Corral Channel (Reach 17) flood-control facility was owned and maintained by the City of Glendale and not the LACFCD.

Wentworth Street to approximately 1,228 feet downstream. It is found in Section 11 on the U.S. Geological Survey (USGS) Sunland 7.5-minute quadrangle map at Township 2 North and Range 14 West.

Reach 14 – May Channel (Main Channel Outlet into Pacoima Canyon)

Reach 14, May Channel (Main Channel Outlet into Pacoima Canyon), is located within the Pacoima Wash, approximately 1.25 miles east of the intersection of the Foothill Freeway (I-210) and Hubbard Street in the City of Los Angeles (Exhibit 2). Reach 14 is 690 feet in total length extending from 3,038 feet downstream of Hubbard Street to approximately 3,728 feet downstream of the confluence of Hubbard Street with Pacoima Canyon. It is found in Section 25 on the USGS San Fernando 7.5-minute quadrangle at Township 3 North and 15 Range West.

Reach 27 – Wilmington Drain

Reach 27, Wilmington Drain, is located within the San Pedro Bay Watershed in unincorporated Los Angeles County and within the Wilmington community of the City of Los Angeles (Exhibit 3). The limits of Reach 27 are the Harbor (I-110) Freeway to Pacific Coast Highway. Reach 27 is approximately 3,584 feet in total length. The reach is found in Section 25 of the USGS Torrance 7.5-minute quadrangle map at Township 4 South and Range 14 West.

Malibu Creek Watershed/Santa Monica Bay

Reach 28 –Triunfo Creek (PD T2200)

Reach 28, Triunfo Creek (PD T2200), is located within the Malibu Creek Watershed in unincorporated Los Angeles County, approximately 0.1 mile east of the Mulholland Highway and Troutdale Drive intersection (Exhibit 4). The limits of Reach 28 are approximately 384 feet upstream of Mulholland Highway to the downstream edge of Mulholland Highway. Reach 28 is approximately 474 feet in total length. The reach is found in Section 4 of the USGS Point Dume 7.5-minute quadrangle map at Township 1 South and Range 18 West.

San Gabriel River Watershed

Reach 39 – Beatty Channel Outlet at San Gabriel River

Reach 39, Beatty Channel Outlet at San Gabriel River (25+99.00±50'), is located within the San Gabriel River Watershed, approximately 0.8 mile north of the Foothill Boulevard and Irwindale Avenue intersection in the City of Azusa (Exhibit 5). The limits of Reach 39 are approximately 2,323 feet downstream of Todd Avenue to approximately 2,415 feet downstream of Todd Avenue. Reach 39 is 145 feet in total length. The reach is found in Section 28 of the USGS Azusa 7.5-minute quadrangle map at Township 1 North and Range 10 West.

Reach 40b – San Gabriel River – Santa Monica (I-10) Freeway to Thienes Avenue

Reach 40b, San Gabriel River-Santa Monica (I-10) Freeway to Thienes Avenue, is located within the San Gabriel River Watershed in the San Gabriel Valley area (Exhibit 6). The limits of Reach 40b are the Santa Monica (I-10) Freeway (upstream) and Thienes Avenue (downstream). Reach 40b has a total length of approximately 10,800 feet. The reach is found in Sections 23, 26, and 34 of the USGS Baldwin Park 7.5-minute quadrangle map at Township 1 South and Range 11 West.

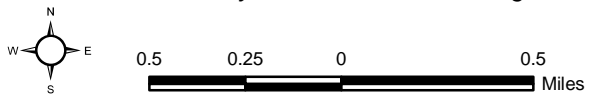
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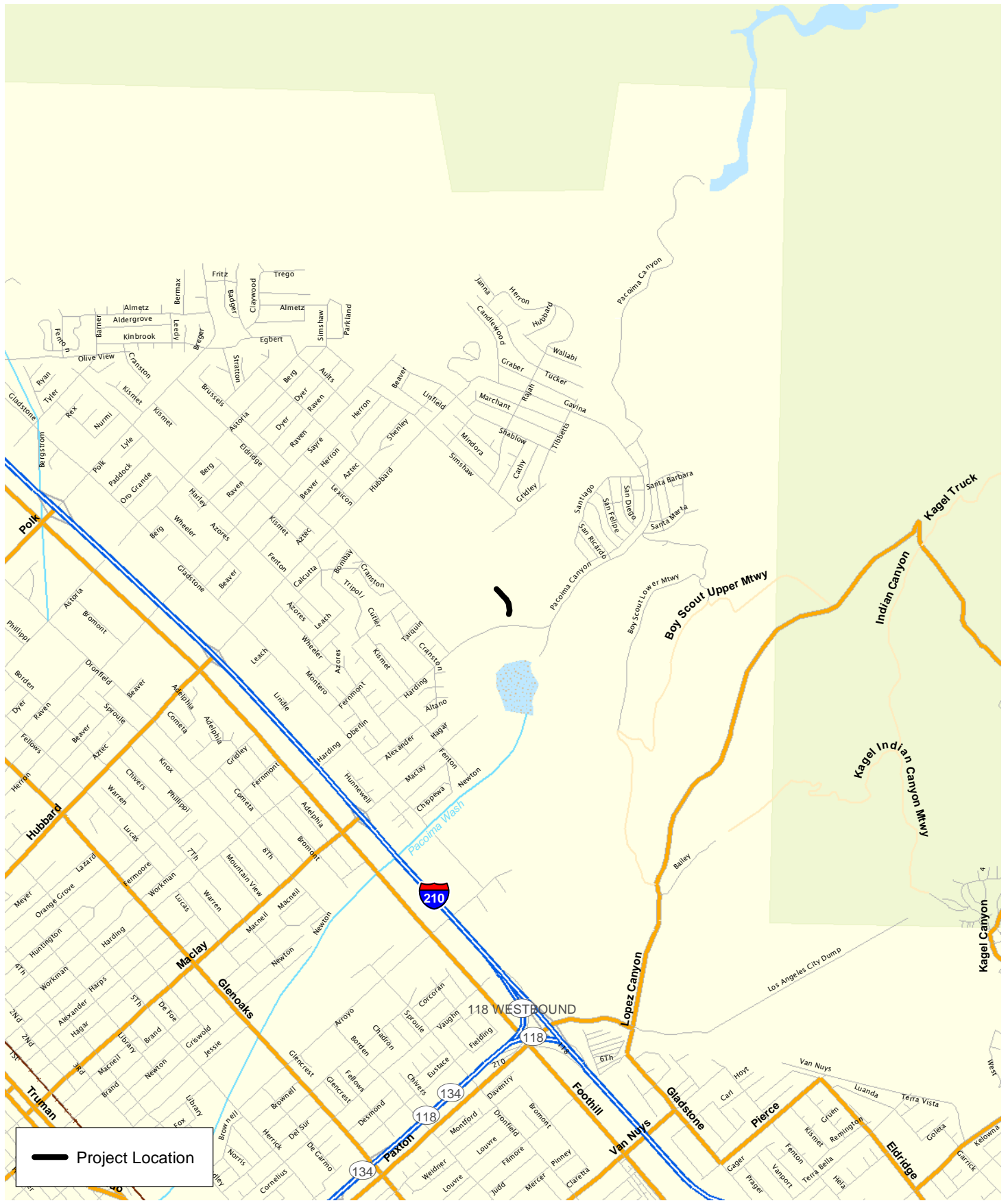
Reach 12 - Haines Canyon Main Channel Outlet

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

Exhibit 1



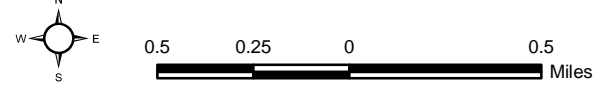
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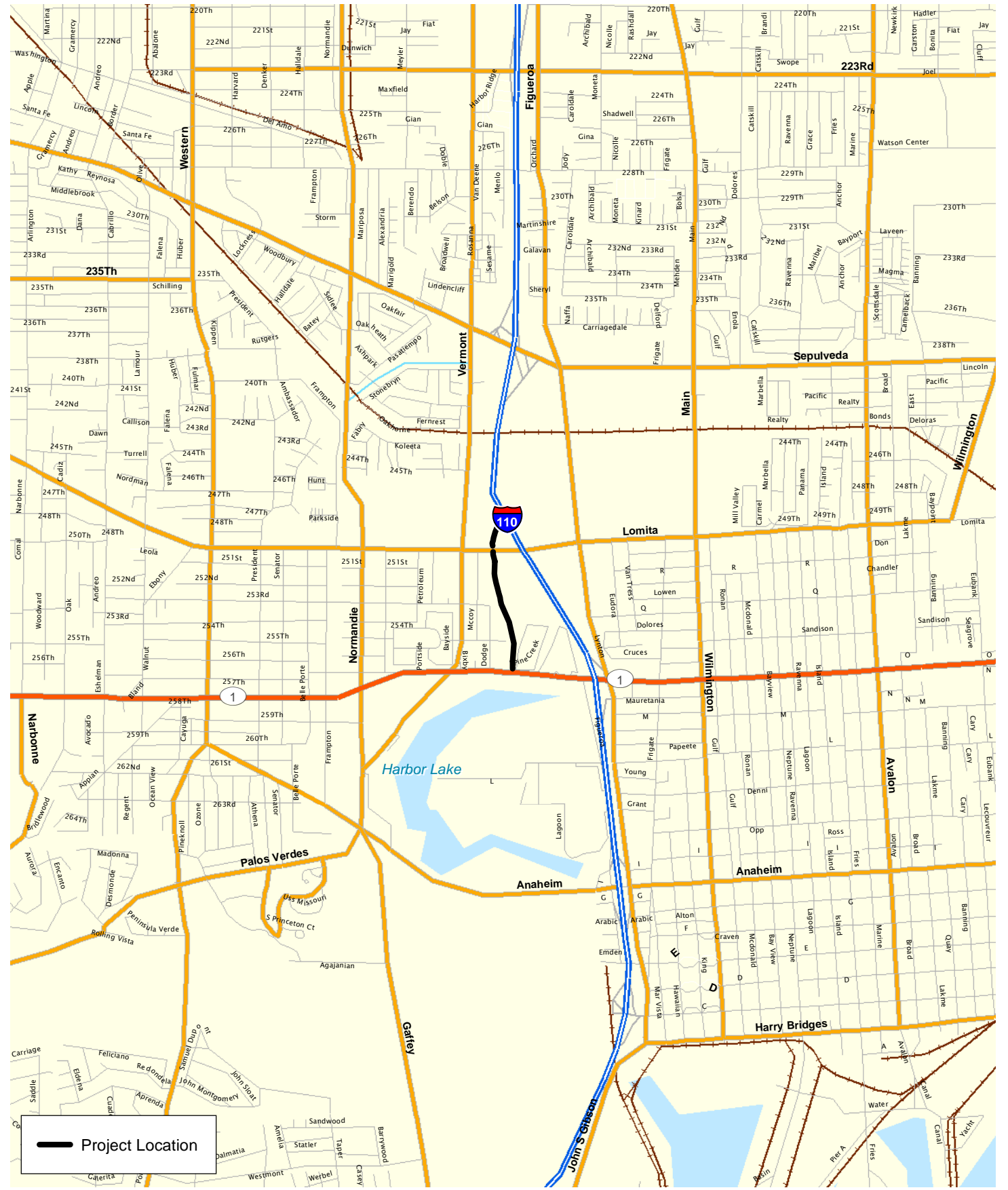
Reach 14 - May Channel (Main Channel Outlet into Pacoima Canyon)

Exhibit 2

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

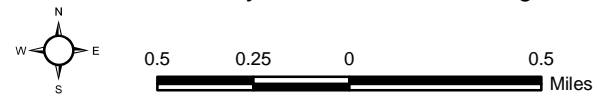


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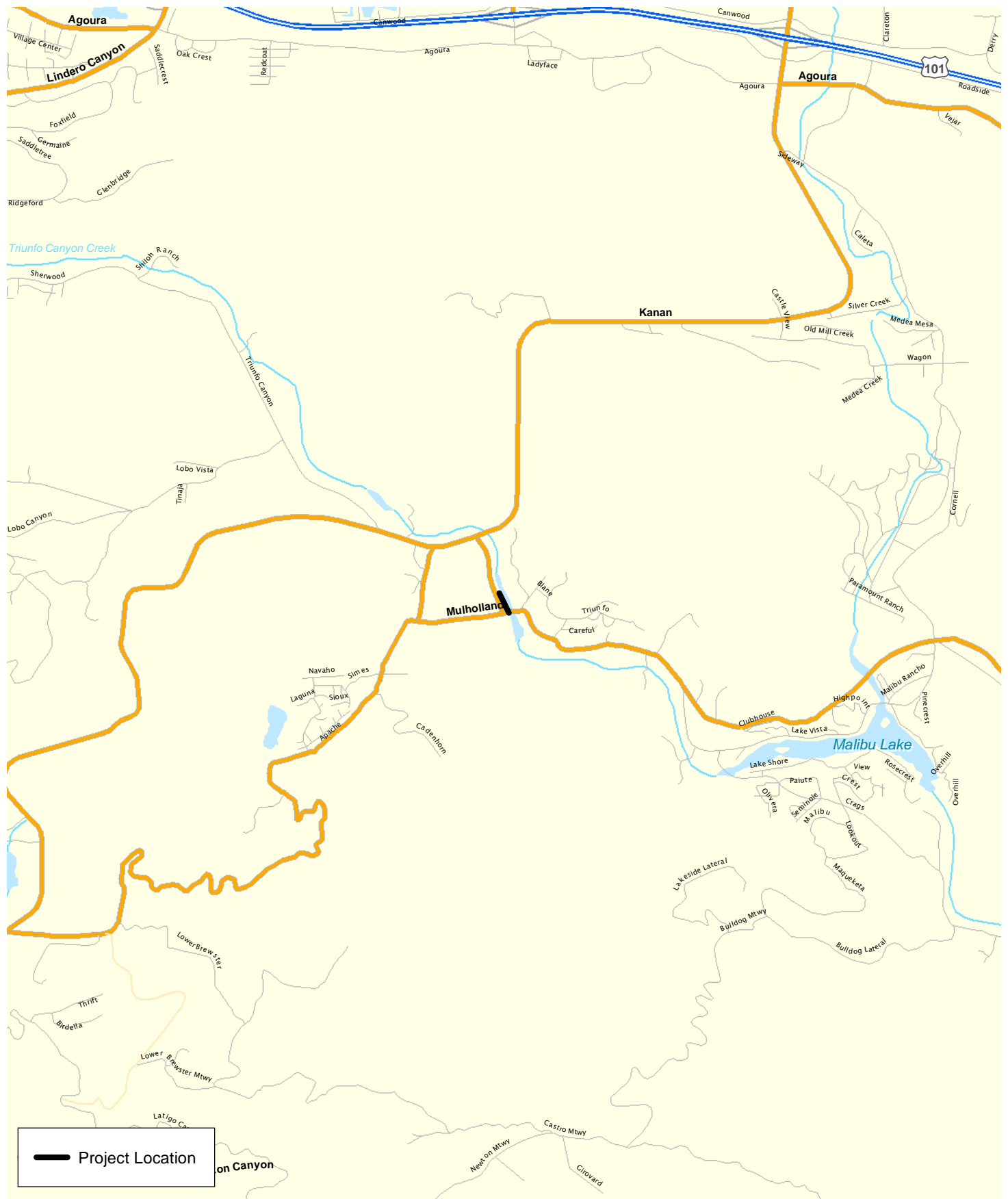


Reach 27 - Wilmington Drain
 2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

Exhibit 3



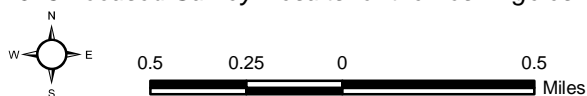
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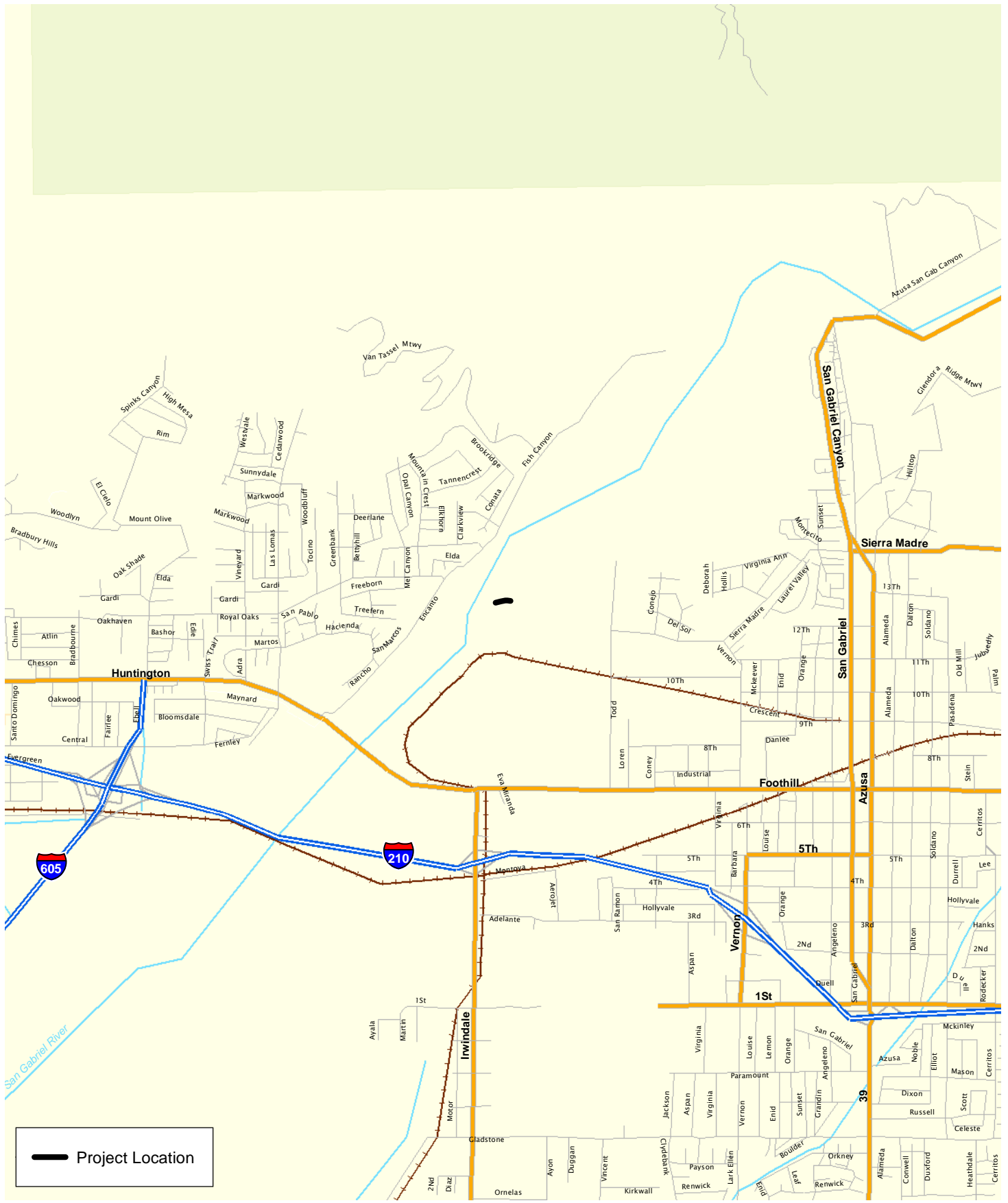
Reach 28 - Triunfo Creek (PD T2200)

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

Exhibit 4



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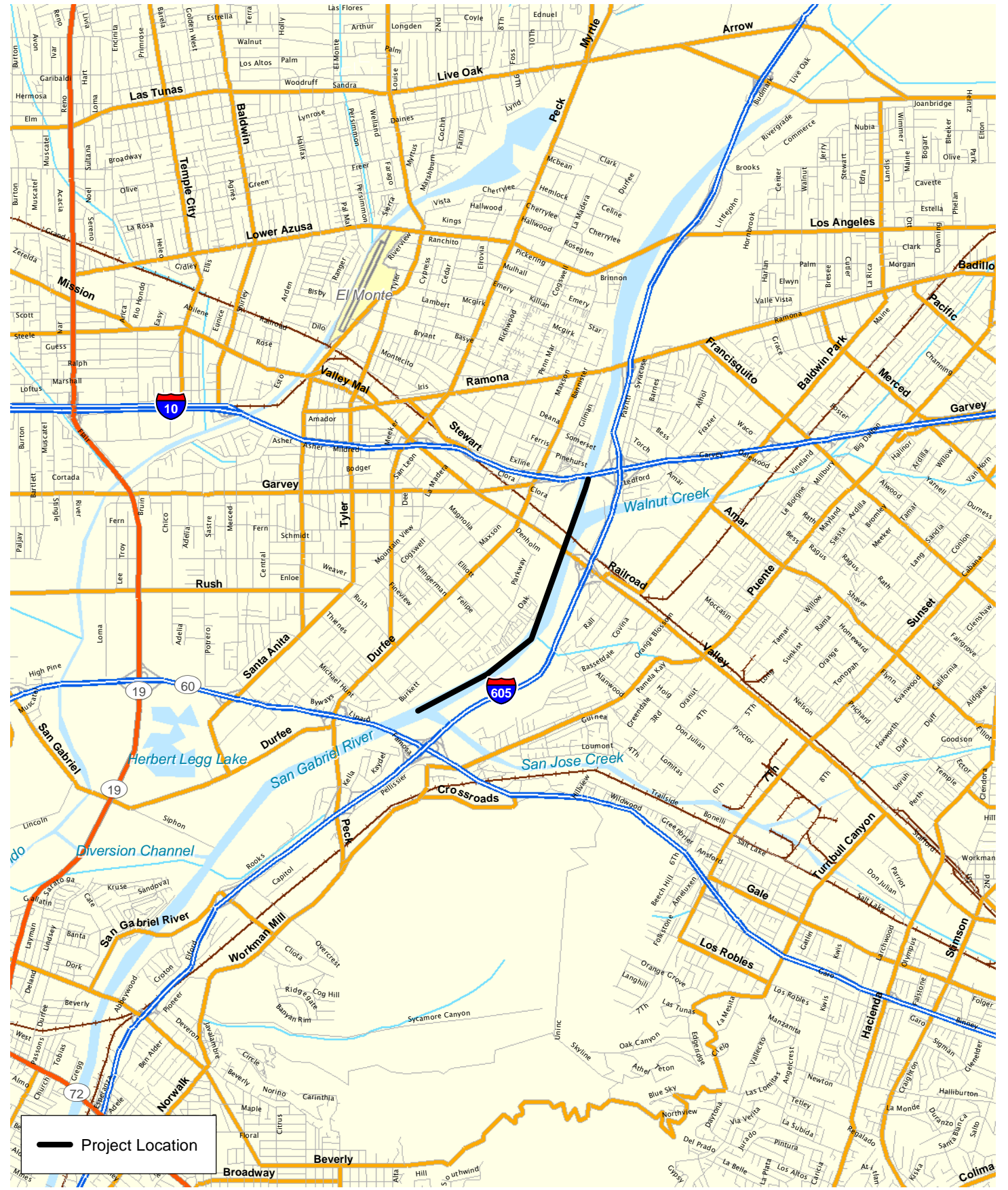
Reach 39 - Beatty Channel Outlet at San Gabriel River (25+99.00+50')

Exhibit 5

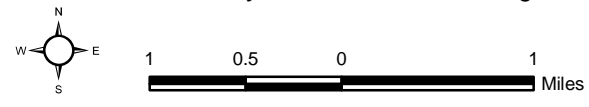
2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



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Reach 40b – San Gabriel River – Santa Monica (I-10) Freeway to Thienes Avenue Exhibit 6
 2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



Reach 43a – San Gabriel River – Upper

Reach 43a, San Gabriel River – Upper, is located within the San Gabriel River Watershed, in the San Gabriel Valley area (Exhibit 7). The limits of Reach 43a are between Whittier Narrows Dam and San Gabriel River Parkway. Reach 43a has a total length of approximately 3,450 feet. The reach is found in Sections 5 and 8 of the USGS Whittier 7.5-minute quadrangle map at Township 2 South and Range 11 West.

Reach 43b – San Gabriel River – Lower

Reach 43b, San Gabriel River – Lower, is located within the San Gabriel River Watershed, in the San Gabriel Valley area (Exhibit 8). The limits of Reach 43b are San Gabriel River Parkway (upstream) and Beverly Boulevard (downstream). Reach 43b has a total length of approximately 3,050 feet. The reach is found in Sections 7 and 8 of the USGS Whittier 7.5-minute quadrangle map at Township 2 South and Range 11 West.

Santa Clara River Watershed

Reach 71 – Santa Clara River Main Channel (PD 1946)

Reach 71, Santa Clara River Main Channel (PD 1946), is located within the Santa Clara River-South Fork Watershed in the City of Santa Clarita (Exhibit 9). The limits of Reach 71 are approximately 276 feet upstream of McBean Parkway (at the confluence with the South Fork of the Santa Clara River) to the downstream edge of McBean Parkway. Reach 71 is 346 feet in total length. The reach is found in Section 16 of the USGS Newhall 7.5-minute quadrangle map at Township 4 North and Range 16 West.

Reach 75 – South Fork – Santa Clara River (PDs 725, 916, 1041, 1300)

Reach 75, South Fork – Santa Clara River (PDs 725, 916, 1041, 1300), is located within the Santa Clara River – South Fork Watershed in the City of Santa Clarita (Exhibit 10). The limits of Reach 75 are approximately 255 feet downstream of Lyons Avenue to the downstream edge of Magic Mountain Parkway. Reach 75 is 13,965 feet in total length. The reach is found in Sections 22, 27, and 34 of the USGS Newhall 7.5-minute quadrangle map at Township 4 North and Range 16 West.

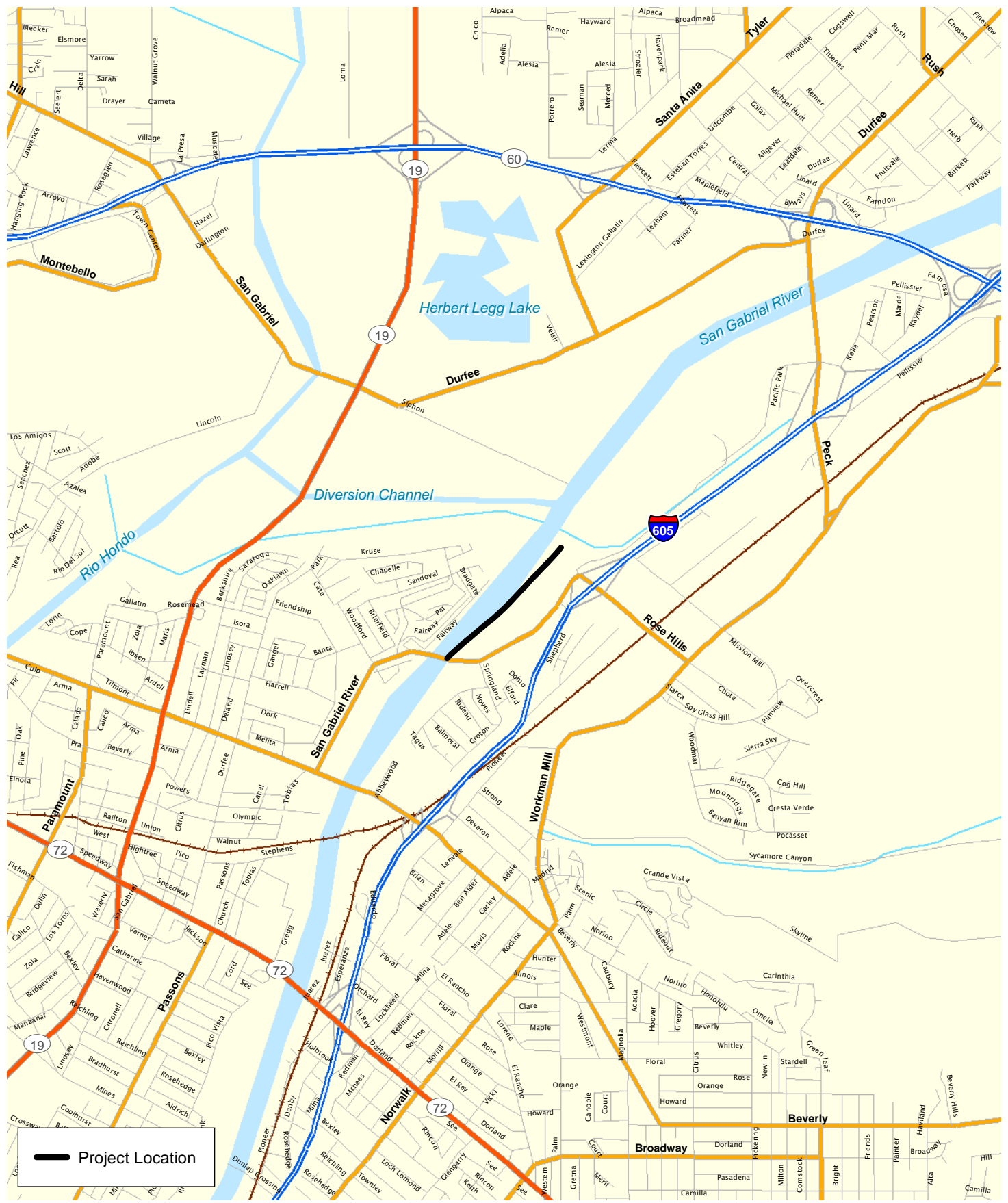
Reach 79 – South Fork – Santa Clara River (Valencia Boulevard Bridge Stabilizer)

Reach 79, South Fork – Santa Clara River (Valencia Boulevard Bridge Stabilizer), is located within the Santa Clara River – South Fork Watershed (Exhibit 11). The limits of Reach 79 are the downstream edge of Valencia Boulevard to approximately 167 feet downstream of Valencia Boulevard. Reach 79 is 167 feet in total length. The reach is found in Sections 5 and 7 of the USGS Newhall 7.5-minute quadrangle map at Township 2 South and Range 11 West.

Reach 80 – South Fork-Santa Clara River (PDs 1947 and 1946)

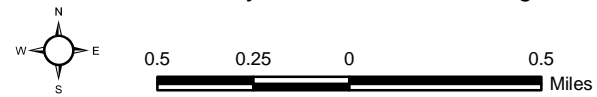
Reach 80, South Fork – Santa Clara River (PDs 1947 and 1946), is located within the Santa Clara River – South Fork Watershed (Exhibit 12). The limits of Reach 80 are approximately 3,080 feet upstream of McBean Parkway to approximately 276 feet upstream of McBean Parkway and the confluence with Santa Clara River. Reach 80 is 2,804 feet in total length. The reach is found in Sections 15 and 16 of the USGS Newhall 7.5-minute quadrangle map at Township 4 North and Range 16 West.

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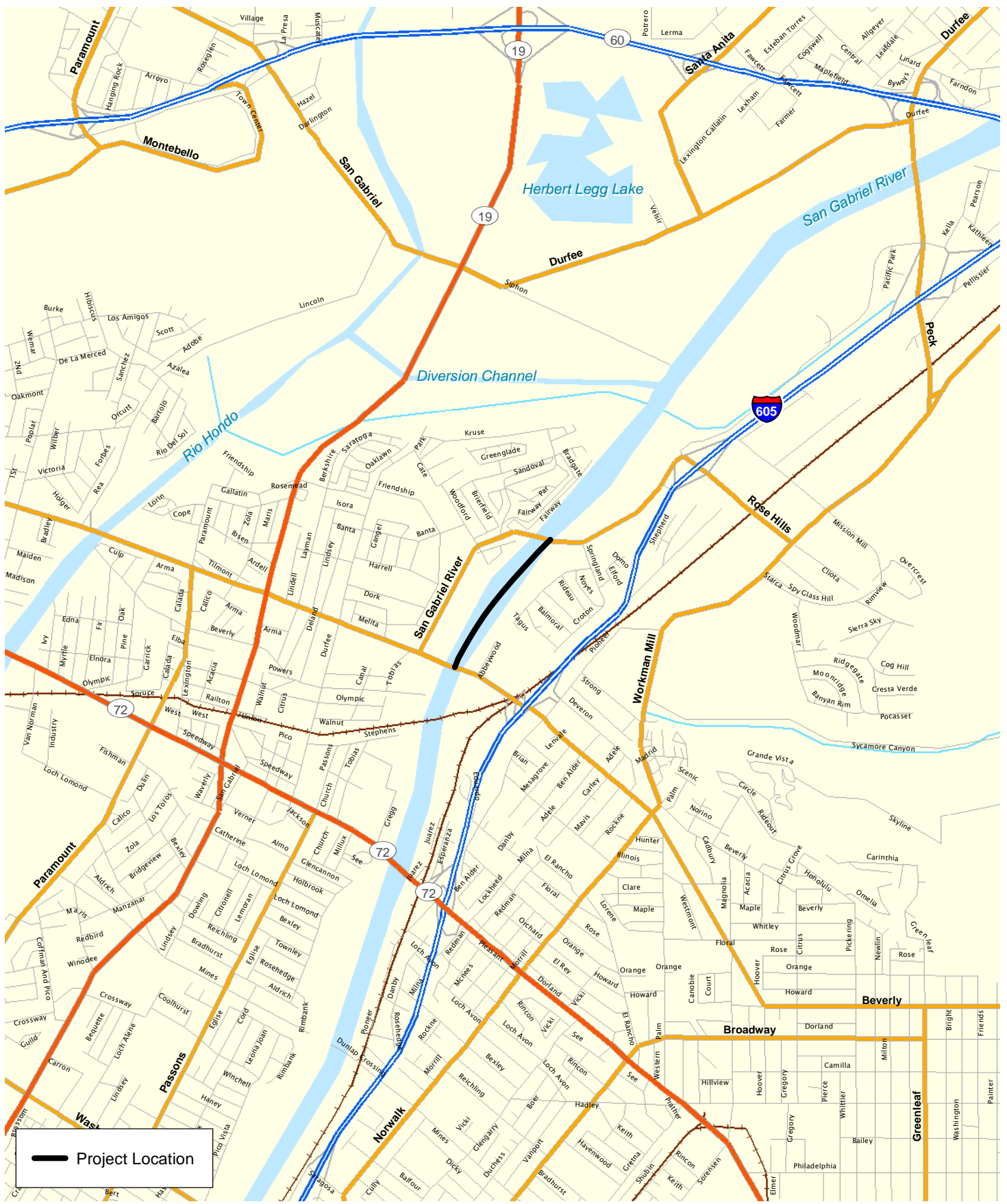


Reach 43a - San Gabriel River - Upper
 2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

Exhibit 7

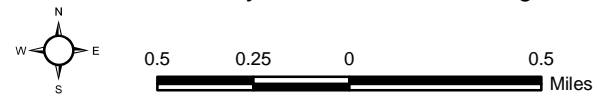


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Reach 43b – San Gabriel River – Lower
 2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

Exhibit 8



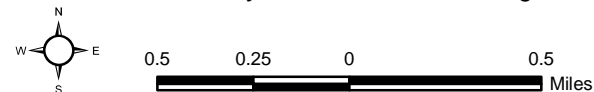


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Reach 75 - South Fork - Santa Clara River (PDs 725, 916, 1041, 1300)

Exhibit 10

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



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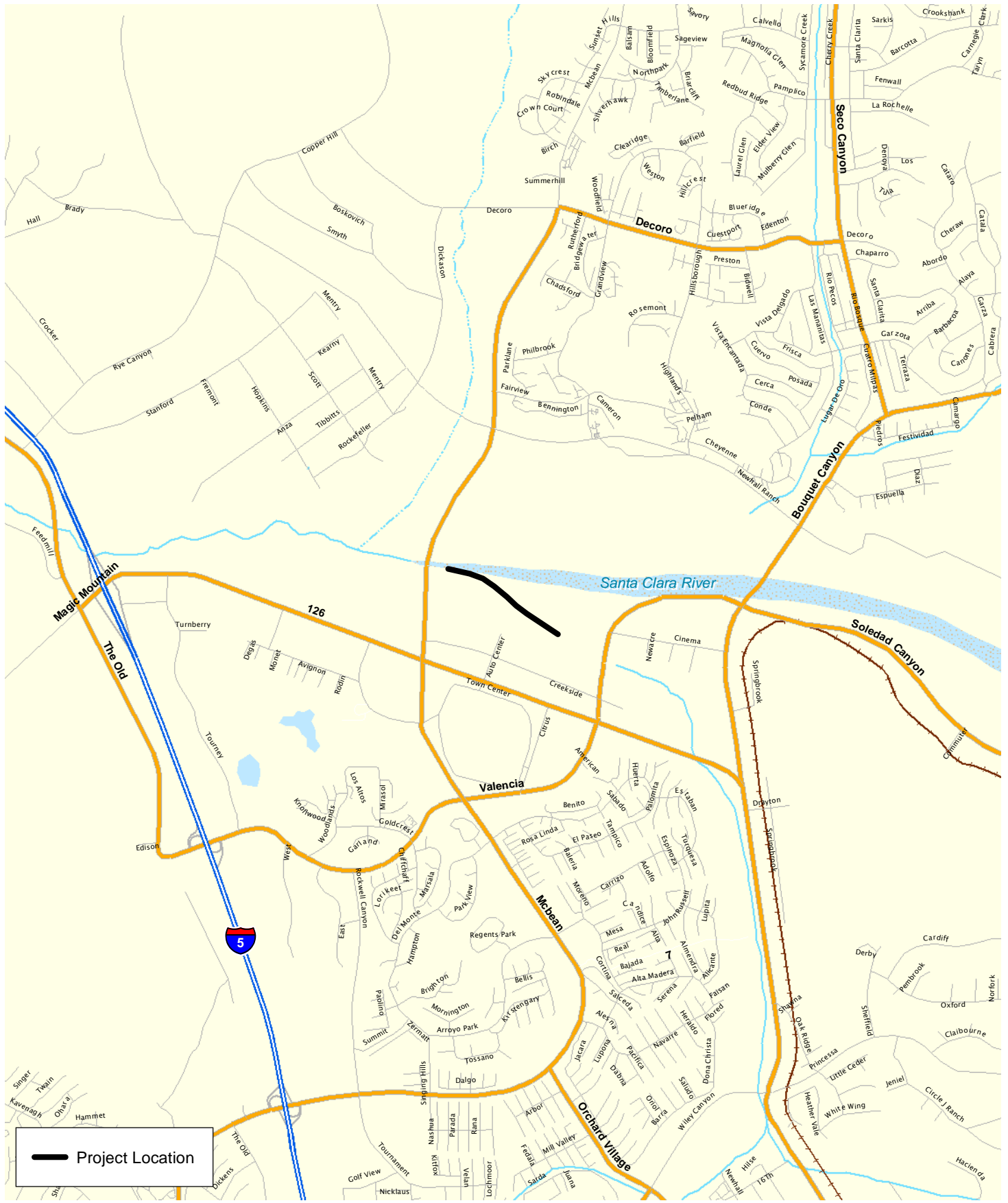


Reach 79 - South Fork - Santa Clara River (Valencia Boulevard Bridge Stabilizer)
 2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

Exhibit 11

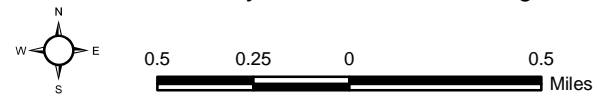


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Reach 80 - South Fork - Santa Clara River (PDs 1947 and 1946)
 2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

Exhibit 12



Reach 82 – Santa Clara River Main Channel (PD 2278)

Reach 82, Santa Clara River Main Channel (PD 2278), is located within the Santa Clara River Watershed, approximately 0.75 mile east of the I-5 and Magic Mountain Parkway intersection in the City of Santa Clarita (Exhibit 13). The upstream limits of Reach 82 are approximately 740 feet southeast of the intersection of Hopkins Avenue and Rockefeller Avenue to just south of the intersection of Hopkins Avenue and Rockefeller Avenue. Reach 82 is 865 feet in total length. The reach is found in Section 16 of the USGS Newhall 7.5-minute quadrangle map at Township 4 North and Range 16 West.

Reach 86 – Violin Canyon Main Channel Outlet

Reach 86, Violin Canyon Main Channel Outlet, is located within the Castaic Creek Watershed in the community of Castaic in unincorporated Los Angeles County, approximately 0.5 mile southeast of the I-5 and Lake Hughes Road intersection (Exhibit 14). The limits of Reach 86 are approximately 1,021 feet downstream of Ridge Route Road to the confluence with Castaic Creek. Reach 86 is 946 feet in total length. The reach is found in Sections 23 and 24 of the USGS Newhall 7.5-minute quadrangle map at Township 5 North and Range 17 West.

Reach 87 – Castaic – Old Road Drain (CDR 525.021D) Outlet

Reach 87, Castaic – Old Road Drain (CDR 525.021D) Outlet, is located within the Castaic Creek Watershed, approximately one mile northwest of the I-5 and Henry Mayo Drive (State Route 126) in the Castaic Junction Community of unincorporated Los Angeles County (Exhibit 15). The limits of Reach 87 are approximately 610 feet downstream of the intersection of Hasley Canyon Road and Old Road to the confluence with Castaic Creek. Reach 87 is 240 feet in total length. The reach is found in Section 12 of the USGS Newhall 7.5-minute quadrangle map at Township 4 North and Range 17 West.

Reach 97 – Castaic Creek – The Old Road (PD 1982)

Reach 97, Castaic Creek – The Old Road (PD 1982), is located within the Castaic Creek Watershed in the Castaic Junction Community of unincorporated Los Angeles County (Exhibit 16). The limits of Reach 97 are approximately 300 feet downstream to 2,300 feet downstream of The Old Road. Reach 97 is 2,000 feet in total length. The reach is found in Section 12 of the USGS Newhall 7.5-minute quadrangle map at Township 4 North and Range 17 West.

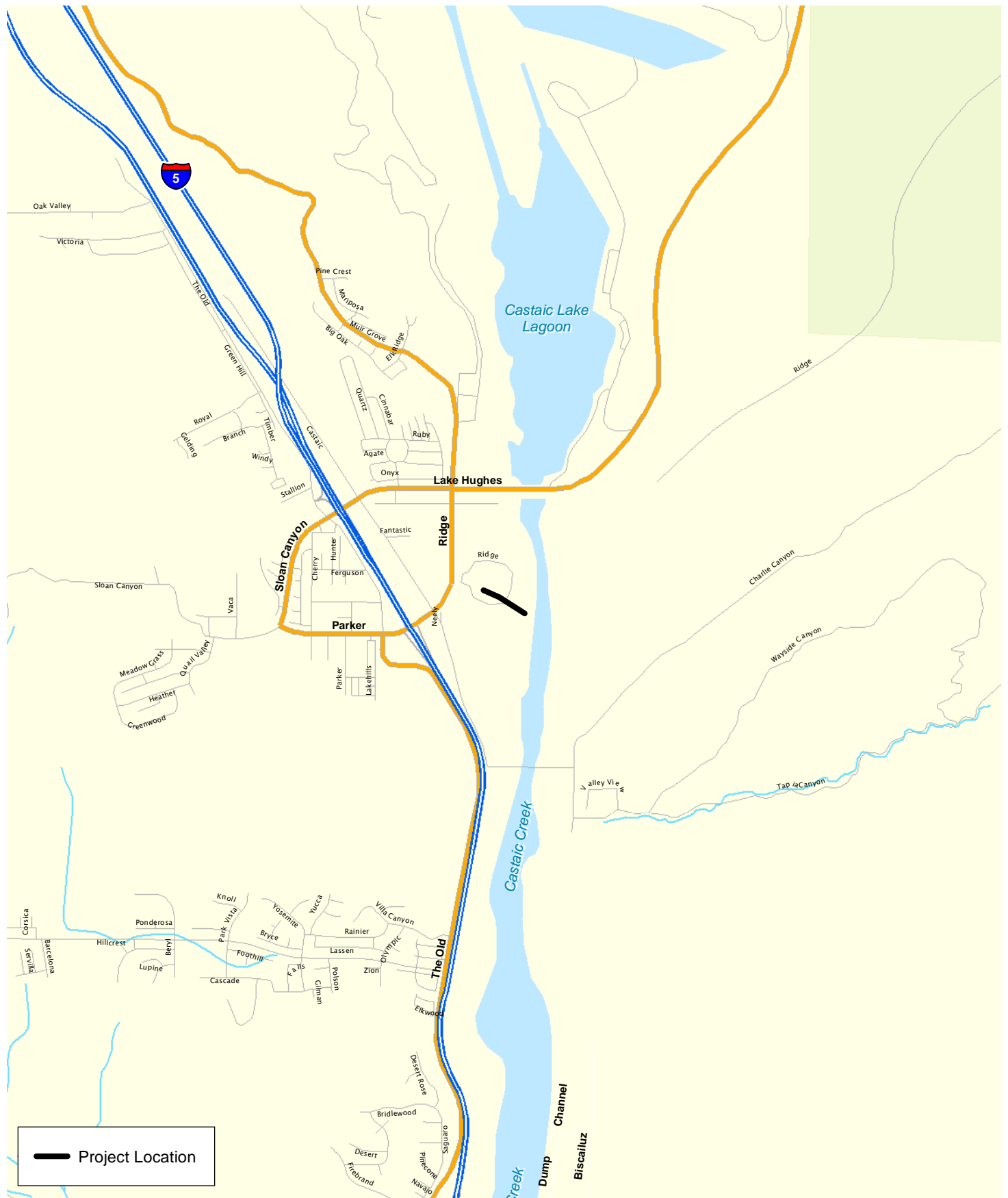
Reach 103 – Bouquet Canyon Channel (PD 2225)

Reach 103, Bouquet Canyon Channel (PD 2225), is located within the Santa Clara River Watershed (Exhibit 17). The limits of Reach 103 are approximately 173 feet downstream of the centerline of Newhall Ranch Road (beginning of Grouted Stone Toe) to the Metropolitan Water District Fee Right-of-Way on the right bank and the embankment turn at the Santa Clara River on the left bank. Reach 103 is 1,824 feet in total length. The reach is found in Section 16 of the USGS Newhall 7.5-minute quadrangle map at Township 4 North and Range 16 West.

Reach 104 – Castaic Creek (PD 2441 – Units 1 and 2)

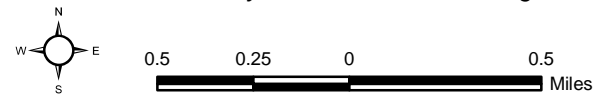
Reach 104 – Castaic Creek (PD 2441 – Units 1 and 2), is located within the Castaic Creek Watershed. The limits of Reach 104 are approximately 669 feet upstream of the Muirfield Lane Centerline to 478 feet downstream of the Turnberry Lane Centerline (Exhibit 18). Reach 104 is 2,186 feet in total length. The reach is found in Section 12 of the USGS Newhall 7.5-minute quadrangle map at Township 4 North and Range 17 West.

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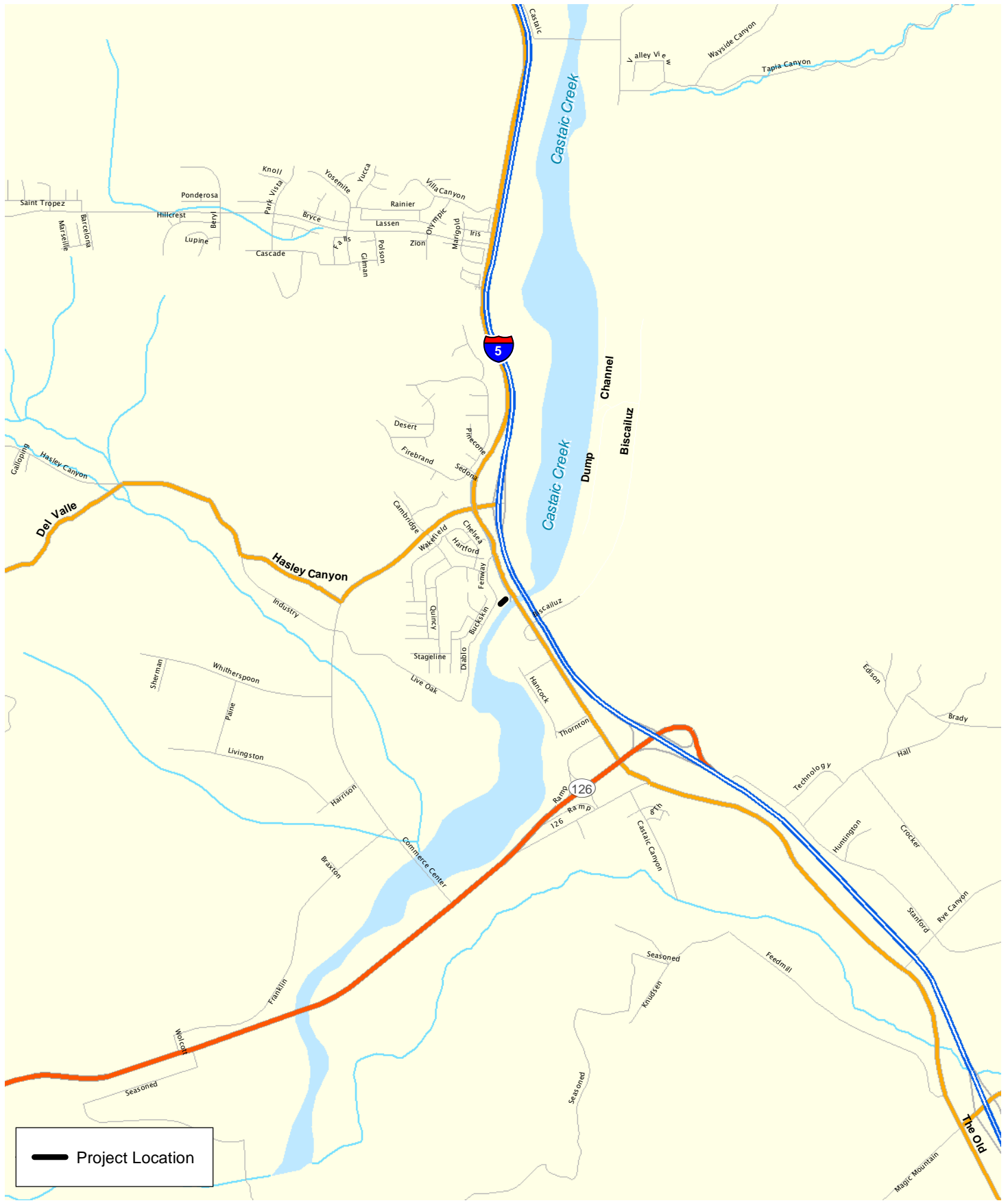


Reach 86 - Violin Canyon Main Channel Outlet
 2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

Exhibit 14



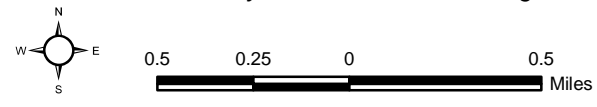
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Reach 87 - Castaic Creek - The Old Road Drain (CDR 525.021D) Outlet

Exhibit 15

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



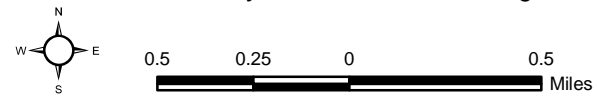
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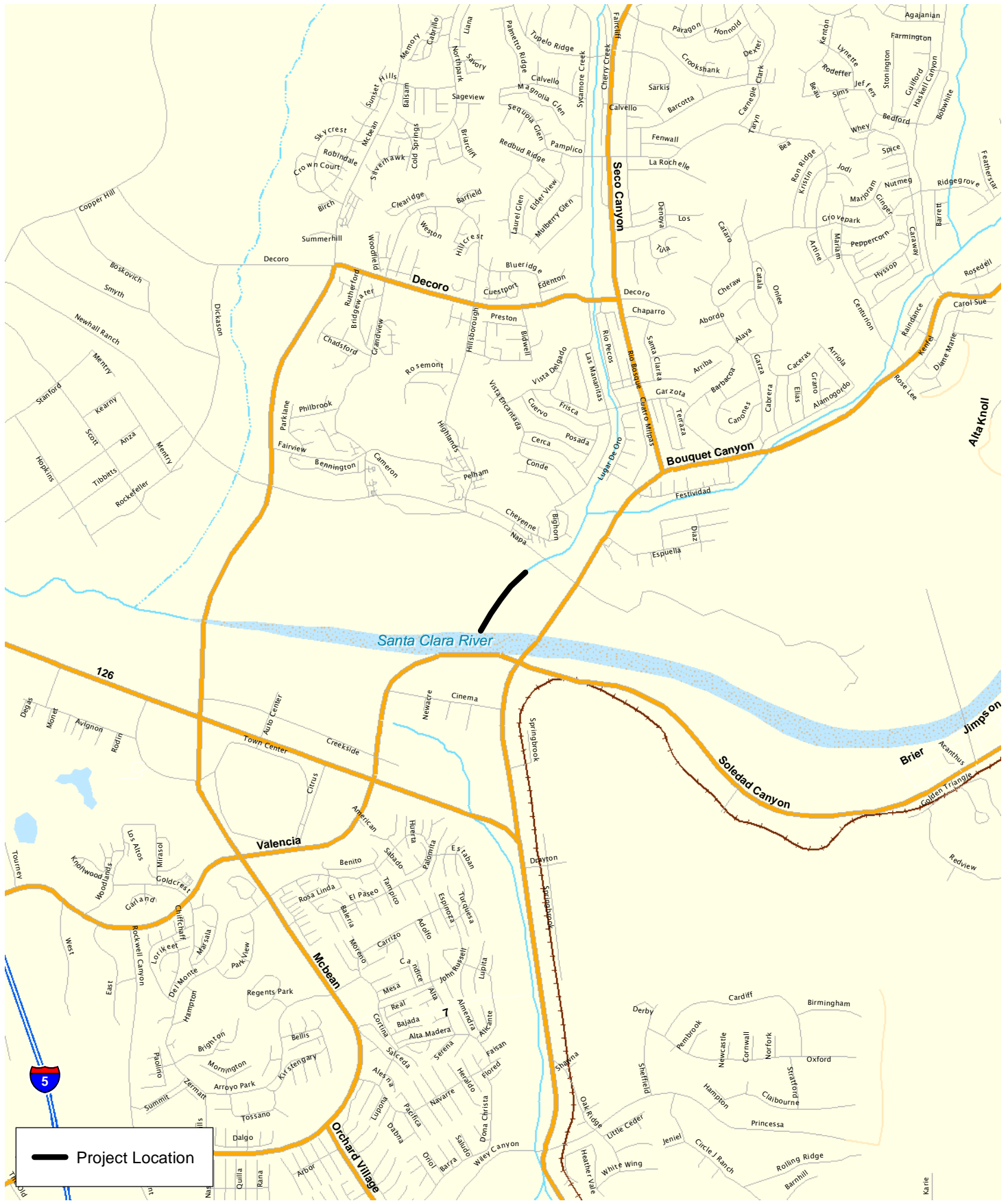



Reach 97 - Castaic Creek - The Old Road (PD 1982)

Exhibit 16

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels





 Project Location

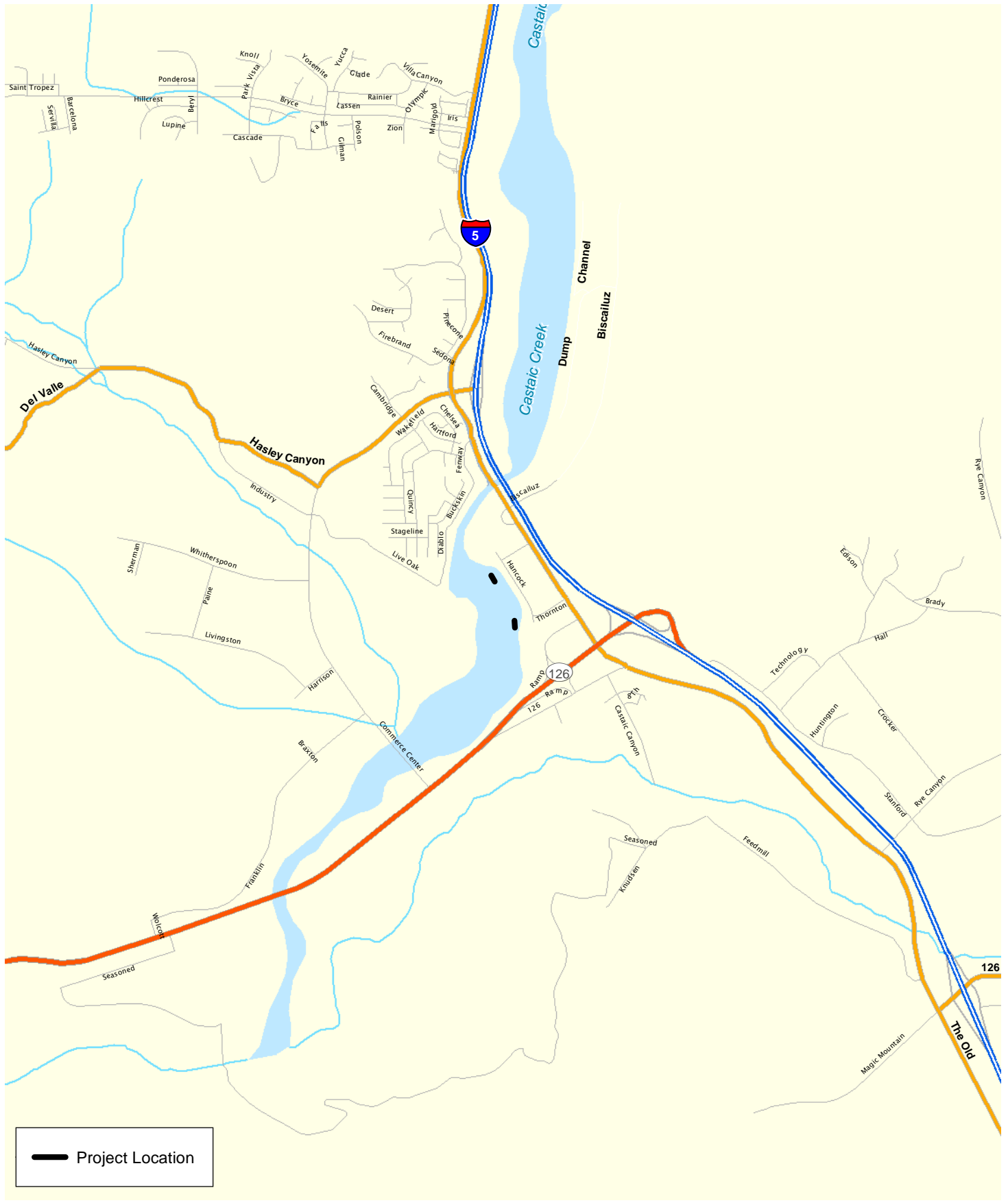
Reach 103 – Bouquet Canyon Channel (PD 2225)

Exhibit 17

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



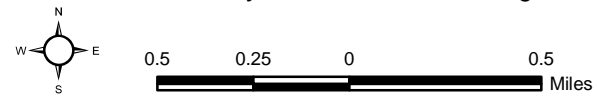
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Reach 104 - Castaic Creek (PD 2441 Units 1 and 2)

Exhibit 18

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



Reach 105 – San Francisquito Canyon Channel (PD 2456)

Reach 105, San Francisquito Canyon Channel (PD 2456), is located within the Santa Clara River Watershed in unincorporated Los Angeles County (Exhibit 19). The limits of Reach 105 are approximately 417 feet upstream of the Decoro Drive Centerline to 416 feet downstream of the Decoro Drive Centerline. Reach 105 is 833 feet in total length. The reach is found in Section 9 of the USGS Newhall 7.5-minute quadrangle map at Township 4 North and Range 16 West.

Reach 106 – Castaic Drain Outlet (RMD³ Channel)

Reach 106, Castaic Drain Outlet (RMD Channel), is located within the Santa Clara River Watershed. The limits of Reach 106 are approximately the toe of grouted riprap apron to approximately 147 feet downstream of grouted riprap apron (Exhibit 20). Reach 106 is 147 feet in total length. The reach is found in Section 25 of the USGS Newhall 7.5-minute quadrangle map at Township 5 North and Range 17 West.

Reach 109 – Santa Clara River – South Bank West of McBean Parkway (MTD 1510)

Reach 109, Santa Clara River – South Bank West of McBean Parkway (MTD 1510), is an outlet located on the south bank (concrete levee) just west or downstream of McBean Parkway (Exhibit 21). The limits of Reach 109 are from the outlet, approximately 300 feet downstream of the McBean Parkway centerline to approximately 371 feet downstream of the McBean Parkway centerline (Exhibit 21). The reach is found in Section 16 of the USGS Newhall 7.5-minute quadrangle map at Township 4 North and Range 16 West.

Reach 110 – Hasley Canyon Channel (PD 2262)

Reach 110, Hasley Canyon Channel (PD 2262), is located within the Santa Clara River Watershed (Exhibit 22). It is a narrow channel of about ½ mile long with a relatively steep gradient. The reach is found in Sections 2 and 11 of the USGS Val Verde 7.5-minute quadrangle map at Township 4 North and Range 17 West.

1.2 PROPOSED PROJECT

1.2.1 BACKGROUND

To effectively control flood waters from the mountainous watersheds surrounding the Los Angeles Basin, the U.S. Army Corps of Engineers (USACE) and the LACFCD constructed concrete-bottom and earth-bottom channels leading from dams and debris basins located along the frontal slopes of the San Gabriel, Santa Monica, Verdugo, and Santa Susanna Mountains. Construction began in the 1930s. These channels, as a system, provide flood protection for Los Angeles County.

Channel maintenance activities have been performed regularly in LACFCD channels for over 50 years. Originally constructed by the USACE, upon completion, most of the channel facilities were transferred to the LACFCD for cyclic maintenance. The USACE's maintenance guidelines require that "debris, objectionable growth, shoals, and waste materials must not encroach on the invert. Excess materials that will not move readily with low flows must be removed. Measures must be taken to control objectionable growth by approved chemical or mechanical means" (USACE 1996).

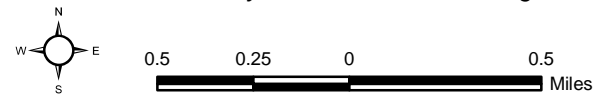
³ The Los Angeles County Department of Public Works' Road Maintenance Division (RMD) is responsible for maintenance at this soft-bottom channel reach.

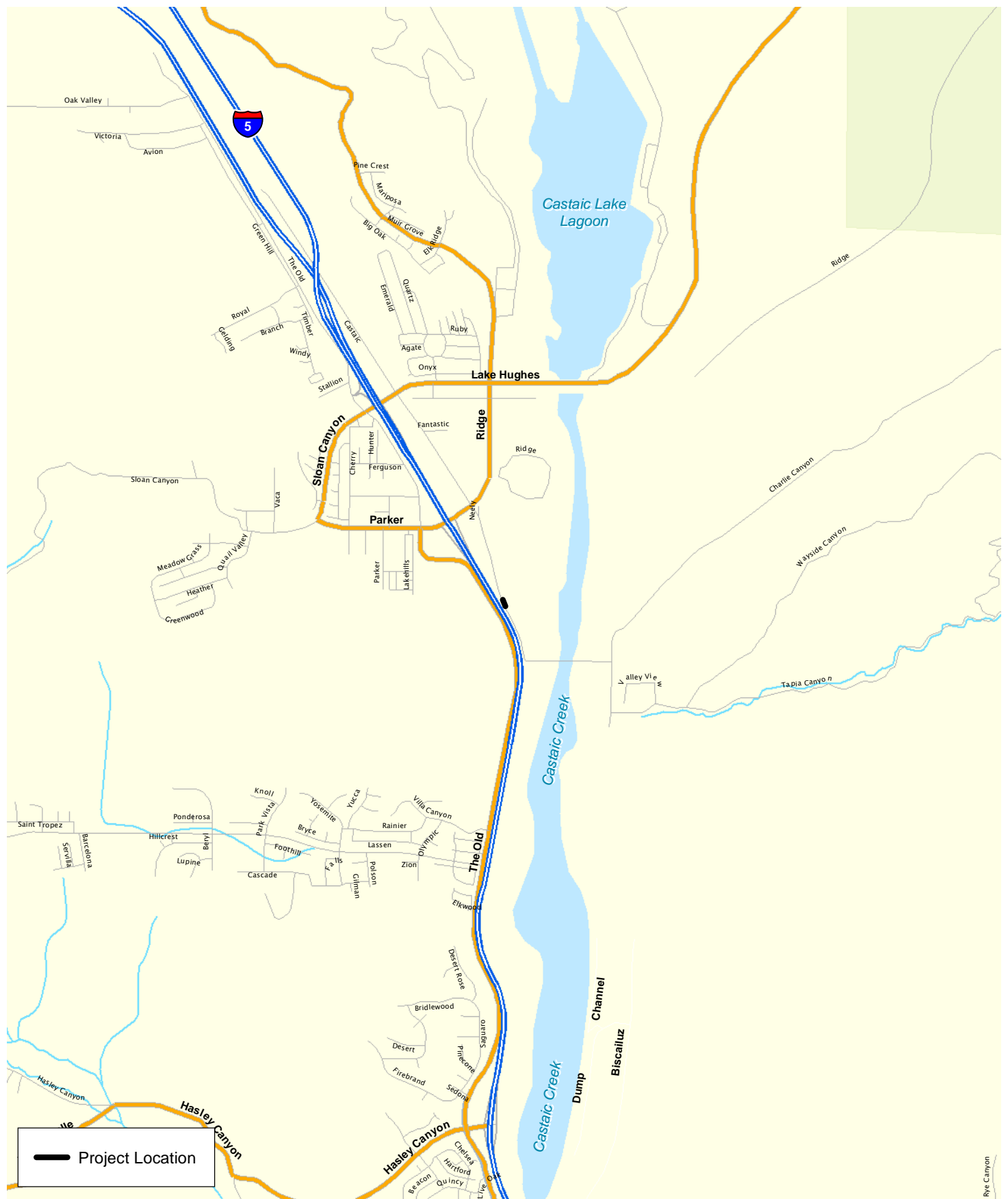
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Reach 105 - San Francisco Canyon Channel (PD 2456)
 2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

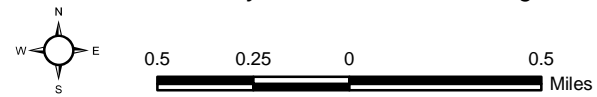
Exhibit 19





Reach 106 - Castaic Drain Outlet (RMD Channel)

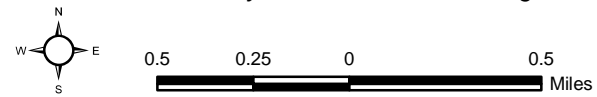
2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

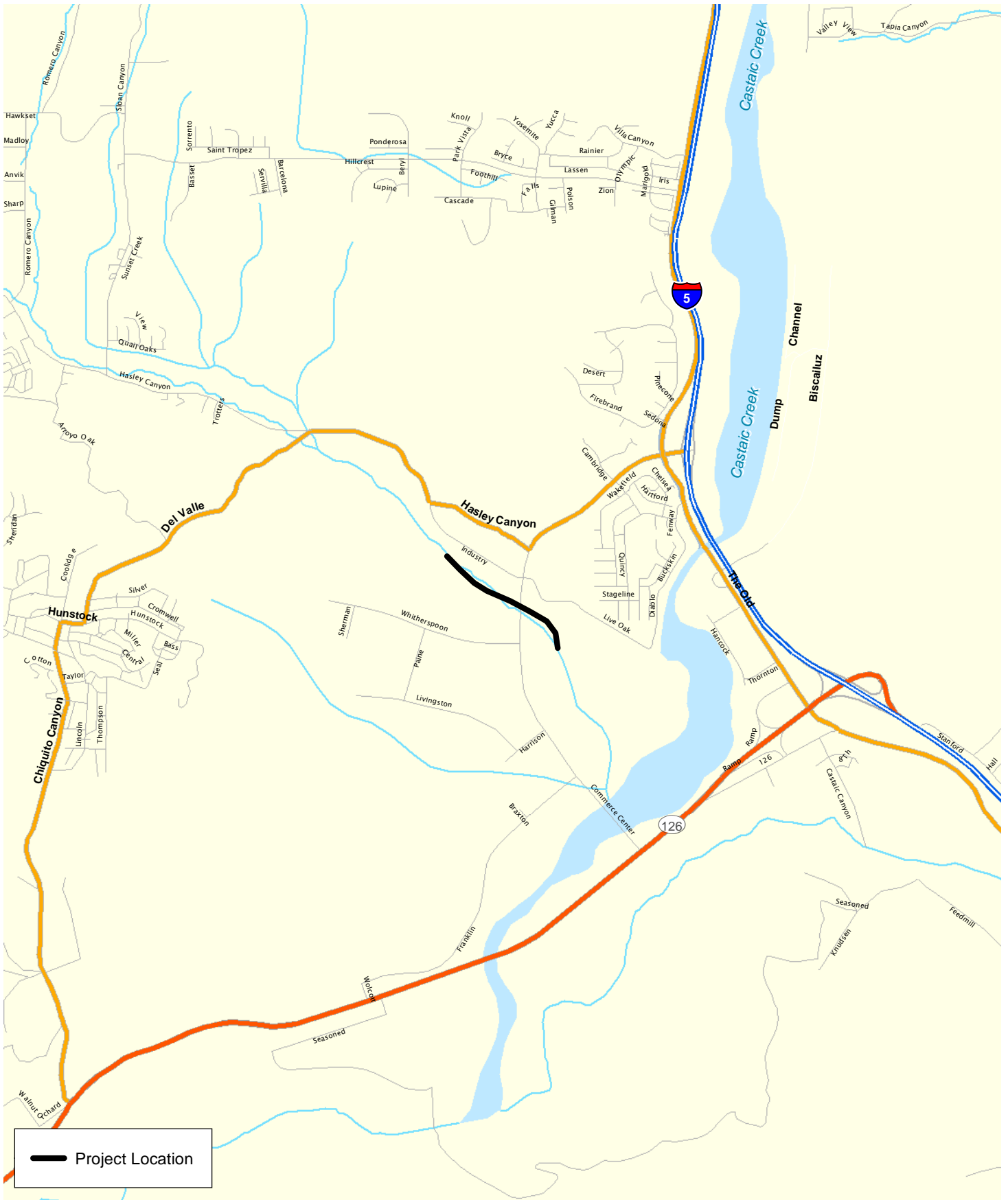


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Reach 109 – Santa Clara River – South Bank West of McBean Pkwy (MTD 1510) **Exhibit 21**
 2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

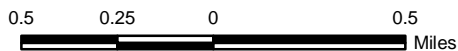




Reach 110 - Hasley Canyon Channel (PD 2262)

Exhibit 22

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



The County formerly maintained channels clear of any vegetation, as required under the *Code of Federal Regulations* (33 CFR 208.10), until the California Department of Fish and Wildlife (CDFW) began requiring the County to clear vegetation on alternating sides of the channels each year. The USACE allowed limited clearing to occur between 1993 and 1995. Anticipated heavy rains during the 1997/1998 storm season caused by El Niño conditions resulted in a statewide need to remove vegetation and sediment from soft-bottom channels to restore their flood-carrying capacity. The LACFCD obtained all necessary permits to conduct this work in the 1997/1998 storm season and has continued the ongoing maintenance as approved by the permits.

1.2.2 PROJECT DESCRIPTION

Vegetative growth in a channel system reduces channel capacity. All soft-bottom channels were designed and constructed as relatively clean, unvegetated channels. As vegetation grows more densely, the roughness of the channel increases and the velocity of flows decrease, which corresponds to a loss in the channel's carrying capacity. The vegetation also traps some of the sediments being transported by flood flows which, when deposited, further reduce channel capacity. Studies have shown that increased vegetation and sediments in the channels result in reduced flow area with a concomitant decrease in flow velocity (LACFCD 1996). A loss of carrying capacity in the channels could cause flood flows to escape the channel systems and impact adjacent properties (LACFCD 1996).

Vegetation can also affect the structural integrity of bridges during a major storm event. Vegetation slows flood flows, which creates a backwater effect and increases water surface elevations upstream. Bridges are not normally designed to withstand the forces that result from significantly increased flood water elevations. Additionally, increased flood depths upstream can result in flooding of adjacent properties and erosion of channel banks.

The LACFCD performs annual vegetation clearing in channels and minor grading to retrain channel flows consistent with the clearing limits established by the permitted maintenance plan (BonTerra Consulting 1999). This ongoing program is necessary to maintain the design capacities of the channels and to ensure the proper functioning of these facilities located within the LACFCD boundaries.

Within each reach, the LACFCD proposes to clear the same areas (and acreage) that have been cleared annually since 1997. Biological impacts to these channel reaches associated with the initial clearing of vegetation for maintenance activities were previously mitigated through maintaining and enhancing 62.7 acres of riparian habitats at the Big Tujunga Wash Mitigation Bank site (BonTerra Consulting 1999).

Channel clearing activities are performed primarily by mechanical means, using heavy equipment (e.g., trucks, bulldozers, dump trucks, and loaders), as well as other equipment (e.g., mowers) that are designed specifically for this type of work. Hand clearing or mowing is conducted in areas where mechanical equipment cannot be used or where important biological resources exist nearby. Herbicides approved by regulatory agencies are applied, as necessary, to eradicate invasive and/or non-native vegetation including, but not limited to, giant reed (*Arundo donax*) and castor bean (*Ricinus communis*).

The channel clearing activities are performed under an existing Maintenance Plan approved by the Los Angeles Regional Water Quality Control Board (RWQCB) and USACE and modified by the CDFW under the existing Streambed Alteration Agreement between CDFW and the LACFCD. BonTerra Consulting has reviewed the Maintenance Plan and has extensive knowledge of channel clearing activities in all channel reaches, having worked with the LACFCD since 1997 to provide biological monitoring of flood-control channel maintenance work.

Pre-clearing and post-clearing photos have been taken every year to document the biological resources in these channel reaches in compliance with the mitigation requirements of existing permits from the USACE, the USFWS, the Los Angeles RWQCB, and the CDFW.

1.3 **SPECIAL STATUS SPECIES BACKGROUND**

In order to comply fully with the regulatory permits issued to the LACDPW, surveys are performed for a variety of special status species at soft-bottom channel reaches where suitable or potentially suitable habitat has been identified. For example, the permits require annual pre-clearing surveys for the federally and State-listed Endangered unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) and the federally listed Threatened Santa Ana sucker (*Catostomus santaanae*). Results of these fish surveys were included with previous survey efforts in 2002 and 2003 (BonTerra Consulting 2002, 2003), but have since been reported separately to the LACDPW. This report provides the results of surveys for the arroyo toad (*Anaxyrus californicus*), least Bell's vireo (*Vireo bellii pusillus*), and southwestern willow flycatcher (*Empidonax traillii extimus*).

1.3.1 **ARROYO TOAD**

The arroyo toad was listed as a federally Endangered species by the USFWS on January 17, 1995 (CDFW 2013) and is a California Species of Special Concern (CDFW 2011). At the time of listing, the arroyo toad was one of two subspecies of the southwestern toad (*Bufo microscaphus*), but subsequent genetic studies (Gergus 1998) resulted in the separation of arroyo toad (*B. californicus*) from the Arizona toad (*B. microscaphus*). Recent research (Frost et al. 2006) placed both species in the genus *Anaxyrus*.

This is a rather uniformly warty and stocky toad with a light-colored stripe across the head that includes the eyelids. The parotid glands are oval-shaped, widely separated, and pale toward the front. The underside of the arroyo toad is usually buff-colored and unspotted, and the cranial crests are absent or weak. The typical size (snout to vent length) range of reproductive adult toads is 2 to 2.6 inches for males and 2.6 to 3.1 inches for females (Sweet 1992, 1993). Tadpoles reach an average maximum length of 1.3 inches (maximum of 1.6 inches) and are black at hatching. Soon after hatching, the tadpoles develop a tan-colored dorsum with crossbars on the tail and an opaque, white abdomen (venter) before metamorphosing (Sweet 1992).

Early descriptions of the habitat requirements for the arroyo toad are based on detailed life history studies conducted over a period of years by Sweet (1992, 1993). Much of that work was conducted in the Los Padres National Forest in Santa Barbara County. Subsequent to this work, additional studies of populations in other portions of the range have resulted in a somewhat broader habitat description (e.g., Griffin et al. 1999; Ramirez 1999, 2000, 2001, 2002a, 2002b, 2002c). It can generally be said that the arroyo toad frequents third order washes, streams, and arroyos in semiarid parts of the southwest. Stream substrates range from sands to small cobble, with sandy banks supporting mule fat (*Baccharis salicifolia*), willows (*Salix* spp.), cottonwoods (*Populus* spp.), and/or sycamores (*Platanus racemosa*). The arroyo toad breeds both within streams and in small backwater pools that form along the stream margins, usually in relatively shallow water (about four inches) with sand or gravel substrate.

Arroyo toads are primarily nocturnal, except during the breeding season when they are sometimes active during daylight hours. These toads will move extensively in upland habitats, at least seasonally. Adult males will sometimes travel 1.2 to 1.9 miles along a stream course, often becoming more sedentary once reaching a large size (Sweet 1992). Females are more sedentary, typically maintaining an area of movement less than 330 feet in diameter (Sweet 1992). Adults mostly feed on ants, particularly nocturnal ants such as trail-forming tree

ants (*Liometopum occidentale*), but will also consume other invertebrates (Sweet 1992). Tadpoles are substrate gleaners, feeding on detritus and microbial mats from just beneath the surface layer of fine sediments or within the interstices of gravel deposits (Sweet 1992).

On February 7, 2001, the USFWS published a final rule designating 182,360 acres of land in California including parts of Monterey, Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, Orange, and San Diego Counties as critical habitat for the arroyo toad (USFWS 2005a). Following the designation of critical habitat, several lawsuits were filed challenging various aspects of the designation. In response to these lawsuits, the critical habitat designation was vacated and the USFWS was instructed by the court to re-evaluate its previous position.

On April 28, 2004, the USFWS published a final rule designating 11,695 acres of critical habitat for the arroyo toad in portions of Santa Barbara, Ventura, Los Angeles, San Bernardino, and Riverside Counties (USFWS 2005a). Further lawsuits were filed that successfully challenged this final rule and resulted in another proposed rule for revised critical habitat that was published in the *Federal Register* on October 13, 2009 (USFWS 2009). The revised critical habitat final rule was released on February 9, 2011 (USFWS 2011).

Four Castaic Creek channel reaches (Reaches 86, 87, 97, and 104) are located in Unit 6, Subunit B, of this final critical habitat revision (USFWS 2011). Another surveyed channel reach (Reach 110) is located just upstream of Unit 6, Subunit B of this final critical habitat (USFWS 2011). One surveyed channel reach (Reach 82) previously located within proposed critical habitat (USFWS 2005a), is now located about 1,000 feet upstream of Unit 6, Subunit B of this final critical habitat (USFWS 2011). No other channel reaches managed by the LACFCD are located in this final critical habitat.

1.3.2 LEAST BELL'S VIREO

The least Bell's vireo was formerly a common, even locally abundant summer resident of Southern California's lowland riparian woodlands (Grinnell and Miller 1986). The substantial population decline of this avian species over the latter half of the twentieth century is attributable to the loss and degradation of riparian habitats and, perhaps more importantly, brood parasitism by the brown-headed cowbird (*Molothrus ater*). The least Bell's vireo was listed by the California Department of Fish and Game (CDFG)⁴ as State Endangered on October 2, 1980, and by the USFWS as federally Endangered on May 2, 1986 (USFWS 1986).

The Bell's vireo is a neotropical migrant that breeds in central and southwestern North America from northern Mexico to Southern California, Nevada, and Utah, east to Louisiana, and north to North Dakota, Wisconsin, and Indiana in the central U.S. (AOU 1998). The winter range of this vireo, although not well known, is believed to be the west coast of Central America from southern Sonora south to northwest Nicaragua, including the cape region of Baja California, Mexico (Brown 1993). Of the four Bell's vireo subspecies, only two breed in California: the least Bell's vireo and the Arizona Bell's vireo (*V. b. arizonae*), which occurs in the Colorado River Valley (Garrett and Dunn 1981; Rosenberg et al. 1991). Though the least Bell's vireo was formerly considered a common breeder in riparian habitats throughout the Central Valley and other low elevation river systems in California and Baja California, Mexico (Franzreb 1989), it had been eliminated from much of its historical range by the time of its listing in 1986 (Franzreb 1989; Brown 1993). Recovery efforts since its listing have included habitat protection; removal of exotic species (particularly giant reed); and trapping programs for the brown-headed cowbird (USFWS 2006). The least Bell's vireo population has increased tenfold from

⁴ Although the California Department of Fish and Game (CDFG) changed its name to the California Department of Fish and Wildlife (CDFW) effective January 1, 2013, "CDFG" is still used throughout this document for all documents published or database searches completed before January 1, 2013.

291 territories in the early 1980s to an estimated 2,968 territories 20 years later (USFWS 2006). After a decade or more of absence in Los Angeles County, the least Bell's vireo returned by the mid-1980s with a pair reported from Whittier Narrows in 1985 and 1986 (Long 1993). Least Bell's vireo numbers have continued to increase since that time, and it is now known to occur at several other locations in Los Angeles County such as the San Fernando (Van Norman) Dam; the San Gabriel River at Fish Canyon and Van Tassel Canyon; the Sepulveda Basin Wildlife Area; and the Castaic Lagoon Recreation Area (CDFG 2009). The two largest populations in the county are at Hansen Dam in the northeastern corner of the San Fernando Valley where 44 least Bell's vireo territories were present in 2009 (Griffith Wildlife Biology 2009) and on the Santa Clara River from the I-5 Freeway downstream to the Las Brisas Bridge where 56 least Bell's vireo territories were present in 2007 (Bloom Biological, Inc. 2007).

Least Bell's vireos breed primarily in riparian habitats dominated by willows with dense understory vegetation. Shrubs such as mule fat and California rose (*Rosa californica*) are often a component of the understory (Goldwasser 1981). The least Bell's vireo is often found in areas that include trees such as willow, sycamore, or cottonwood, particularly where the canopy is within or immediately adjacent to an understory layer of vegetation (Salata 1983). The least Bell's vireo generally nests in early successional stages of riparian habitats, with vireo nest sites frequently located in willows that are between four and ten years of age (RECON 1988; Franzreb 1989). The most critical factor in habitat structure is the presence of a dense understory shrub layer from approximately two feet to ten feet above ground level (Goldwasser 1981; Salata 1983; Franzreb 1989).

On February 2, 1994, the USFWS published a final critical habitat for the least Bell's vireo designating approximately 37,560 acres of land in Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, and San Diego Counties, California (USFWS 1994b). Designated critical habitat in Los Angeles County is located only in the Santa Clara River from the Golden State (I-5) Freeway west to the Ventura County line. The surveyed soft-bottom channel reaches are all located outside the critical habitat for this species.

1.3.3 SOUTHWESTERN WILLOW FLYCATCHER

The southwestern willow flycatcher was formerly a common summer resident of southern California's lowland riparian woodlands and up into mountain canyons (Garrett and Dunn 1981). By the 1970s, the southwestern willow flycatcher was considered to be absent as a breeder in Southern California (McCaskie 1975). The virtual extirpation of this species as a breeder in Southern California has been attributed to the loss and degradation of riparian habitats and brood parasitism by the brown-headed cowbird. All willow flycatchers breeding in California—which include the subspecies *E. t. brewsteri* and *E. t. adastus* in addition to the southwestern willow flycatcher—were listed by the CDFG as State Endangered on January 2, 1991. The USFWS listed the southwestern willow flycatcher as federally Endangered on February 7, 1995 (USFWS 1993).

The willow flycatcher is a neotropical migrant that breeds in the west from northern Baja California, Mexico to central British Columbia, Canada and generally east through the northern half of the United States to the Atlantic coast (AOU 1998). The willow flycatcher winters in Central America from Nayarit, Mexico (Pacific coast) and Honduras (Gulf of Mexico coast) to Panama and also to northern Colombia and northwest Venezuela (Sedgwick 2000). Depending on the authority, there are four or five recognized subspecies of willow flycatcher (Sedgwick 2000). The breeding range of the southwestern willow flycatcher includes Southern California, Arizona, New Mexico, western Texas, and extreme southern parts of Nevada and Utah (USFWS 1993).

The California population of southwestern willow flycatchers breeds along the coast north of Baja California to the Santa Ynez River, Santa Barbara County, and north in the interior to about Independence, Inyo County (Unitt 1987). Besides the Colorado River, there are five drainages in California that support major breeding populations of southwestern willow flycatcher: the South Fork of the Kern River in Kern County; the Santa Margarita River on Camp Pendleton and the San Luis Rey River in San Diego County; the Santa Ana River in Riverside and San Bernardino Counties; and the Owen's River in Inyo and Mono Counties (Durst et al. 2007). In the 1970s, the southwestern willow flycatcher was believed to have been extirpated from coastal Southern California (Remsen 1978), but small numbers were found during the late 1970s and early 1980s in San Diego County (Unitt 1984). An early population estimate for the southwestern willow flycatcher in California was 70 pairs (USFWS 1993). More recent population estimates are higher—such as 200 territories in 2004 and 190 territories in 2006 (Durst et al. 2005; Durst et al. 2007)—and are more likely the result of increased survey effort rather than a population increase (Durst et al. 2007).

The southwestern willow flycatcher breeds in willow-dominated riparian habitats that are similar to least Bell's vireo nesting habitats. The southwestern willow flycatcher differs from least Bell's vireo in that it shows a stronger dependency on willow thickets for all its requirements (Grinnell and Miller 1986). In addition, the southwestern willow flycatcher appears to have a preference for sites with surface water in the vicinity, such as along streams, on the margins of a pond or lake, and at wet mountain meadows (Grinnell and Miller 1986; Flett and Sanders 1987; Harris et al. 1987); in Arizona, the southwestern willow flycatcher invariably nests near surface water (Phillips et al. 1964). Recently, the southwestern willow flycatcher has adapted to introduced vegetation present in riparian vegetation types, such as tamarisk (*Tamarix* sp.) and Russian olive (*Elaeagnus angustifolia*) (USFWS 1993).

The willow flycatcher is a common migrant in the interior of California and is a rare to uncommon migrant along the coastal slope, with most birds moving through Southern California between May 15 and June 20 during the spring season (Garrett and Dunn 1981; Unitt 1987). The spring southwestern willow flycatcher migration is earlier than that of the northern subspecies (Unitt 1987; USFWS 1993). As a result, surveys for nesting southwestern willow flycatcher are complicated by the presence of more abundant subspecies migrating through its range during its breeding season.

On October 19, 2005, the USFWS published a Final Rule designating critical habitat for the southwestern willow flycatcher (USFWS 2005). This final rule designated 120,824 acres in Arizona, California, Nevada, New Mexico, and Utah as critical habitat. Of that, 17,212 acres were designated as Critical habitat in Kern, Santa Barbara, San Bernardino, and San Diego Counties, California. Following lawsuits, the USFWS recently issued a revised Final Rule on January 3, 2013. This Final Rule designates critical habitat that covers 2,090 stream miles in California, Nevada, Utah, Colorado, Arizona, and New Mexico (USFWS 2013). This Final Rule uses a slightly different methodology to designate critical habitat. For example, it includes areas that are considered essential for the recovery of the species even if they were not occupied at the time of the species' listing. These new stream segments include Castaic Creek (3.0 miles), Little Tujunga (1.4 miles), Big Tujunga (3.0 miles), and the San Gabriel River (8.8 miles) (USFWS 2013). Three Castaic Creek channel reaches (Reaches 87, 97, and 104), four Santa Clara River channel reaches (Reaches 71, 80, 82, and 109), and one San Gabriel River channel reach (Reach 39) are located within this proposed revised critical habitat.

SECTION 2.0 SURVEY METHODOLOGIES

For each species surveyed, the surveys were conducted according to USFWS protocols. The biologists conducted the surveys at the most appropriate time of day to ensure maximum opportunity to observe the species.

2.1 SPECIAL STATUS AMPHIBIAN SPECIES

2.1.1 ARROYO TOAD

The initial studies conducted in 2002 included a background literature review and habitat assessment for each of the soft-bottom channel reaches that represented suitable arroyo toad breeding and/or upland habitat. The literature review included the documentation of relevant literature regarding the presence of the arroyo toad within and/or adjacent to each reach, including areas both upstream and downstream. This included review of *Federal Register* listings, protocols, and species data provided by the USFWS, the CDFW's California Natural Diversity Database (CNDDDB); consultation with qualified experts familiar with the distribution and natural history of the arroyo toad; and review of unpublished biological resource letter reports and assessments conducted within the region.

Focused surveys for the arroyo toad were conducted at 11 channel reaches in 2013: Castaic Creek Reaches 86, 87, and 97, and Reach 104 in the Castaic Creek Watershed; San Francisquito Canyon Channel Reach 105; the northern part of the South Fork Santa Clara River Reach 75 (i.e., from Magic Mountain Parkway upstream to the Via Princessa Bridge) and the South Fork Santa Clara River Reach 79; Reach 80 at the confluence of the Santa Clara and South Fork Santa Clara Rivers; and Santa Clara River Reaches 71, 82, and 109.

The surveys followed the guidelines presented in the USFWS' *Survey Protocol for the Arroyo Toad* (1999b). Each channel reach was surveyed on foot to characterize aquatic (breeding) and upland habitat (refugia) types and to document any characteristic sign (clutches, larvae, juveniles, adults). Also, in accordance with the USFWS protocol, areas within 0.6 mile of documented arroyo toad sites (previously documented by the presence of eggs, larvae, juveniles, or adults) that have suitable habitat were presumed to have arroyo toads (USFWS 1999b). In addition to following the guidelines outlined above, all field surveys adhered to recommended equipment decontamination procedures outlined in Appendix B of the California red-legged frog survey guidelines (USFWS 2005b).

Six surveys following USFWS recommended protocol were conducted at each of the channel reaches. These surveys included both a diurnal and nocturnal component. The initial (diurnal) surveys included walking each reach in an effort to assess and document the suitability of breeding and upland habitat for the arroyo toad. These initial surveys also focused on locating any areas of inundation that may have represented suitable breeding pools (egg clutches and/or tadpoles). These surveys identified portions within each reach with the highest probability to support the arroyo toad. Following the initial surveys, areas identified during the daytime surveys were visited again at night in order to detect active toads. The same routes were covered repeatedly throughout the evening to ensure that no individuals went undetected. Survey data is presented in Table 1. A list of all wildlife species encountered during these surveys is included in Appendix C.

**TABLE 1
ARROYO TOAD SURVEY DATA**

| Survey Number | Survey Date | Reaches Surveyed | Surveying Biologists | Survey Conditions | | | |
|---------------|-------------|------------------|------------------------------|-------------------|-----------------------|------------|-------------------------|
| | | | | Temperature (°F) | Relative Humidity (%) | Wind (mph) | Moon Phase |
| 1a | 3/26/2013 | 86, 87, 97, 104 | Sam Stewart Jonas Winbolt | 50–77 | 30–80 | 0–10 | Waxing gibbous |
| 1b | 3/27/2013 | 75, 79, 80, 105 | Sam Stewart Jonas Winbolt | 50–74 | 45–82 | 0–7 | Full |
| 1c | 3/28/2013 | 71, 82, 109 | Sam Stewart Jason Mintzer | 50–72 | 54–84 | 0–5 | Waning gibbous |
| 2a | 4/2/2013 | 86, 87, 97, 104 | Sam Stewart Jason Mintzer | 51–66 | 30–90 | 0–5 | Waning crescent |
| 2b | 4/3/2013 | 75, 79, 80, 105 | Sam Stewart Sarah Thomas | 55–74 | 39–71 | 0–7 | Waning crescent |
| 2c | 4/4/2013 | 71, 82, 109 | Sam Stewart Jason Mintzer | 60–80 | 30–72 | 0–6 | Waning crescent |
| 3a | 4/15/2013 | 86, 87, 97, 104 | Sam Stewart Jason Mintzer | 58–81 | 30–71 | 0–7 | Waxing crescent |
| 3b | 4/17/2013 | 71, 82, 109 | Sam Stewart Jason Mintzer | 50–69 | 10–20 | 0–9 | Waxing crescent |
| 3c | 4/18/2013 | 75, 79, 80, 105 | Sam Stewart Jason Mintzer | 50–76 | 10–40 | 0–4 | Waxing crescent |
| 4a | 5/1/2013 | 86, 87, 97, 104 | Sam Stewart Jason Mintzer | 60–88 | 10–15 | 0–11 | 3 rd quarter |
| 4b | 5/2/2013 | 75, 79, 80, 105 | Sam Stewart Jason Mintzer | 57–86 | 10–14 | 0–15 | Waning crescent |
| 4c | 5/3/2013 | 71, 82, 109 | Sam Stewart Jason Mintzer | 57–97 | 10–40 | 0–8 | Waning crescent |
| 5a | 5/16/2013 | 71, 82, 109 | Sam Stewart Jason Mintzer | 57–75 | 60–80 | 0–7 | Waxing crescent |
| 5b | 5/23/2013 | 86, 87, 97, 104 | Sam Stewart Jason Mintzer | 54–73 | 45–60 | 0–13 | Waxing gibbous |
| 5c | 5/28/2013 | 75, 79, 80, 105 | Sam Stewart Jonas Winbolt | 68–80 | 35–45 | 0–15 | Waning gibbous |
| 6a | 6/18/2013 | 86, 87, 97, 104 | Sam Stewart Jason Mintzer | 64–88 | 35–65 | 0–5 | Waxing gibbous |
| 6b | 6/19/2013 | 75, 79, 80, 105 | Sam Stewart Jason Mintzer | 66–88 | 12–25 | 0–10 | Waxing gibbous |
| 6c | 6/20/2013 | 71, 82, 109 | Sam Stewart Jason Mintzer | 75–88 | 20–38 | 0–8 | Waxing gibbous |

°F: degrees Fahrenheit; mph: miles per hour.

2.2 SPECIAL STATUS BIRD SPECIES

The initial literature review in 2002 included all relevant and available documentation on the presence of the least Bell's vireo and southwestern willow flycatcher in Los Angeles County. This included review of *Federal Register* listings, protocols, and species data provided by the USFWS; review of the CDFW's CNDDDB; consultation with qualified experts familiar with the distribution and natural history of the least Bell's vireo and southwestern willow flycatcher; and review of unpublished biological resource letter reports and assessments.

Based on the results of prior BonTerra Consulting surveys (2011 focused surveys and annual monitoring surveys) of the channel reaches, the 2013 focused surveys for the least Bell's vireo and southwestern willow flycatcher were conducted at a total of 21 channel reaches where they have potential to occur: 3 channel reaches in the Los Angeles River/San Pedro Bay Area (Reaches 12, 14, and 27); 1 channel reach in the Malibu Creek Watershed (Reach 28); 4 channel reaches in the San Gabriel River (Reaches 39, 40b, 43a, and 43b); and 13 channel reaches in the Santa Clara River and Castaic Creek drainages (Reaches 71, 75, 79, 80, 82, 87, 97, 103, 104, 105, 106, 109, and 110). The channel reaches were surveyed by BonTerra Consulting Biologists Brian Daniels (USFWS Recovery Permit No. 821401-4), Lindsay Messett, Amber Oneal Heredia (USFWS Recovery Permit No. 148554-2), and Steve Morris as well as Consulting Biologist James Pike (USFWS Recovery Permit No. 832946-4). Surveys followed the USFWS protocol for both species; surveys for southwestern willow flycatcher were conducted by permitted individuals.

The USFWS survey protocol for southwestern willow flycatcher was updated in June 2010 (Sogge et al. 2010). The changes affected the timing of surveys, but not the number of surveys or the method of conducting each survey. A minimum of five surveys must be performed for the southwestern willow flycatcher to determine absence of that species from a project site. The five surveys must be performed within three specified time periods at least five days apart. The first survey must be conducted between May 15 and May 31; two surveys are required in the second survey window from June 1 to June 24; and two surveys need to be conducted between June 25 and July 17. The survey protocol for least Bell's vireo remains the same with a minimum of eight surveys being conducted at least ten days apart between April 10 and July 31. Surveys for the least Bell's vireo and southwestern willow flycatcher can be performed simultaneously because of their similar habitat requirements.

The survey area consisted of all riparian habitats in each reach. The riparian habitat was systematically surveyed by walking slowly and methodically along two transects (downstream then upstream or the reverse) with some variance depending on streambed width. Recorded vocalizations of southwestern willow flycatcher were used to elicit a response from any potentially territorial southwestern willow flycatcher; recorded vocalizations of least Bell's vireo were not used according to the protocol for this species. If no southwestern willow flycatchers were detected after the initial playing of the vocalization, the recording was usually replayed at least once. Any observations of willow flycatcher (all subspecies) and least Bell's vireo, including any pertinent behavior, were recorded and their locations mapped in the field. It should be noted that all subspecies of the willow flycatcher breeding in California are listed as State Endangered species; however, only breeding locations are protected.

The surveys were conducted under optimal weather conditions and during the early morning hours when bird activity is at its peak. Numbers were recorded for all bird species detected during the surveys, including notable observations of any special status species or other birds such as the brown-headed cowbird. Survey data is presented in Table 2. Daily tallies of all bird species recorded during these surveys are included in Appendix B.

**TABLE 2
SPECIAL STATUS BIRD SURVEY DATA**

| Reaches Surveyed | Survey Dates | Surveying Biologist |
|------------------|--------------|---------------------|
| 12, 14, 39 | 4/10/2013 | Steve Morris |
| | 4/20/2013 | |
| | 4/30/2013 | |
| | 5/10/13 | |
| | 5/23/2013 | Brian Daniels |
| | 6/10/2013 | |
| | 6/17/2013 | |
| | 6/25/2013 | |
| | 7/5/2013 | |
| 27, 28 | 4/15/2013 | Steve Morris |
| | 4/25/2013 | |
| | 5/5/2013 | |
| | 5/15/2013 | |
| | 5/29/2013 | Brian Daniels |
| | 6/12/2013 | |
| | 6/21/2013 | |
| | 6/28/2013 | |
| 7/11/2013 | | |
| 40b, 43a | 4/10/2013 | James Pike |
| | 4/20/2013 | |
| | 5/1/2013 | |
| | 5/11/2013 | |
| | 5/22/2013 | |
| | 6/1/2013 | |
| | 6/14/2013 | |
| | 6/28/2013 | |
| | 7/12/2013 | |
| 71, 75, 79, 80 | 4/11/2013 | James Pike |
| | 4/21/2013 | |
| | 5/3/2013 | |
| | 5/12/2013 | |
| | 5/23/2013 | |
| | 6/2/2013 | |
| | 6/16/2013 | |
| | 6/30/2013 | |
| | 7/13/2013 | |
| 82, 105, 109 | 4/10/2013 | Lindsay Messett |
| | 4/23/2013 | |
| | 5/3/2013 | |
| | 5/13/2013 | |
| | 5/24/2013 | Brian Daniels |
| | 6/11/2013 | |
| | 6/18/2013 | |
| | 6/26/2013 | |
| | 7/9/2013 | |

**TABLE 2
SPECIAL STATUS BIRD SURVEY DATA**

| Reaches Surveyed | Survey Dates | Surveying Biologist |
|------------------------|--------------|---------------------|
| 103, 110 | 4/11/2013 | Lindsay Messett |
| | 4/24/2013 | |
| | 5/7/2013 | |
| | 5/17/2013 | |
| | 5/30/2013 | Brian Daniels |
| | 6/13/2013 | |
| | 6/20/2013 | |
| | 6/27/2013 | |
| 7/10/2013 | | |
| 87, 97 104, 106 | 4/16/2013 | Lindsay Messett |
| | 4/29/2013 | |
| | 5/9/2013 | |
| | 5/22/2013 | Amber Oneal Heredia |
| | 6/7/2013 | |
| | 6/18/2013 | |
| | 7/2/2013 | |
| | 7/12/2013 | |

SECTION 3.0 SURVEY RESULTS

The following section presents the results of the 2013 focused surveys conducted within the survey areas described above in Section 1.1.2. No arroyo toads were observed during these surveys. Least Bell's vireo territories were established in Reaches 14, 27, 39, 40b, and 43a these surveys (see Table ES-1). A migrant male least Bell's vireo was observed on only one survey date (April 11, 2013) in Reach 80. Migrant willow flycatchers were observed in four channel reaches (Reaches 40b, 82, 105, and 109), but no southwestern willow flycatcher territories were established during these 2013 surveys. The details of these observations are provided below and grouped by watershed, including Los Angeles River Watershed/San Pedro Bay and the Santa Clara River Watershed. Table ES-1 in the Executive Summary at the beginning of the report summarizes the 2013 survey results. Los Angeles River Watershed/San Pedro Bay

3.1.1 REACH 14 – MAY CHANNEL (MAIN CHANNEL OUTLET INTO PACOIMA CANYON)

Least Bell's Vireo

Two least Bell's vireo territories were established in Reach 14 during these surveys (Exhibits 23 and 24). The solitary (unpaired) male (shown as LBV1 on Exhibits 23 and 24) occupied both the main channel outlet on the west side of Pacoima Wash as well as the northernmost drainage on the east side of Pacoima Wash from April 10 to May 23, but not thereafter. This solitary male interacted with a silent LBV, presumed to be a female, on May 23, but appeared to remain unpaired on that date. It is unknown what happened to this male since he was no longer present in the survey area after May 23. The pair (shown as LBV2 on Exhibit 23) constructed a nest in the willows of the southernmost drainage on east side of Pacoima Wash and was observed brooding and feeding fledglings on June 25 (Exhibit A-1). At least two fledglings were present in this territory on July 5.

3.1.2 REACH 27 – WILMINGTON DRAIN

Least Bell's Vireo

One least Bell's vireo territory was established in Reach 27 during these surveys. This territory consisted of a singing male that was first detected on April 25. On April 25, this male wandered upstream and downstream of Lomita Boulevard, but thereafter remained upstream of Lomita Boulevard. This solitary male least Bell's vireo stayed unpaired and remained on territory through at least July 11 (see Exhibits 25 and 26).

3.2 SAN GABRIEL RIVER AREA

3.2.1 REACH 39 – BEATTY CHANNEL OUTLET AT SAN GABRIEL RIVER (25+99.00+50')

Least Bell's Vireo

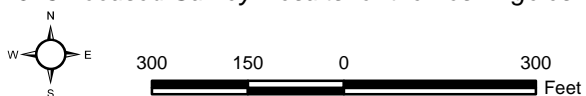
Two least Bell's vireo territories were established in Reach 39 during these surveys (Exhibits 27 and 28). The territory in the southern part of the survey area next to the pedestrian bridge was paired with a female from April 10 to at least April 30 (shown as LBV1 on Exhibits 27 and 28). This pair occupied the willow clump at the west end of the pedestrian bridge that has supported nesting least Bell's vireo since 2007. The least Bell's vireo territory in the northeastern part of survey area (shown as LBV2 on Exhibits 27 and 28) was solitary (unpaired) from April 10 to May 10, but was found to be paired during the May 23 survey. The pair was observed nest building on May 23; the female was color banded with a combination that showed it was banded

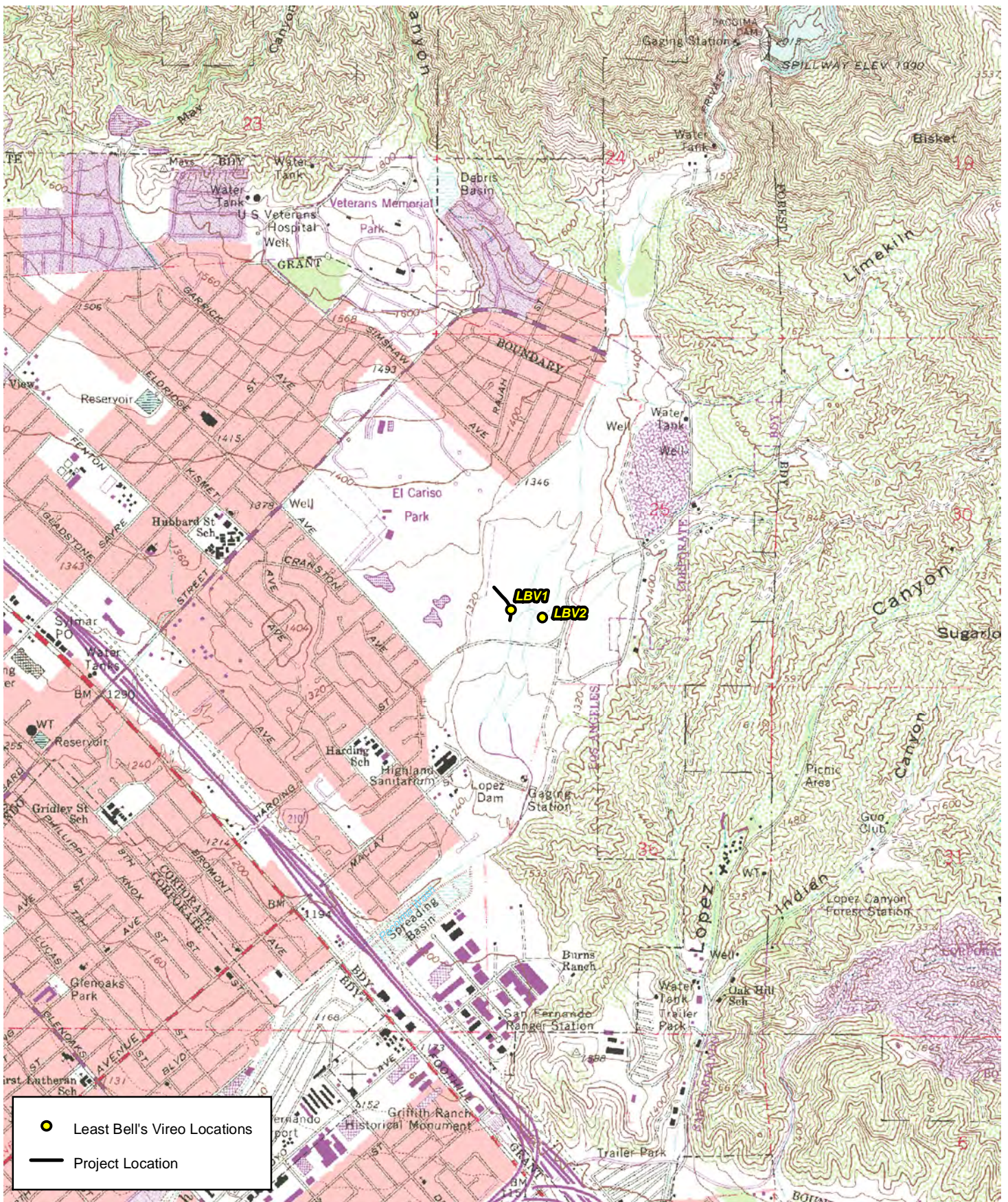


Reach 14 Least Bell's Vireo Locations (Aerial)

Exhibit 23

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



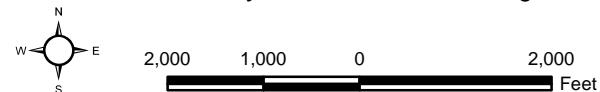


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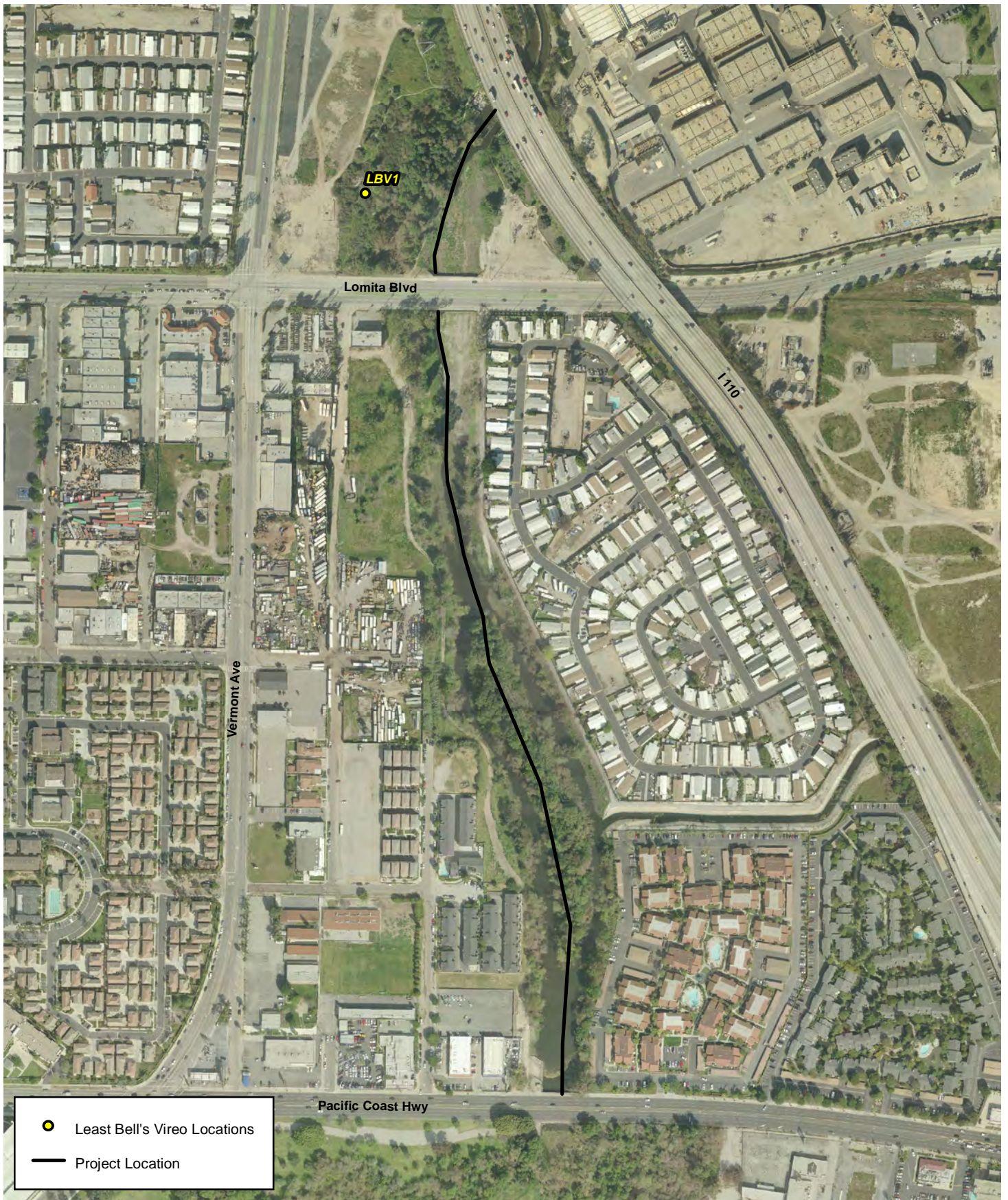
Reach 14 Least Bell's Vireo Locations (USGS Quad)

Exhibit 24

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



Bonterra
CONSULTING

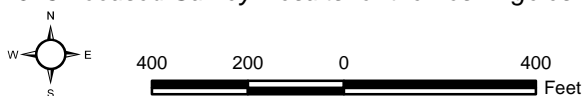


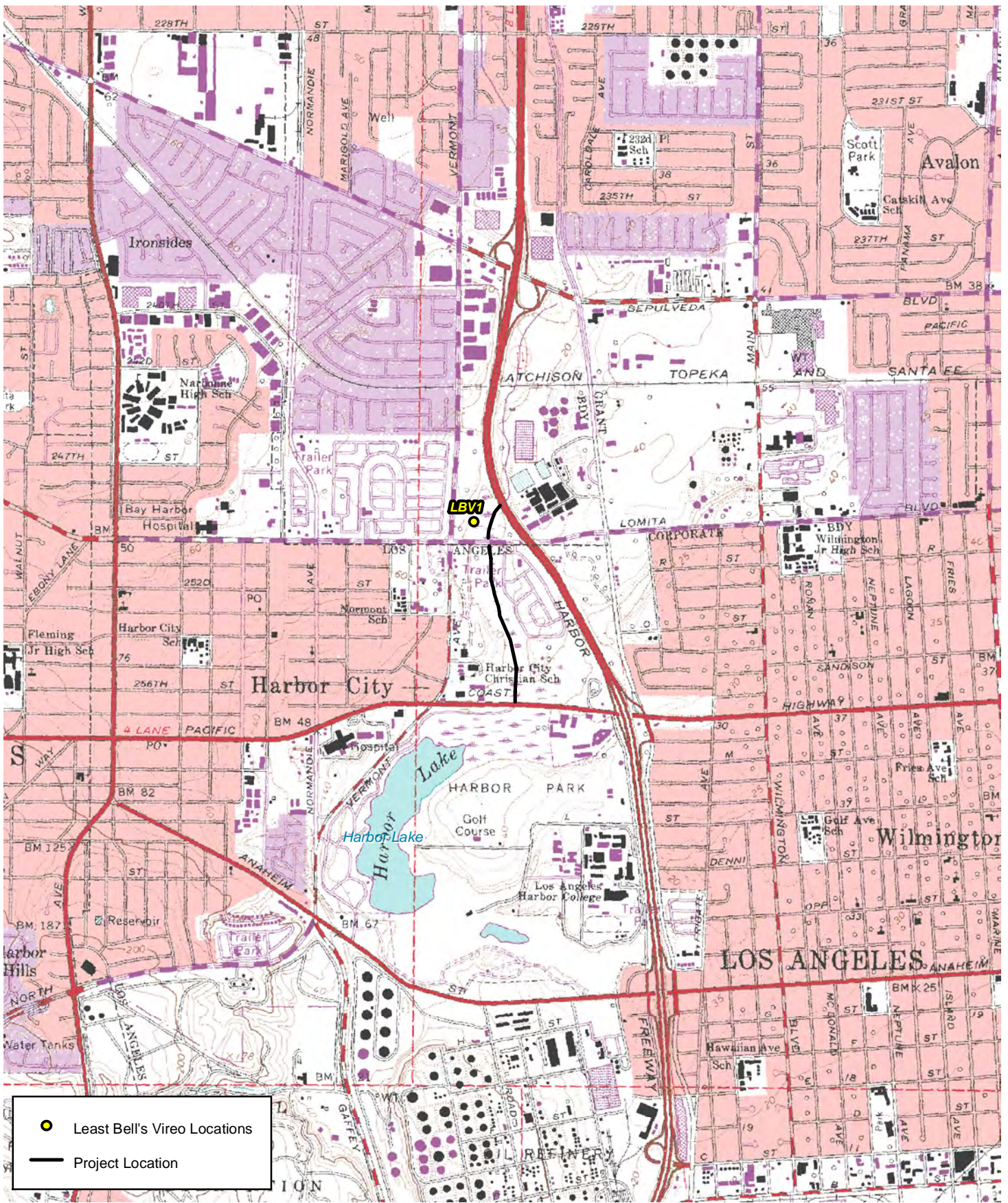
- Least Bell's Vireo Locations
- Project Location

Reach 27 Least Bell's Vireo Location (Aerial)

Exhibit 25

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



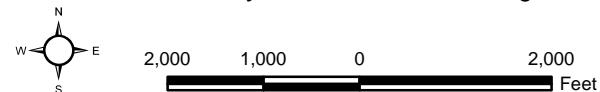


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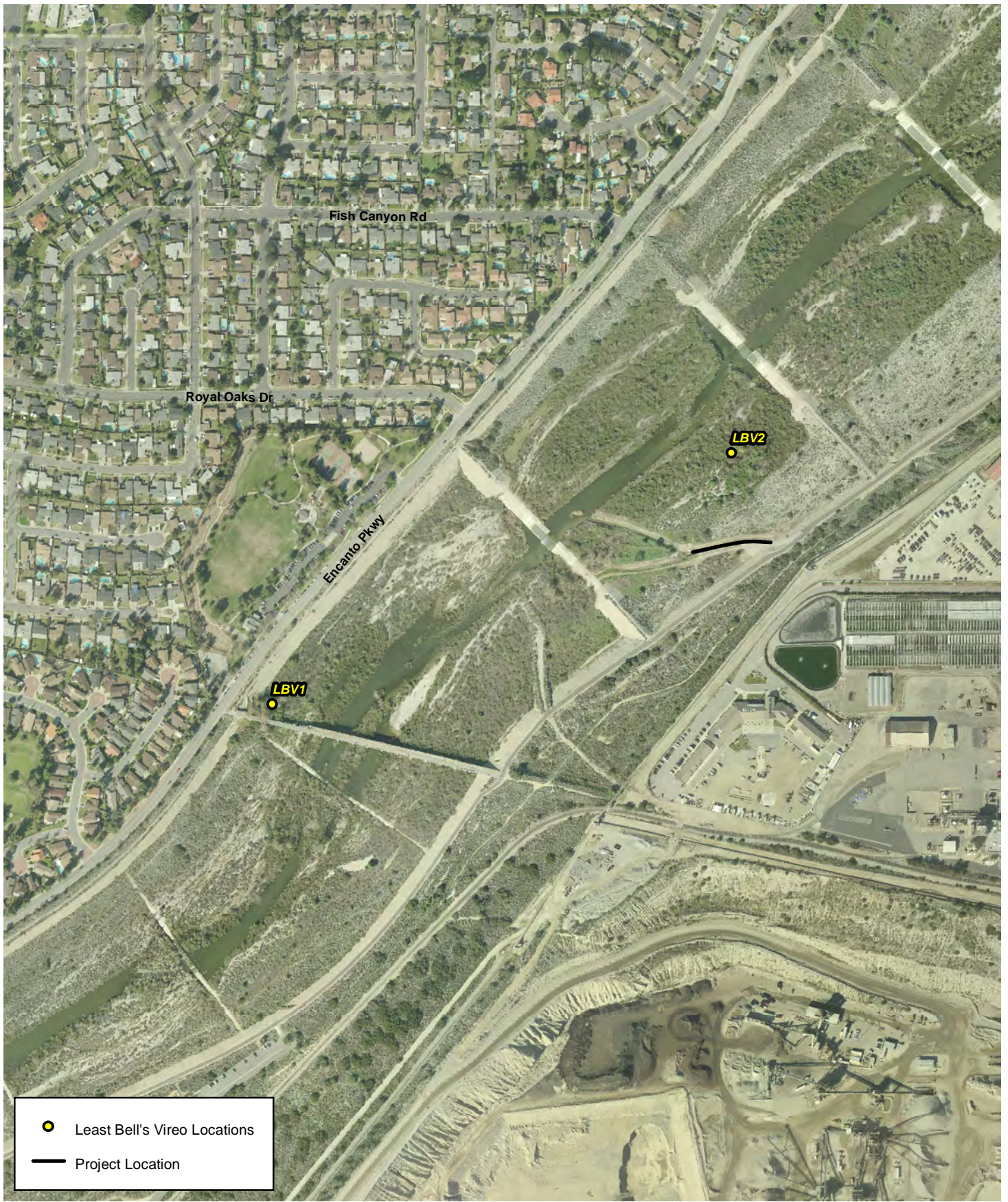
Reach 27 Least Bell's Vireo Location (USGS Quad)

Exhibit 26

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



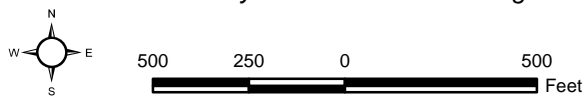
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Reach 39 Least Bell's Vireo Locations (Aerial)

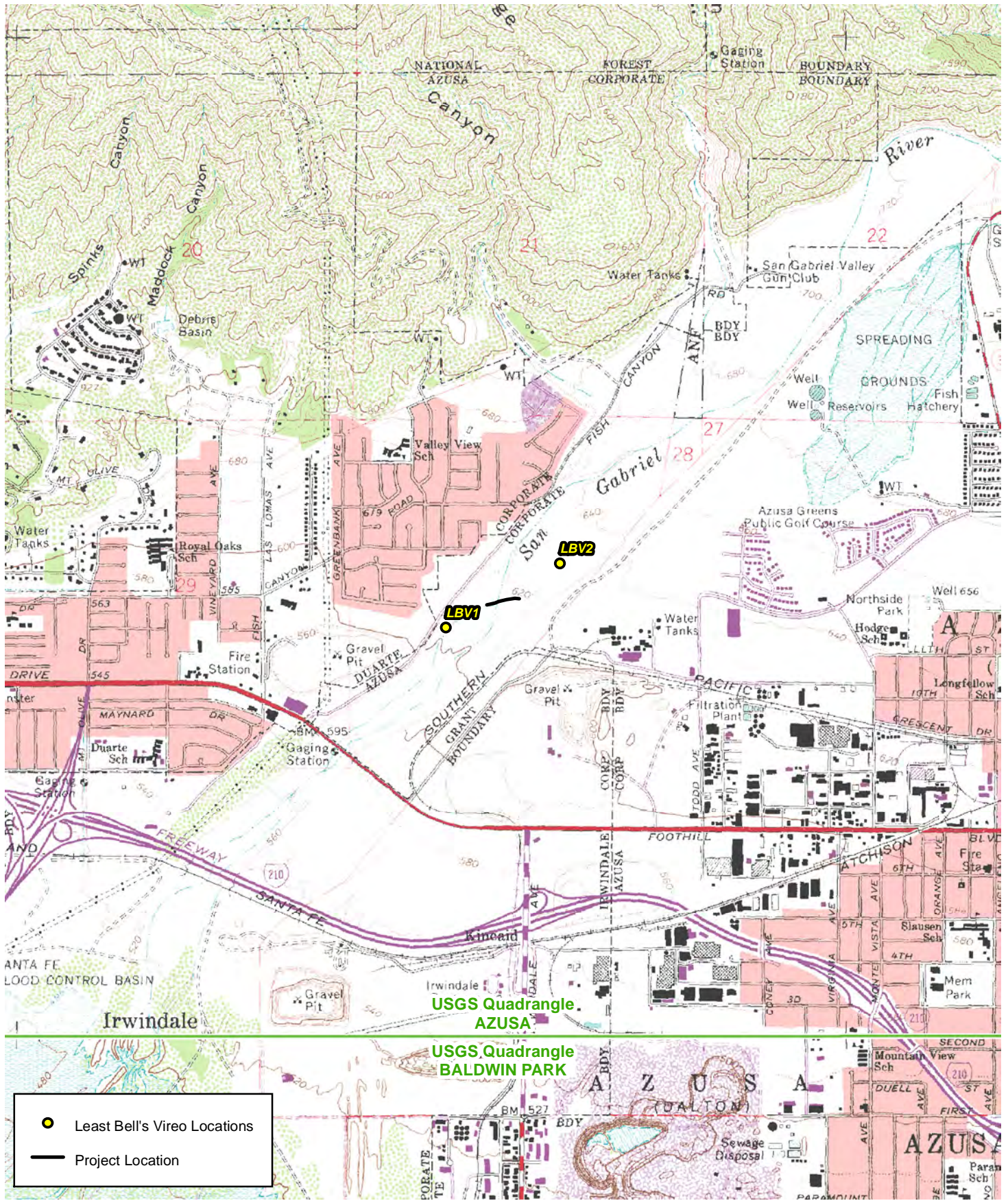
Exhibit 27

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



Bonterra
CONSULTING

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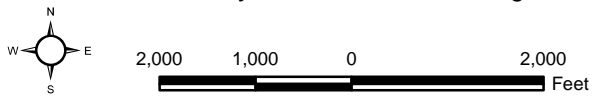


Least Bell's Vireo Locations
 Project Location

Reach 39 Least Bell's Vireo Locations (USGS Quad)

Exhibit 28

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



on its wintering grounds in October 2012 near San Jose del Cabo at the southern tip of the Baja California peninsula (Exhibit A-1). The pair at the pedestrian bridge was not detected on May 10 or thereafter. On May 23, a singing male presumed to be the male from the pedestrian bridge pair was at the Beatty channel outlet and engaged in counter-singing with the male least Bell's vireo with color banded female. Only the male with the color-banded female was detected on the June 10 survey, but presumably the same male least Bell's vireo was present at the Beatty channel outlet and again engaged in counter-singing with the paired male during the June 17 survey. Only the male least Bell's vireo (LBV2) was detected during the June 25 and July 5 surveys; the outcome of nesting for this pair was not determined.

3.2.2 REACH 40B – SAN GABRIEL RIVER – SANTA MONICA (I-10) FREEWAY TO THIENES AVENUE

Least Bell's Vireo

Five least Bell's vireo territories were established in Reach 40b during these surveys (Exhibits 29 and 30). The first least Bell's vireo territory (LBV1) consisted of a pair first detected on April 10. This pair had a nest in a narrow-leaved willow that produced four fledglings on June 14. The second least Bell's vireo territory (LBV2) was a pair that was first detected on April 10 and which fledged three young from a nest in narrow-leaved willow in early May. This pair built a second nest in narrow-leaved willow that contained three eggs on July 12. The third territory (LBV3) consisted of a pair that was first detected on April 10 and which built a nest in narrow-leaved willow that produced four fledglings in early May. They built a second nest in mule fat that produced four more fledglings in late June. The least Bell's vireo territory (LBV4) just upstream of the first drop structure on Exhibits 29 and 30 was a solitary male that was first detected on April 10 and stayed unpaired through the season. The fifth least Bell's vireo territory (LBV5) consisted of a pair with the male first detected on April 20 and the female on May 1. The nesting outcome of this pair was not determined. Two transient male least Bell's vireos were also detected during these surveys. One transient or wandering male was detected singing on April 20 opposite the end of Thienes Avenue at the confluence of San Jose Creek and the San Gabriel River (11S 0405196 3766823). Presumably this same male was detected in the same general area on May 1, but not again. The second transient male was detected on June 28 upstream of the least Bell's vireo pair (LBV5) closest to the second drop structure upstream from confluence with San Jose Creek.

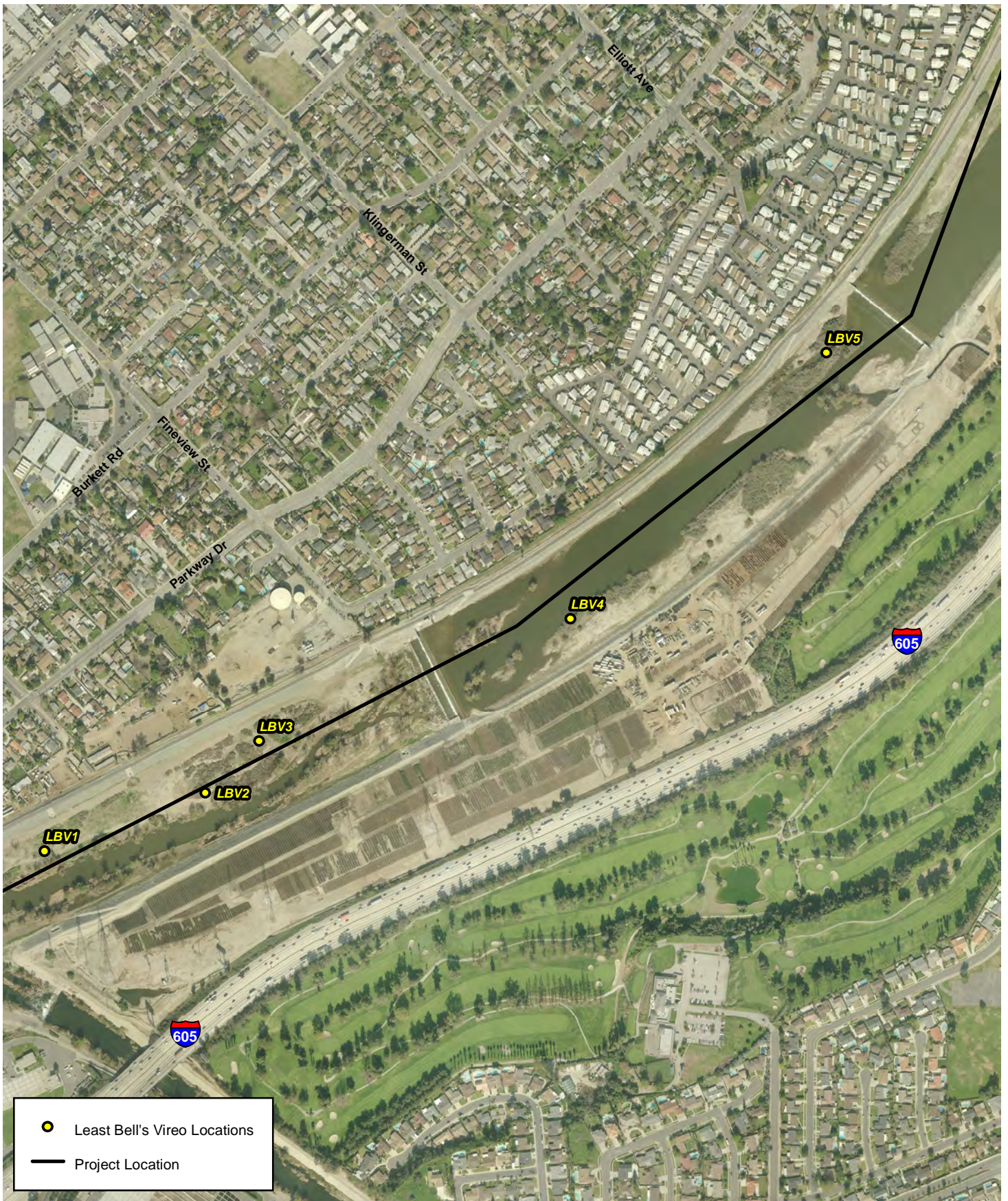
Southwestern Willow Flycatcher

A migrant willow flycatcher was observed in a dry narrow-leaved willow "island" (11S 0406416, 3767690) on June 1. This willow flycatcher was unresponsive to playback of pre-recorded vocalizations.

3.2.3 REACH 43A – SAN GABRIEL RIVER – UPPER

Least Bell's Vireo

Three least Bell's vireo territories were established in Reach 43a during these surveys (Exhibits 31 and 32). The first least Bell's vireo territory (LBV1) consisted of a male first detected on April 10 and a female first detected on May 1. This pair produced two nests, both in mule fat, that each had three eggs. Both nests, however, were depredated. The second least Bell's vireo territory (LBV2) consisted of a male first detected on April 10 followed by the female on April 20; one fledgling was present on May 22 with this pair. The third least Bell's vireo territory (LBV3) consisted of a solitary male that was first detected on April 10 and which stayed unpaired through the season. One transient or wandering male was detected singing on May 22 (11S 0402050, 3764336), but not thereafter.

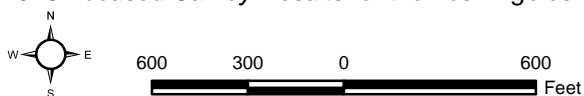


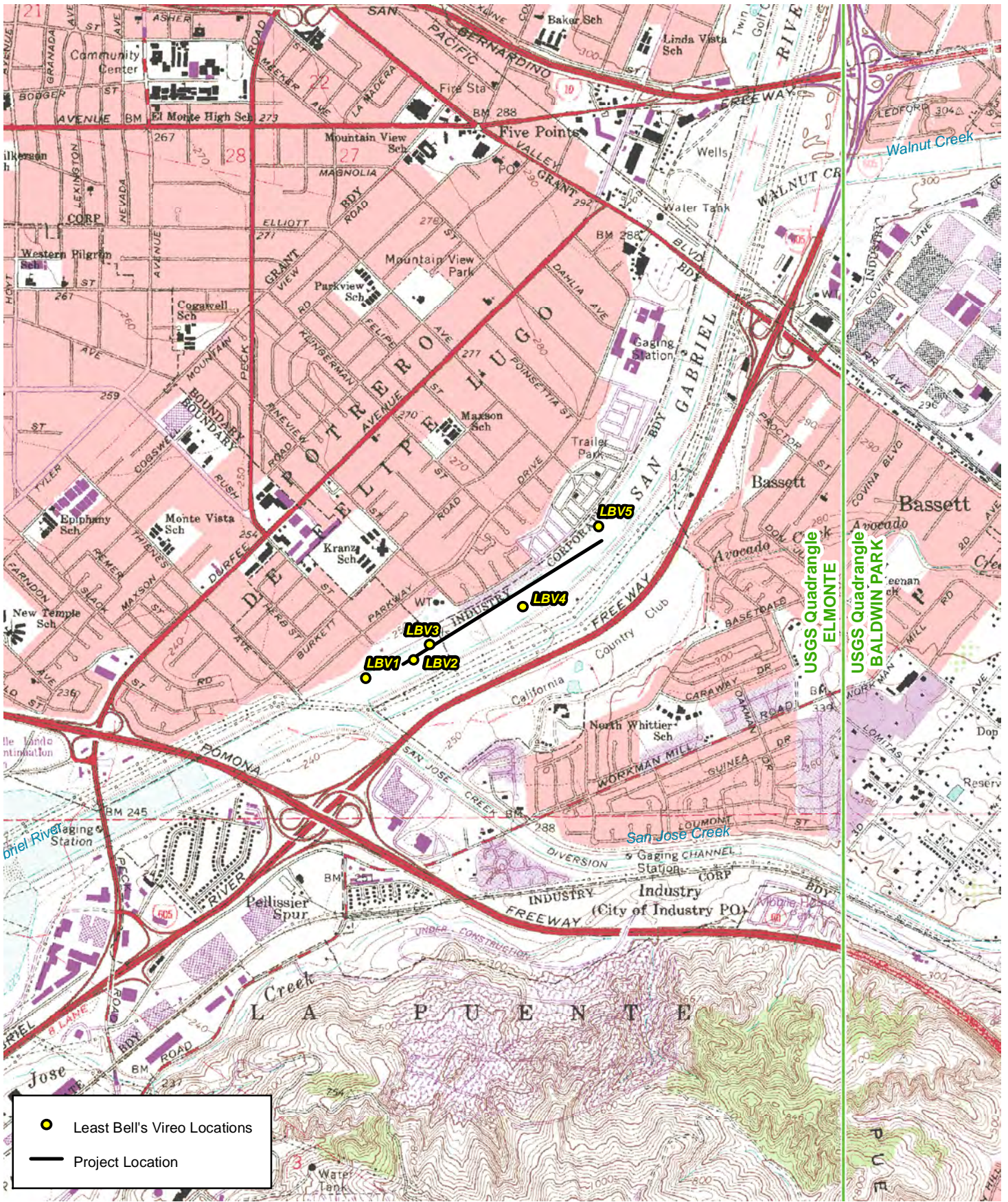
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Reach 40b Least Bell's Vireo Locations (Aerial)

Exhibit 29

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



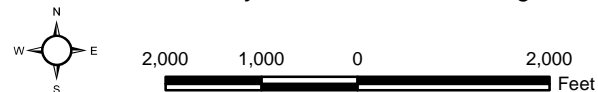


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Reach 40b Least Bell's Vireo Locations (USGS Quad)

Exhibit 30

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



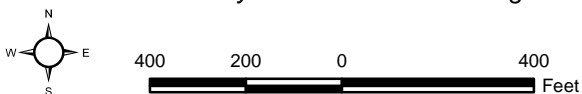


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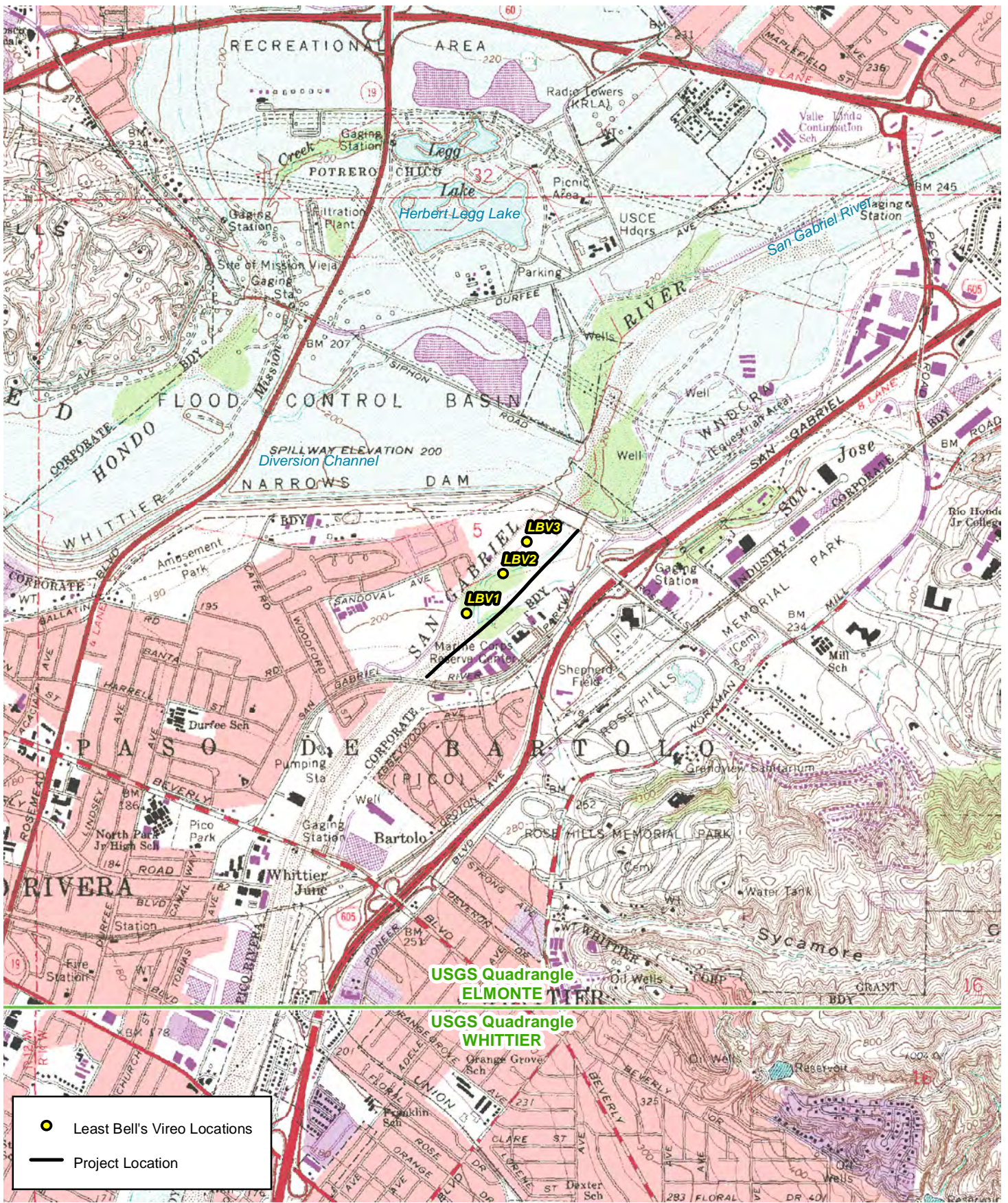
Reach 43a Least Bell's Vireo Locations (Aerial)

Exhibit 31

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



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Reach 43a Least Bell's Vireo Locations (USGS Quad)

Exhibit 32

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



SANTA CLARA RIVER AREA

REACH 80 – SOUTH FORK – SANTA CLARA RIVER (PDS 1947 AND 1946)

Least Bell's Vireo

One singing male least Bell's vireo was present on April 11 (Exhibits 33 and 34). This migrant stayed for just a few minutes before leaving the survey area. It was on the north bench of the channel in habitat that consisted of patchy tree tobacco (*Nicotiana glauca*), scalebroom (*Lepidospartum squamatum*), and Great Basin sagebrush (*Artemisia tridentata*).

REACH 82 – SANTA CLARA RIVER MAIN CHANNEL (PD 2278)

Southwestern Willow Flycatcher

A migrant willow flycatcher was observed west of the Reach 82 (11S 355509, 3810832) on June 18. It was foraging low in young willows growing in standing water associated with a side outlet. This bird sang and called occasionally, but was unresponsive to playback of pre-recorded vocalizations.

REACH 105 – SAN FRANCISQUITO CHANNEL (PD 2456)

Southwestern Willow Flycatcher

Two migrant willow flycatchers were together and singing upstream of the Decoro Drive bridge and west of the Reach 105 flood-control structures on the left bank (east bank) of the channel (11S 356731, 3812706) on June 18. A very late migrant was present at the left bank side outlet upstream of the Decoro Drive Bridge (11S 356898, 3812686) on June 26. This bird was silent and unresponsive to playback of pre-recorded vocalizations. It left the riparian habitat and foraged in the ornamental trees of the adjacent residential homes. After approximately one hour, it returned to the willow riparian habitat next to the water at the same side outlet where it was initially observed. Mr. Daniels returned early the next morning, June 27, but was not able to find this willow flycatcher. No willow flycatcher was found on July 9. Photos of this bird (see Exhibit A-2) were shared with other observers with expertise on the species, but could not be identified to subspecies. Therefore, this bird is best considered to be a very late migrant of unknown subspecies.

REACH 109 – SANTA CLARA RIVER – SOUTH BANK WEST OF MCBEAN PARKWAY (MTD 1510)

Southwestern Willow Flycatcher

One migrant willow flycatcher was observed west of Reach 109 (11S 356079, 3810302) on June 18. It was calling and foraging in mule fat next to the bike trail on the south bank of the Santa Clara River. It moved north into the river and out of view. Playback of pre-recorded vocalizations brought the bird back into view. It was silent and within a minute or two continued south across the bike trail and open field into an ornamental sycamore in the adjacent apartment complex.

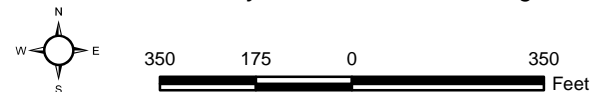


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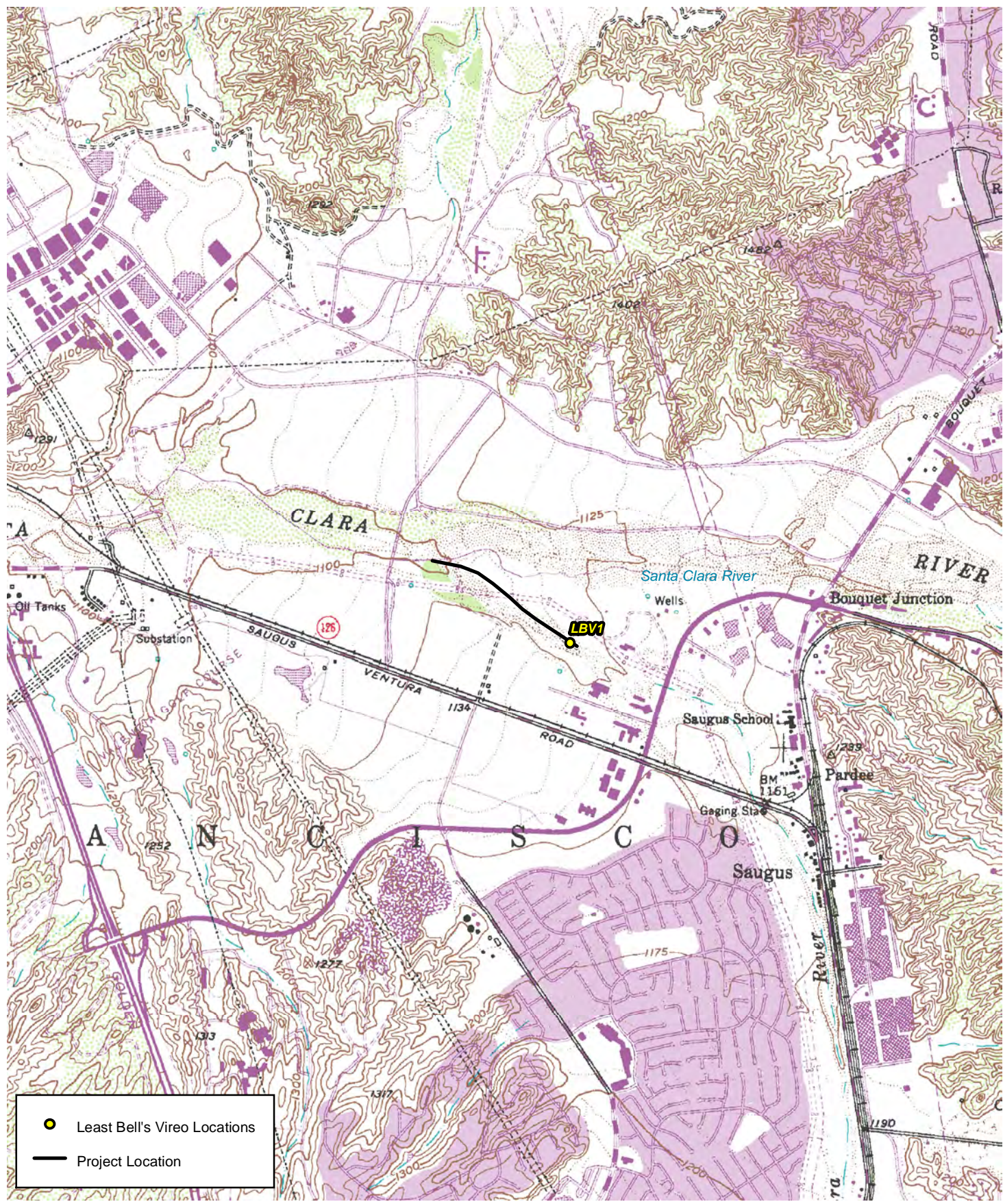
Reach 80 Least Bell's Vireo Location (Aerial)

Exhibit 33

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



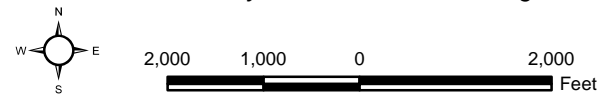
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Reach 80 Least Bell's Vireo Location (USGS Quad)

Exhibit 34

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels



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⁵ Although the California Department of Fish and Game (CDFG) changed its name to the California Department of Fish and Wildlife (CDFW) effective January 1, 2013, "CDFG" is still used throughout this document for all documents published or database searches completed before January 1, 2013.

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APPENDIX A
PHOTO-DOCUMENTATION EXHIBITS



June 25, 2013. View of female least Bell's vireo on nest at Reach 14.



May 23, 2013. View of color-banded least Bell's vireo at Reach 39.

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Site Photographs

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

Exhibit A-1

Bonterra
CONSULTING



June 26, 2013. View of very late migrant willow flycatcher at Reach 105.



June 26, 2013. View of very late migrant willow flycatcher at Reach 105.

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Site Photographs

2013 Focused Survey Results for the Los Angeles County Soft-Bottom Channels

Exhibit A-2

Bonterra
CONSULTING

APPENDIX B
BIRD COMPENDIA

APPENDIX B

BIRD COMPENDIA TABLE OF CONTENTS

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**REACH 12
HAINES CANYON MAIN CHANNEL OUTLET**

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| | 10-Apr | 20-Apr | 30-Apr | 10-May | 23-May | 10-Jun | 17-Jun | 25-Jun | 5-Jul |
| Mallard (<i>Anas platyrhynchos</i>) | 1 | 2 | 3 | | 2 | 2 | | | 3 |
| California Quail (<i>Callipepla californica</i>) | 1 | 4 | 2 | 6 | 1 | 1 | 1 | | 10 |
| Great Blue Heron (<i>Ardea herodias</i>) | 1 | | | | 1 | | 1 | | 1 |
| Great Egret (<i>Ardea alba</i>) | 1 | | | | | | | | |
| Green Heron (<i>Butorides virescens</i>) | | 1 | | 2 | | | | | |
| Black-crowned Night-Heron (<i>Nycticorax nycticorax</i>) | | | | | 1 | | | | |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | | | | | | | 1 | | |
| Red-tailed Hawk (<i>Buteo jamaicensis</i>) | | | | | 1 | | | | |
| Rock Pigeon (<i>Columba livia</i>)* | | | 2 | | | | | | |
| Eurasian Collared-Dove (<i>Streptopelia decaocto</i>)* | 2 | | | | | | | | |
| Mourning Dove (<i>Zenaida macroura</i>) | | 8 | 4 | 2 | | 3 | 3 | 4 | 5 |
| Black-chinned Hummingbird (<i>Archilochus alexandri</i>) | | 1 | | | | 1 | | 1 | 2 |
| Anna's Hummingbird (<i>Calypte anna</i>) | 2 | 3 | 4 | 4 | 1 | 1 | | 3 | 3 |
| Costa's Hummingbird (<i>Calypte costae</i>) | | 1 | | 2 | | | | | |
| Allen's Hummingbird (<i>Selasphorus sasin</i>) | 1 | 1 | 4 | 2 | | 1 | | 1 | |
| Allen's/Rufous Hummingbird (<i>Selasphorus sp.</i>) | | 1 | 1 | 2 | 2 | 7 | 4 | 8 | 10 |
| Belted Kingfisher (<i>Ceryle alcyon</i>) | | 1 | | | | | | | |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | | | | 1 | | | 1 | 1 | 1 |
| Downy Woodpecker (<i>Picoides pubescens</i>) | | | | | | | 1 | | 1 |
| Black Phoebe (<i>Sayornis nigricans</i>) | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 |
| Say's Phoebe (<i>Sayornis saya</i>) | 1 | | | | | | | | |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | | | | | 1 | 2 | 1 | | 1 |
| Cassin's Kingbird (<i>Tyrannus vociferans</i>) | 2 | | 1 | | | | 2 | 2 | 2 |
| Western Kingbird (<i>Tyrannus verticalis</i>) | | | | | | | | | 1 |
| Warbling Vireo (<i>Vireo gilvus</i>) | | | | 2 | 3 | | | | |

**REACH 12
HAINES CANYON MAIN CHANNEL OUTLET**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| | 10-Apr | 20-Apr | 30-Apr | 10-May | 23-May | 10-Jun | 17-Jun | 25-Jun | 5-Jul |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | | 1 | 1 | 1 | 1 | 1 | 1 | | 1 |
| American Crow (<i>Corvus brachyrhynchos</i>) | 2 | 3 | 5 | 3 | 2 | | 2 | 6 | 5 |
| Common Raven (<i>Corvus corax</i>) | | 1 | 2 | 1 | 3 | | | | 2 |
| Violet-green Swallow (<i>Tachycineta thalassina</i>) | | | | 4 | | | | | |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | 1 | | 4 | 1 | 5 | 4 | 13 | 12 | 1 |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | | | | | | | | 2 | |
| Barn Swallow (<i>Hirundo rustica</i>) | | | | 1 | | | | | |
| Bushtit (<i>Psaltriparus minimus</i>) | | 5 | 3 | | | | | | |
| Red-breasted Nuthatch (<i>Sitta canadensis</i>) | | | 1 | | | | | | |
| Bewick's Wren (<i>Thryomanes bewickii</i>) | 3 | 2 | 2 | 2 | | 4 | | 2 | 1 |
| Blue-gray gnatcatcher (<i>Polioptila caerulea</i>) | | 1 | | | | | | | |
| Ruby-crowned Kinglet (<i>Regulus calendula</i>) | 1 | 2 | | | | | | | |
| Western Bluebird (<i>Sialia mexicana</i>) | 3 | 3 | 1 | | | | | | |
| Swainson's Thrush (<i>Catharus ustulatus</i>) | | | | | 2 | | | | |
| American Robin (<i>Turdus migratorius</i>) | | | 1 | | | | | | |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | 1 | 1 | 2 | 1 | 1 | | | 3 | 5 |
| European Starling (<i>Sturnus vulgaris</i>)* | 1 | 1 | 1 | | | | 2 | 1 | |
| Cedar Waxwing (<i>Bombycilla cedrorum</i>) | | | 5 | 10 | | | | | |
| Phainopepla (<i>Phainopepla nitens</i>) | | | | | | 1 | 1 | 1 | |
| Orange-crowned Warbler (<i>Oreothlypis celata</i>) | 1 | | | | | | | | |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | 3 | 3 | 1 | 1 | 6 | 3 | 4 | 3 | 4 |
| Yellow Warbler (<i>Setophaga petechia</i>) | | 1 | 2 | 8 | 5 | 4 | 4 | 4 | 5 |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 12 | 12 | | | | | | | |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | | 1 | 2 | 6 | 2 | | | | |
| Spotted Towhee (<i>Pipilo maculatus</i>) | 1 | | | | | 2 | | | |

**REACH 12
HAINES CANYON MAIN CHANNEL OUTLET**

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| | 10-Apr | 20-Apr | 30-Apr | 10-May | 23-May | 10-Jun | 17-Jun | 25-Jun | 5-Jul |
| California Towhee (<i>Melospiza crissalis</i>) | | | 2 | 2 | 1 | 2 | 1 | 2 | |
| Song Sparrow (<i>Melospiza lincolnii</i>) | 5 | 1 | 2 | 3 | 8 | 6 | 4 | 7 | 3 |
| Lincoln's sparrow (<i>Melospiza lincolnii</i>) | | 1 | | | | | | | |
| White-crowned Sparrow (<i>Zonotrichia leucophrys</i>) | 11 | | | | | | | | |
| Western Tanager (<i>Piranga ludoviciana</i>) | | | 12 | 1 | 3 | | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | | | 1 | 2 | 1 | | | | |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | | | | | | | 1 | 1 |
| Lazuli Bunting (<i>Passerina amoena</i>) | | | 1 | 1 | | | | | |
| Red-winged Blackbird (<i>Ageaius phoeniceus</i>) | 3 | 3 | 2 | 1 | | | | | |
| Brewer's Blackbird (<i>Euphagus cyanocephalus</i>) | | | | 1 | | | | | |
| Great-tailed Grackle (<i>Quiscalus mexicanus</i>) | | | 2 | | | | | | |
| Hooded Oriole (<i>Icterus cucullatus</i>) | 1 | 1 | 1 | 3 | 1 | 1 | 2 | 3 | 3 |
| Bullock's Oriole (<i>Icterus bullockii</i>) | | 1 | 1 | 3 | 1 | 4 | 3 | 2 | |
| House Finch (<i>Haemorhous mexicanus</i>) | 6 | 6 | 11 | 9 | 8 | 4 | 10 | 8 | 8 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 4 | 7 | 3 | 12 | 8 | 5 | 4 | 3 | 1 |
| American Goldfinch (<i>Spinus tristis</i>) | | 1 | | 2 | | | | | 1 |
| House Sparrow (<i>Passer domesticus</i>)* | | 1 | | | | 5 | | 2 | 1 |

* Introduced non-native species with established breeding population in California

**REACH 14
MAY CHANNEL
(MAIN CHANNEL OUTLET INTO PACOIMA CANYON)**

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| | 10-Apr | 20-Apr | 30-Apr | 10-May | 23-May | 10-Jun | 17-Jun | 25-Jun | 5-Jul |
| Canada Goose (<i>Branta canadensis</i>) | 2 | | | | | | | | |
| Mallard (<i>Anas platyrhynchos</i>) | | | 1 | 3 | 1 | | | | |
| California Quail (<i>Callipepla californica</i>) | | | | 2 | | 5 | | 10 | 10 |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | 1 | | | 1 | | | | | |
| Red-shouldered Hawk (<i>Buteo lineatus</i>) | 1 | 1 | | | | | 1 | 1 | |
| Killdeer (<i>Charadrius vociferous</i>) | | | | | 2 | | | | |
| Rock Pigeon (<i>Columba livia</i>)* | | 3 | | | | | | | |
| Eurasian Collared-Dove (<i>Streptopelia decaocto</i>)* | | | 2 | | | | | | |
| Mourning Dove (<i>Zenaida macroura</i>) | 6 | 6 | 2 | 6 | | 1 | 1 | | 4 |
| Lesser Nighthawk (<i>Chordeiles acutipennis</i>) | | | 1 | 1 | | | | | |
| White-throated Swift (<i>Aeronautes saxatalis</i>) | | 1 | | | | | | | |
| Black-chinned Hummingbird (<i>Archilochus alexandri</i>) | 1 | 1 | | | 3 | 1 | | 1 | |
| Anna's Hummingbird (<i>Calypte anna</i>) | 5 | 3 | 3 | 4 | 1 | | 2 | 1 | 2 |
| Costa's Hummingbird (<i>Calypte costae</i>) | 1 | | | 1 | | | | | |
| Allen's/Rufous Hummingbird (<i>Selasphorus sp.</i>) | 1 | 2 | 1 | 1 | | 1 | 2 | 1 | 1 |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | 1 | | 1 | | | 1 | 2 | | |
| Peregrine Falcon (<i>Falco peregrines</i>) | | | | | | | | 1 | |
| Hammond's flycatcher (<i>Empidonax hammondii</i>) | 1 | | | | | | | | |
| Black Phoebe (<i>Sayornis nigricans</i>) | | | | | 1 | | | | 1 |
| Say's Phoebe (<i>Sayornis saya</i>) | 1 | 1 | 1 | 2 | | 1 | | | |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | 1 | 1 | | 2 | 1 | | | | |
| Cassin's Kingbird (<i>Tyrannus vociferans</i>) | | 2 | 2 | | | 1 | 1 | 2 | |
| Western Kingbird (<i>Tyrannus verticalis</i>) | 1 | 2 | 2 | 2 | | 1 | | | |
| Bell's Vireo (<i>Vireo bellii</i>) | 2 | 3 | 3 | 3 | 4 | 1 | | 1 | 1 |

**REACH 14
MAY CHANNEL
(MAIN CHANNEL OUTLET INTO PACOIMA CANYON)**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| | 10-Apr | 20-Apr | 30-Apr | 10-May | 23-May | 10-Jun | 17-Jun | 25-Jun | 5-Jul |
| Warbling Vireo (<i>Vireo gilvus</i>) | | | | 3 | | | | | |
| American Crow (<i>Corvus brachyrhynchos</i>) | 3 | 3 | 2 | 6 | 4 | 6 | 5 | 2 | 2 |
| Common Raven (<i>Corvus corax</i>) | 4 | 1 | 6 | 2 | 3 | 6 | 1 | 5 | 4 |
| Violet-green Swallow (<i>Tachycineta thalassina</i>) | 1 | | | | | | | | |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | 5 | 1 | | | 2 | 2 | 4 | 6 | |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | 15 | 2 | 5 | 12 | 6 | 3 | 8 | | 4 |
| Barn Swallow (<i>Hirundo rustica</i>) | | | | | | 1 | | | |
| Bushtit (<i>Psaltriparus minimus</i>) | 2 | 7 | 9 | 14 | | 2 | | | |
| White-breasted Nuthatch (<i>Sitta carolinensis</i>) | | | | | | | | 1 | |
| Bewick's Wren (<i>Thryomanes bewickii</i>) | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 2 |
| Wrentit (<i>Chamaea fasciata</i>) | 2 | 2 | 1 | | 1 | | 1 | | 1 |
| Swainson's Thrush (<i>Catharus ustulatus</i>) | | | | 1 | 2 | | | | |
| American Robin (<i>Turdus migratorius</i>) | | | | | | 1 | 1 | 1 | |
| California Thrasher (<i>Toxostoma redivivum</i>) | | 1 | | | 2 | | 1 | 1 | 1 |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | | 1 | | | | 1 | | | |
| European Starling (<i>Sturnus vulgaris</i>)* | 4 | | | | | | | | |
| Cedar Waxwing (<i>Bombycilla cedrorum</i>) | | | 6 | 5 | | | | | |
| Nashville Warbler (<i>Oreothlypis ruficapilla</i>) | | | 1 | | | | | | |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | 3 | | | 3 | | | | | |
| Yellow Warbler (<i>Setophaga petechia</i>) | | 1 | 2 | 3 | | | | | |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 16 | 2 | | | | | | | |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | | 1 | | 4 | 1 | | | | |
| Spotted Towhee (<i>Pipilo maculatus</i>) | 2 | 3 | 3 | 4 | 2 | 5 | 3 | | 2 |
| California Towhee (<i>Melospiza crissalis</i>) | 8 | 9 | 8 | 10 | 3 | 5 | 3 | | 4 |

**REACH 14
MAY CHANNEL
(MAIN CHANNEL OUTLET INTO PACOIMA CANYON)**

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| | 10-Apr | 20-Apr | 30-Apr | 10-May | 23-May | 10-Jun | 17-Jun | 25-Jun | 5-Jul |
| Savannah sparrow (<i>Passerculus sandwichensis</i>) | 1 | | | | | | | | |
| Song Sparrow (<i>Melospiza lincolni</i>) | 3 | 7 | 5 | 7 | 6 | 10 | 2 | 1 | |
| White-crowned Sparrow (<i>Zonotrichia leucophrys</i>) | 15 | 2 | | | | | | | |
| Western Tanager (<i>Piranga ludoviciana</i>) | | | 2 | | | | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | | 1 | 1 | | 1 | | | 1 |
| Lazuli Bunting (<i>Passerina amoena</i>) | 2 | | 2 | | | | | | |
| Western Meadowlark (<i>Sturnella neglecta</i>) | 4 | | | | | | | | |
| Brewer's Blackbird (<i>Euphagus cyanocephalus</i>) | | | 2 | | | | | | |
| Brown-headed Cowbird (<i>Molothrus ater</i>) | 1 | 1 | | 2 | | | | | |
| Hooded Oriole (<i>Icterus cucullatus</i>) | | | | | | | | 1 | |
| Bullock's Oriole (<i>Icterus bullockii</i>) | 2 | | | 1 | | | | | |
| House Finch (<i>Haemorhous mexicanus</i>) | 18 | 11 | 18 | 21 | 25 | 12 | 20 | | |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 16 | 9 | 7 | 17 | 8 | 4 | 5 | 4 | 3 |
| American Goldfinch (<i>Spinus tristis</i>) | 5 | 12 | 6 | 12 | 1 | 6 | | 1 | 2 |
| House Sparrow (<i>Passer domesticus</i>)* | | | | | | | | 16 | 2 |

* Introduced non-native species with established breeding population in California

**REACH 27
WILMINGTON DRAIN**

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|-------|--------|--------|--------|--------|--------|--------|
| | 15-Apr | 25-Apr | 5-May | 15-May | 29-May | 12-Jun | 21-Jun | 28-Jun | 11-Jul |
| Mallard (<i>Anas platyrhynchos</i>) | | 2 | 3 | | 2 | | | | |
| Great Blue Heron (<i>Ardea herodias</i>) | | 1 | 1 | | | | | | |
| Great Egret (<i>Ardea alba</i>) | 2 | | 1 | | | 1 | | | |
| Snowy Egret (<i>Egretta thula</i>) | | 1 | 1 | 1 | | 6 | | 1 | |
| Green Heron (<i>Butorides virescens</i>) | | | | | | 1 | | | |
| Red-shouldered Hawk (<i>Buteo lineatus</i>) | | 2 | | 1 | 1 | | | | |
| Western Gull (<i>Larus occidentalis</i>) | 3 | | | | | 1 | | 1 | |
| Rock Pigeon (<i>Columba livia</i>)* | | | 20 | 3 | 2 | 2 | | | 30 |
| Eurasian Collared-Dove (<i>Streptopelia decaocto</i>)* | | 1 | 3 | 1 | | 1 | 3 | 3 | |
| Mourning Dove (<i>Zenaida macroura</i>) | 5 | 7 | | | 1 | 2 | 4 | 3 | 1 |
| Vaux's Swift (<i>Chaetura vauxi</i>) | | 8 | | | | | | | |
| Anna's Hummingbird (<i>Calypte anna</i>) | | 2 | 2 | 4 | | | 1 | | |
| Allen's Hummingbird (<i>Selasphorus sasin</i>) | 3 | 3 | 1 | 2 | | | | 1 | |
| Allen's/Rufous Hummingbird (<i>Selasphorus sp.</i>) | | 2 | 2 | 1 | 3 | 1 | 1 | 1 | |
| Belted Kingfisher (<i>Ceryle alcyon</i>) | | | | | | | | | |
| Downy Woodpecker (<i>Picoides pubescens</i>) | 1 | 1 | | 2 | 1 | 2 | 1 | | |
| Western Wood-Pewee (<i>Contopus sordidulus</i>) | | | | | | | | | |
| Pacific-slope flycatcher (<i>Empidonax difficilis</i>) | | 1 | | | 1 | | | | |
| Black Phoebe (<i>Sayornis nigricans</i>) | 3 | 4 | 2 | 3 | 4 | 2 | 2 | 3 | 1 |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | | 2 | | | | | | | |
| Western Kingbird (<i>Tyrannus verticalis</i>) | | 1 | | | | | | | |
| Bell's Vireo (<i>Vireo bellii</i>) | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Warbling Vireo (<i>Vireo gilvus</i>) | | 3 | | 4 | | | | | |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | | 1 | | | | | | | |
| American Crow (<i>Corvus brachyrhynchos</i>) | 1 | 7 | 4 | 6 | | 10 | 1 | 2 | |

**REACH 27
WILMINGTON DRAIN**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|--------|--------|--------|--------|
| | 15-Apr | 25-Apr | 5-May | 15-May | 29-May | 12-Jun | 21-Jun | 28-Jun | 11-Jul |
| Common Raven (<i>Corvus corax</i>) | | 1 | 2 | 2 | 1 | | | 1 | |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | | 4 | 4 | 2 | 4 | 2 | 2 | 1 | |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | | 6 | | | | | | | |
| Barn Swallow (<i>Hirundo rustica</i>) | | 3 | | | 7 | 10 | 2 | 6 | 6 |
| Bushtit (<i>Psaltriparus minimus</i>) | 2 | 1 | 15 | 18 | 15 | 15 | 10 | 10 | |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | | 4 | 2 | 2 | 1 | 2 | 1 | 3 | 2 |
| European Starling (<i>Sturnus vulgaris</i>)* | 1 | 2 | | 5 | 3 | 5 | 2 | 2 | |
| Cedar Waxwing (<i>Bombycilla cedrorum</i>) | 12 | 25 | 4 | | | | | | |
| Orange-crowned Warbler (<i>Oreothlypis celata</i>) | 1 | 2 | 1 | 5 | 1 | | | | |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | 1 | | 5 | 3 | 9 | 4 | 2 | | |
| Palm Warbler (<i>Dendroica palmarum</i>) | | 1 | | | | | | | |
| Yellow Warbler (<i>Setophaga petechia</i>) | 2 | 4 | 9 | 6 | 6 | 6 | 6 | 3 | 4 |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 8 | 9 | | | | | | | |
| Black-throated Gray Warbler (<i>Setophaga nigrescens</i>) | | 1 | | | | | | | |
| Townsend's Warbler (<i>Setophaga townsendi</i>) | | 1 | 2 | | | | | | |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | 4 | 3 | 5 | 4 | | | | | |
| California Towhee (<i>Melospiza crissalis</i>) | | 6 | 6 | 4 | 5 | 4 | 3 | | 6 |
| Song Sparrow (<i>Melospiza lincolnii</i>) | 2 | 6 | 9 | 7 | 3 | 4 | | 5 | |
| White-crowned Sparrow (<i>Zonotrichia leucophrys</i>) | 2 | | | | | | | | |
| Western Tanager (<i>Piranga ludoviciana</i>) | | 9 | 8 | 3 | | | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | 1 | 2 | 1 | | | | | | |
| Lazuli Bunting (<i>Passerina amoena</i>) | | 4 | 1 | | | | | | |
| Red-winged Blackbird (<i>Ageaius phoeniceus</i>) | 1 | 2 | 2 | | | | | | |
| Brown-headed Cowbird (<i>Molothrus ater</i>) | 1 | 5 | 6 | 4 | | | | | |
| Hooded Oriole (<i>Icterus cucullatus</i>) | 4 | 6 | 6 | 2 | 3 | 5 | 4 | 4 | 3 |

**REACH 27
WILMINGTON DRAIN**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|--------|--------|--------|--------|
| | 15-Apr | 25-Apr | 5-May | 15-May | 29-May | 12-Jun | 21-Jun | 28-Jun | 11-Jul |
| Bullock's Oriole (<i>Icterus bullockii</i>) | 2 | 3 | 3 | 1 | 1 | 1 | 2 | | 1 |
| House Finch (<i>Haemorhous mexicanus</i>) | 2 | 25 | 18 | 22 | 25 | 12 | 50 | 20 | 10 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 2 | 9 | 8 | 10 | 2 | | 6 | | 2 |
| American Goldfinch (<i>Spinus tristis</i>) | | | | 2 | 3 | 1 | | | |
| House Sparrow (<i>Passer domesticus</i>)* | | 1 | 2 | 1 | 2 | 3 | | | 2 |
| Nutmeg Mannikin (<i>Lonchura punctulata</i> **) | | | | | 2 | 6 | 2 | 6 | 5 |
| * Introduced non-native species with established breeding population in California | | | | | | | | | |
| ** Exotic or escaped non-native species that may or many not be breeding in California | | | | | | | | | |

**REACH 28
TRIUNFO CREEK (PD T2200)**

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|-------|--------|--------|--------|--------|--------|--------|
| | 15-Apr | 25-Apr | 5-May | 15-May | 29-May | 12-Jun | 21-Jun | 28-Jun | 11-Jul |
| Mallard (<i>Anas platyrhynchos</i>) | 2 | 4 | 1 | 1 | | | | | |
| California Quail (<i>Callipepla californica</i>) | 1 | | | | | | | 10 | 5 |
| Common Peafowl (<i>Pavo cristatus</i>)** | 2 | 9 | 6 | 2 | 5 | 4 | 1 | 3 | 2 |
| Great Blue Heron (<i>Ardea herodias</i>) | 1 | 1 | | | 1 | | | | 1 |
| Snowy Egret (<i>Egretta thula</i>) | | 1 | | | | | | | |
| Green Heron (<i>Butorides virescens</i>) | 1 | | | | | | | | |
| Black-crowned Night-Heron (<i>Nycticorax nycticorax</i>) | | | | | | | | 1 | |
| Red-shouldered Hawk (<i>Buteo lineatus</i>) | | 1 | | | 1 | 2 | 2 | 3 | 2 |
| Band-tailed Pigeon (<i>Patagioenas fasciata</i>) | | 1 | | | 5 | | 1 | 1 | |
| Mourning Dove (<i>Zenaida macroura</i>) | | | 1 | | | | | 1 | 3 |
| Western screech owl (<i>Megascops kennicottii</i>) | | | | | 1 | | | | |
| Black-chinned Hummingbird (<i>Archilochus alexandri</i>) | | | | | 1 | | | | |
| Anna's Hummingbird (<i>Calypte anna</i>) | 2 | 2 | 1 | 1 | | | | 3 | |
| Allen's/Rufous Hummingbird (<i>Selasphorus sp.</i>) | 1 | | | | | | | | |
| Acorn Woodpecker (<i>Melanerpes formicivorus</i>) | | 3 | 4 | 3 | 7 | 3 | 5 | 6 | 4 |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 |
| Downy Woodpecker (<i>Picoides pubescens</i>) | | | | 1 | | | | | |
| Northern Flicker (<i>Colaptes auratus</i>) | 1 | | | 1 | 2 | 1 | 1 | 4 | 1 |
| Red-crowned Parrot (<i>Amazona viridigenalis</i>)* | 5 | | | | | | | | |
| Black-hooded Parakeet (<i>Nandayus nenday</i>)** | | | 4 | 22 | 2 | 1 | 2 | 17 | 5 |
| Pacific-slope Flycatcher (<i>Empidonax difficilis</i>) | 1 | 1 | 2 | 3 | 2 | 4 | 2 | 1 | 1 |
| Black Phoebe (<i>Sayornis nigricans</i>) | 1 | 1 | | | 2 | 1 | 4 | 2 | |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | | | 2 | 2 | 3 | 2 | 1 | 2 | 1 |
| Cassin's Kingbird (<i>Tyrannus vociferans</i>) | | 2 | | | | | 1 | | |
| Warbling Vireo (<i>Vireo gilvus</i>) | | | | | 1 | | | | |

**REACH 28
TRIUNFO CREEK (PD T2200)**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|--------|--------|--------|--------|
| | 15-Apr | 25-Apr | 5-May | 15-May | 29-May | 12-Jun | 21-Jun | 28-Jun | 11-Jul |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | | 1 | 2 | 1 | 4 | | 2 | 5 | |
| American Crow (<i>Corvus brachyrhynchos</i>) | 2 | 12 | 7 | 11 | 12 | 17 | 10 | 7 | 19 |
| Common Raven (<i>Corvus corax</i>) | 1 | 1 | | | | | | | |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | 1 | 1 | | 2 | 1 | | | | |
| Oak Titmouse (<i>Baeolophus inornatus</i>) | 2 | 2 | | | 3 | 2 | 4 | 3 | 2 |
| Bushtit (<i>Psaltriparus minimus</i>) | | | 5 | | | | 2 | | |
| White-breasted Nuthatch (<i>Sitta carolinensis</i>) | 1 | 2 | | | 2 | 3 | 3 | 2 | 2 |
| House Wren (<i>Troglodytes aedon</i>) | 6 | 8 | 9 | 9 | 6 | 7 | 2 | | |
| Blue-gray gnatcatcher (<i>Polioptila caerulea</i>) | | 1 | | 1 | | | | | |
| Wrentit (<i>Chamaea fasciata</i>) | 2 | | 1 | | 1 | 1 | 1 | 2 | |
| Western Bluebird (<i>Sialia mexicana</i>) | | | | 1 | 1 | 1 | | | |
| Swainson's Thrush (<i>Catharus ustulatus</i>) | | | | | | 1 | | | |
| European Starling (<i>Sturnus vulgaris</i>)* | | 5 | 6 | 2 | 8 | | 2 | 3 | 2 |
| Orange-crowned Warbler (<i>Oreothlypis celata</i>) | 1 | | 1 | 3 | 2 | 1 | 1 | | |
| Yellow Warbler (<i>Setophaga petechia</i>) | 1 | 1 | 1 | | 1 | | 2 | | |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 1 | | | | | | | | |
| Spotted Towhee (<i>Pipilo maculatus</i>) | 3 | | 3 | 3 | 6 | 5 | 4 | 5 | 1 |
| Rufous-crowned Sparrow (<i>Aimophila ruficeps</i>) | | | | | | | 1 | | |
| California Towhee (<i>Melospiza crissalis</i>) | 2 | 1 | 1 | 4 | 1 | | 2 | 1 | 1 |
| Song Sparrow (<i>Melospiza lincolnii</i>) | 2 | 2 | | 2 | 6 | 1 | 6 | 6 | 4 |
| Dark-eyed Junco (<i>Junco hyemalis</i>) | | | | | | | 2 | | |
| Western Tanager (<i>Piranga ludoviciana</i>) | | 1 | 1 | | 2 | 1 | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | | 3 | | | 1 | 3 | 2 | 1 | 3 |
| Red-winged Blackbird (<i>Ageaius phoeniceus</i>) | | 1 | 1 | | | | | | 1 |
| Brown-headed Cowbird (<i>Molothrus ater</i>) | 1 | 2 | | 1 | 2 | 3 | 1 | | 1 |

**REACH 28
TRIUNFO CREEK (PD T2200)**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|--------|--------|--------|--------|
| | 15-Apr | 25-Apr | 5-May | 15-May | 29-May | 12-Jun | 21-Jun | 28-Jun | 11-Jul |
| Hooded Oriole (<i>Icterus cucullatus</i>) | 1 | | 3 | | 1 | 3 | 2 | 1 | |
| Bullock's Oriole (<i>Icterus bullockii</i>) | 1 | 2 | | 1 | 2 | 6 | 5 | 1 | |
| House Finch (<i>Haemorhous mexicanus</i>) | 4 | 5 | 5 | 14 | 20 | 17 | 12 | 15 | 18 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 1 | 8 | 12 | 9 | 6 | 7 | 2 | 5 | 4 |
| * Introduced non-native species with established breeding population in California | | | | | | | | | |
| ** Exotic or escaped non-native species that may or many not be breeding in California | | | | | | | | | |

**REACH 39
BEATTY CHANNEL OUTLET AT SAN GABRIEL RIVER
25+99.00+50'**

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| | 10-Apr | 20-Apr | 30-Apr | 10-May | 23-May | 10-Jun | 17-Jun | 25-Jun | 5-Jul |
| Mallard (<i>Anas platyrhynchos</i>) | 1 | | | | | | | | |
| California Quail (<i>Callipepla californica</i>) | 5 | 3 | 4 | 2 | | | 4 | | 10 |
| Great Egret (<i>Ardea alba</i>) | | | | | | 1 | | | |
| Turkey Vulture (<i>Cathartes aura</i>) | 4 | | 1 | 2 | | 2 | 2 | | 1 |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | | | | | 1 | 1 | 1 | | |
| Red-tailed Hawk (<i>Buteo jamaicensis</i>) | 2 | | | | | | 2 | | |
| Red-shouldered Hawk (<i>Buteo lineatus</i>) | | | | 1 | | | | | 1 |
| Killdeer (<i>Charadrius vociferous</i>) | 2 | 1 | | 1 | | | | | |
| Greater Yellowlegs (<i>Tringa melanoleuca</i>) | 1 | | | | | | | | |
| Rock Pigeon (<i>Columba livia</i>)* | 3 | | | 20 | 2 | | 20 | | |
| Band-tailed Pigeon (<i>Patagioenas fasciata</i>) | | | | | | | | | |
| Mourning Dove (<i>Zenaida macroura</i>) | 3 | 3 | 2 | 8 | 5 | 3 | 4 | 3 | 18 |
| Yellow-chevroned Parakeet (<i>Brotogeris chiriri</i> **) | | | | | | 7 | | | |
| Red-crowned Parrot (<i>Amazona viridigenalis</i>)* | | | | | | | 2 | 2 | 2 |
| Lesser Nighthawk (<i>Chordeiles acutipennis</i>) | | | | 1 | | | | | |
| Vaux's Swift (<i>Chaetura vauxi</i>) | | | | 3 | | | | | |
| White-throated Swift (<i>Aeronautes saxatalis</i>) | 1 | 1 | | 2 | | 2 | 2 | | |
| Black-chinned Hummingbird (<i>Archilochus alexandri</i>) | | | | 1 | 1 | 1 | 1 | | |
| Anna's Hummingbird (<i>Calypte anna</i>) | 6 | 9 | 4 | 3 | 3 | 1 | 2 | | 1 |
| Costa's Hummingbird (<i>Calypte costae</i>) | | | 2 | | | | 1 | | |
| Allen's Hummingbird (<i>Selasphorus sasin</i>) | 1 | 1 | | | 1 | | 1 | | |
| Allen's/Rufous Hummingbird (<i>Selasphorus sp.</i>) | | 1 | | 2 | 1 | | 2 | | |
| Acorn Woodpecker (<i>Melanerpes formicivorus</i>) | | | | 1 | 1 | 1 | 1 | | |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | | 1 | 1 | 2 | 1 | | | 1 | 1 |

**REACH 39
BEATTY CHANNEL OUTLET AT SAN GABRIEL RIVER
25+99.00+50'**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| | 10-Apr | 20-Apr | 30-Apr | 10-May | 23-May | 10-Jun | 17-Jun | 25-Jun | 5-Jul |
| Downy Woodpecker (<i>Picoides pubescens</i>) | | 1 | | | | | | | |
| Parakeet Sp. (<i>Psittacidae sp.</i>)** | | 2 | | | | | | | |
| Parrot Sp. (<i>Psittacidae sp.</i>)** | | 2 | | | | | | | |
| Black Phoebe (<i>Sayornis nigricans</i>) | | 4 | 3 | 2 | 2 | 1 | 4 | | |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | | 1 | | | | | | 1 | |
| Cassin's Kingbird (<i>Tyrannus vociferans</i>) | | | | | | | | 2 | |
| Western Kingbird (<i>Tyrannus verticalis</i>) | | | 1 | 1 | | | | | |
| Bell's Vireo (<i>Vireo bellii</i>) | 3 | 2 | 3 | 1 | 3 | 1 | 2 | 1 | |
| Hutton's Vireo (<i>Vireo huttoni</i>) | | | | | 1 | | | | |
| Warbling Vireo (<i>Vireo gilvus</i>) | | | | | 2 | | | | |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | 1 | 2 | 3 | | 1 | | 2 | 3 | 1 |
| American Crow (<i>Corvus brachyrhynchos</i>) | | 4 | | 6 | | 3 | | 1 | 4 |
| Common Raven (<i>Corvus corax</i>) | 2 | 1 | 1 | 2 | 3 | 3 | 3 | | 1 |
| Red-whiskered Bulbul (<i>Pycnonotus jocosus</i>)** | | | | | | | 1 | | |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | 4 | 1 | 2 | 5 | 4 | 2 | 6 | | 6 |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | 1 | 8 | 4 | 21 | 2 | 25 | 5 | 10 | 5 |
| Barn Swallow (<i>Hirundo rustica</i>) | | 1 | | | | | | | |
| Bushtit (<i>Psaltriparus minimus</i>) | 6 | | 23 | 6 | | 10 | 2 | | |
| Red-breasted Nuthatch (<i>Sitta canadensis</i>) | | 1 | | | | | | | |
| House Wren (<i>Troglodytes aedon</i>) | | 1 | | 1 | 1 | | | | |
| Bewick's Wren (<i>Thryomanes bewickii</i>) | 3 | 3 | 4 | 2 | 5 | 6 | 3 | 1 | 1 |
| Blue-gray gnatcatcher (<i>Polioptila caerulea</i>) | | 2 | | | | | | | |
| Wrentit (<i>Chamaea fasciata</i>) | 4 | 4 | 2 | 2 | 5 | 4 | 10 | 4 | 5 |
| Swainson's Thrush (<i>Catharus ustulatus</i>) | | | | | 1 | | | | |

**REACH 39
BEATTY CHANNEL OUTLET AT SAN GABRIEL RIVER
25+99.00+50'**

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| | 10-Apr | 20-Apr | 30-Apr | 10-May | 23-May | 10-Jun | 17-Jun | 25-Jun | 5-Jul |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | 5 | 5 | 5 | 6 | 3 | 11 | 8 | 6 | 5 |
| California Thrasher (<i>Toxostoma redivivum</i>) | 1 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 |
| European Starling (<i>Sturnus vulgaris</i>)* | | | | 2 | | | | | |
| Cedar Waxwing (<i>Bombycilla cedrorum</i>) | | | 7 | 5 | | | | | |
| Phainopepla (<i>Phainopepla nitens</i>) | | 1 | | 3 | 8 | 5 | 4 | 2 | 2 |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | 7 | 11 | 3 | 7 | 6 | 5 | 4 | 2 | 3 |
| Yellow Warbler (<i>Setophaga petechia</i>) | 1 | 2 | 2 | 2 | | 2 | 1 | | 1 |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 1 | | | | | | | | |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | | | | 3 | 1 | | | | |
| Yellow-breasted Chat (<i>Icteria virens</i>) | | 1 | 2 | | 3 | 2 | 3 | | 1 |
| Spotted Towhee (<i>Pipilo maculatus</i>) | 6 | 4 | 4 | 6 | 8 | 5 | 8 | 5 | |
| California Towhee (<i>Melospiza crissalis</i>) | 9 | 10 | 10 | 12 | 7 | 6 | 4 | 3 | 5 |
| Song Sparrow (<i>Melospiza lincolnii</i>) | 8 | 16 | 15 | 15 | 20 | 1 | 2 | | 5 |
| Lincoln's sparrow (<i>Melospiza lincolnii</i>) | | 1 | | | | | | | |
| Western Tanager (<i>Piranga ludoviciana</i>) | | 1 | | 1 | | | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | | 4 | 4 | 5 | 1 | 2 | 2 | 2 | 1 |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | | | | 1 | | | | |
| Lazuli Bunting (<i>Passerina amoena</i>) | | | 1 | | | | | | |
| Red-winged Blackbird (<i>Ageaius phoeniceus</i>) | 1 | | | | 1 | | | | |
| Brown-headed Cowbird (<i>Molothrus ater</i>) | | 6 | 4 | 4 | 3 | 1 | 4 | | 1 |
| Hooded Oriole (<i>Icterus cucullatus</i>) | | 1 | | 1 | | | | 1 | |
| Bullock's Oriole (<i>Icterus bullockii</i>) | | 1 | | | | | 1 | | |
| Purple Finch (<i>Haemorhous purpureus</i>) | 1 | | 2 | 2 | 1 | | 2 | | |
| House Finch (<i>Haemorhous mexicanus</i>) | 16 | 5 | 22 | 20 | 5 | 20 | 30 | 26 | 16 |

**REACH 39
BEATTY CHANNEL OUTLET AT SAN GABRIEL RIVER
25+99.00+50'**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| | 10-Apr | 20-Apr | 30-Apr | 10-May | 23-May | 10-Jun | 17-Jun | 25-Jun | 5-Jul |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 11 | 6 | 14 | 11 | 5 | 3 | 4 | 2 | |
| Lawrence's Goldfinch (<i>Spinus lawrencei</i>) | 2 | | | | | | | | |
| American Goldfinch (<i>Spinus tristis</i>) | 2 | | 2 | 2 | 4 | 5 | 5 | | |
| Nutmeg Mannikin (<i>Lonchura punctulata</i>)** | | | | | | 1 | 3 | | 8 |
| Orange Bishop (<i>Euplectes franciscanus</i>)** | | 2 | | | 1 | | 2 | | |
| * Introduced non-native species with established breeding population in California | | | | | | | | | |
| ** Exotic or escaped non-native species that may or many not be breeding in California | | | | | | | | | |

REACH 40B
SAN GABRIEL RIVER – I-10 FREEWAY TO THIENES AVENUE

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 10-Apr | 20-Apr | 1-May | 11-May | 22-May | 1-Jun | 14-Jun | 28-Jun | 12-Jul |
| Canada Goose (<i>Branta canadensis</i>) | 1 | | | | | | | | |
| Mallard (<i>Anas platyrhynchos</i>) | 2 | | 3 | 8 | 10 | 4 | 6 | | 1 |
| Pied-billed Grebe (<i>Podilymbus podiceps</i>) | 3 | 3 | | 3 | 4 | 2 | 5 | 3 | 1 |
| Double-crested Cormorant (<i>Phalacrocorax auritus</i>) | 4 | | | 4 | 1 | 1 | 3 | 1 | 1 |
| Great Blue Heron (<i>Ardea herodias</i>) | 1 | 2 | | 1 | | 2 | | 1 | 1 |
| Great Egret (<i>Ardea alba</i>) | | 1 | | 1 | | | | 1 | |
| Snowy Egret (<i>Egretta thula</i>) | | | | | 1 | | 3 | 3 | |
| Green Heron (<i>Butorides virescens</i>) | | | | | 2 | | 1 | 1 | 1 |
| Black-crowned Night-Heron (<i>Nycticorax nycticorax</i>) | | | | | | | 1 | 1 | 1 |
| Turkey Vulture (<i>Cathartes aura</i>) | 1 | 1 | | 1 | | 1 | | | 1 |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | | 1 | | | | | | | |
| Red-tailed Hawk (<i>Buteo jamaicensis</i>) | 1 | 1 | | | | 1 | | | |
| Common Gallinule (<i>Gallinula galeata</i>) | 2 | | 1 | 1 | | | 10 | 4 | 4 |
| American Coot (<i>Fulica americana</i>) | 5 | 5 | 3 | 2 | 4 | 5 | 5 | 2 | 2 |
| Killdeer (<i>Charadrius vociferous</i>) | | 4 | 4 | 1 | 2 | 3 | 2 | 4 | 1 |
| Black-necked Stilt (<i>Himantopus mexicanus</i>) | | 2 | | 2 | 10 | 3 | | | |
| American Avocet (<i>Recurvirostra americana</i>) | | | | | 2 | | | | |
| Spotted Sandpiper (<i>Actitis macularius</i>) | | | | | | | | 1 | 2 |
| Greater Yellowlegs (<i>Tringa melanoleuca</i>) | | | | | 1 | | | | |
| California Gull (<i>Larus californicus</i>) | 25 | | | | | | | | |
| Caspian Tern (<i>Hydroprogne caspia</i>) | | | | | 2 | | 1 | 1 | |
| Rock Pigeon (<i>Columba livia</i>)* | | 3 | | | | | 3 | | |
| Eurasian Collared-Dove (<i>Streptopelia decaocto</i>)* | 2 | 1 | 1 | 1 | 6 | 2 | 5 | 3 | 4 |
| Mourning Dove (<i>Zenaida macroura</i>) | 2 | 3 | 3 | | 5 | 3 | 6 | 7 | 9 |
| White-throated Swift (<i>Aeronautes saxatalis</i>) | | | | | | | | 3 | |

REACH 40B
SAN GABRIEL RIVER – I-10 FREEWAY TO THIENES AVENUE

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 10-Apr | 20-Apr | 1-May | 11-May | 22-May | 1-Jun | 14-Jun | 28-Jun | 12-Jul |
| Anna's Hummingbird (<i>Calypte anna</i>) | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 3 |
| Allen's Hummingbird (<i>Selasphorus sasin</i>) | | 1 | | | | | | | |
| Allen's/Rufous Hummingbird (<i>Selasphorus sp.</i>) | 3 | 1 | 4 | 1 | 2 | 2 | 1 | 3 | 1 |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | | | | | 1 | | | | |
| Downy Woodpecker (<i>Picoides pubescens</i>) | | | | | | | 1 | 1 | |
| American Kestrel (<i>Falco sparverius</i>) | 1 | | | 1 | 1 | 2 | 1 | | 1 |
| Yellow-chevroned Parakeet (<i>Brotogeris chiriri</i>)** | | | | | 6 | | 6 | | |
| Red-crowned Parrot (<i>Amazona viridigenalis</i>)* | | | | | | | 6 | | |
| Willow Flycatcher (<i>Empidonax traillii</i>) | | | | | | 1 | | | |
| Black Phoebe (<i>Sayornis nigricans</i>) | 5 | 6 | 4 | 6 | 4 | 3 | 5 | 8 | 5 |
| Say's Phoebe (<i>Sayornis saya</i>) | | | | | | | 1 | | |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | | | | 1 | | 1 | | | |
| Cassin's Kingbird (<i>Tyrannus vociferans</i>) | 2 | | | 2 | | 1 | 3 | 3 | 1 |
| Western Kingbird (<i>Tyrannus verticalis</i>) | 4 | 1 | | | | | | | |
| Bell's Vireo (<i>Vireo bellii</i>) | 7 | 6 | 6 | 8 | 5 | 5 | 5 | 6 | 4 |
| Warbling Vireo (<i>Vireo gilvus</i>) | | | | 14 | | | | | |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | | | | 1 | | 1 | 1 | 3 | 1 |
| American Crow (<i>Corvus brachyrhynchos</i>) | | 1 | 1 | | | | 4 | | 8 |
| Common Raven (<i>Corvus corax</i>) | 1 | | 1 | 4 | | 4 | 1 | 1 | 1 |
| Tree Swallow (<i>Tachycineta bicolor</i>) | | | | | | | | 2 | |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | 3 | 6 | 4 | 4 | 4 | 18 | 10 | 28 | 5 |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | 5 | 3 | 3 | 8 | 20 | 25 | 30 | 10 | 5 |
| Barn Swallow (<i>Hirundo rustica</i>) | 6 | 5 | 4 | 5 | 2 | 3 | 5 | 10 | 4 |
| Bushtit (<i>Psaltriparus minimus</i>) | 20 | 12 | 26 | 24 | 18 | 12 | 20 | 20 | 25 |
| Bewick's Wren (<i>Thryomanes bewickii</i>) | | | | | | | | | 1 |

**REACH 40B
SAN GABRIEL RIVER – I-10 FREEWAY TO THIENES AVENUE**

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 10-Apr | 20-Apr | 1-May | 11-May | 22-May | 1-Jun | 14-Jun | 28-Jun | 12-Jul |
| Blue-gray gnatcatcher (<i>Polioptila caerulea</i>) | 1 | | | | | | | | |
| Swainson's Thrush (<i>Catharus ustulatus</i>) | | | 2 | | | | | | |
| American Robin (<i>Turdus migratorius</i>) | 1 | | | 1 | | | | | |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | 9 | 7 | 6 | 7 | 4 | 6 | 6 | 8 | 9 |
| European Starling (<i>Sturnus vulgaris</i>)* | 5 | 12 | 5 | 3 | 5 | 13 | 10 | 14 | 15 |
| American Pipit (<i>Anthus rubescens</i>) | 8 | | | | | | | | |
| Cedar Waxwing (<i>Bombycilla cedrorum</i>) | | 12 | | | | | | | |
| Orange-crowned Warbler (<i>Oreothlypis celata</i>) | 2 | 1 | 1 | | | | | | |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | 18 | 15 | 11 | 16 | 12 | 13 | 14 | 10 | 4 |
| MacGillivray's Warbler (<i>Geothlypis tolmiei</i>) | | | | 1 | | | | | |
| Yellow Warbler (<i>Setophaga petechia</i>) | 5 | 11 | 17 | 12 | 12 | 12 | 13 | 14 | 9 |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 14 | 3 | | | | | | | |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | 1 | | 6 | 4 | | | | | |
| Yellow-breasted Chat (<i>Icteria virens</i>) | | | 1 | 2 | 1 | 2 | 2 | 1 | 1 |
| California Towhee (<i>Melospiza crissalis</i>) | 5 | 9 | 9 | 7 | 7 | 6 | 5 | 3 | 3 |
| Song Sparrow (<i>Melospiza lincolni</i>) | 20 | 18 | 23 | 26 | 20 | 18 | 13 | 7 | 3 |
| White-crowned Sparrow (<i>Zonotrichia leucophrys</i>) | 2 | | | | | | | | |
| Western Tanager (<i>Piranga ludoviciana</i>) | | | 1 | 3 | | | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | 2 | 3 | 3 | 1 | 1 | | 1 | | |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | | | | 1 | | 2 | 1 | 2 |
| Red-winged Blackbird (<i>Ageaius phoeniceus</i>) | 6 | | 12 | 2 | 5 | 1 | 8 | | |
| Great-tailed Grackle (<i>Quiscalus mexicanus</i>) | 12 | 10 | 15 | 13 | 15 | 15 | 15 | 13 | 10 |
| Brown-headed Cowbird (<i>Molothrus ater</i>) | | 6 | 2 | 1 | 1 | 2 | | | |
| Hooded Oriole (<i>Icterus cucullatus</i>) | 1 | | 2 | 2 | 1 | | 3 | 1 | 4 |
| Bullock's Oriole (<i>Icterus bullockii</i>) | 3 | 4 | 5 | 4 | 4 | 2 | 6 | 3 | 3 |

REACH 40B
SAN GABRIEL RIVER – I-10 FREEWAY TO THIENES AVENUE

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 10-Apr | 20-Apr | 1-May | 11-May | 22-May | 1-Jun | 14-Jun | 28-Jun | 12-Jul |
| House Finch (<i>Haemorhous mexicanus</i>) | 14 | 14 | 22 | 24 | 12 | 16 | 30 | 18 | 55 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 12 | 12 | 8 | 10 | 6 | 5 | 3 | 10 | 5 |
| American Goldfinch (<i>Spinus tristis</i>) | 10 | | 6 | | 2 | 2 | 4 | 1 | 5 |
| House Sparrow (<i>Passer domesticus</i>)* | 20 | 15 | 12 | 18 | 18 | 25 | 30 | 25 | 65 |
| Nutmeg Mannikin (<i>Lonchura punctulata</i> **) | | | | | | | 1 | | |
| Orange Bishop (<i>Euplectes franciscanus</i> **) | | | | | | | | | 2 |
| * Introduced non-native species with established breeding population in California | | | | | | | | | |
| ** Exotic or escaped non-native species that may or many not be breeding in California | | | | | | | | | |

**REACH 43A
SAN GABRIEL RIVER – UPPER**

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 10-Apr | 22-Apr | 1-May | 11-May | 22-May | 1-Jun | 14-Jun | 28-Jun | 12-Jul |
| Canada Goose (<i>Branta canadensis</i>) | | | 2 | | | | | | |
| Mallard (<i>Anas platyrhynchos</i>) | | 5 | 2 | | | 1 | 3 | | |
| Cinnamon Teal (<i>Anas cyanoptera</i>) | | 1 | | | | | | | |
| Pied-billed Grebe (<i>Podilymbus podiceps</i>) | | | | 1 | | | | | |
| Double-crested Cormorant (<i>Phalacrocorax auritus</i>) | | 1 | | | | | | | |
| Great Blue Heron (<i>Ardea herodias</i>) | 1 | 1 | 1 | | 1 | | 2 | | 2 |
| Great Egret (<i>Ardea alba</i>) | | 1 | | | | | 1 | | |
| Snowy Egret (<i>Egretta thula</i>) | | 1 | | | | | | 1 | |
| Green Heron (<i>Butorides virescens</i>) | | | | | | | | | |
| Black-crowned Night-Heron (<i>Nycticorax nycticorax</i>) | | | | | | 1 | | | 1 |
| Sharp-shinned Hawk (<i>Accipiter striatus</i>) | 2 | | | | | | | | |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | 1 | 1 | | | | | | 2 | |
| Red-shouldered Hawk (<i>Buteo lineatus</i>) | | 1 | | | 1 | | | 1 | |
| Red-tailed Hawk (<i>Buteo jamaicensis</i>) | 1 | | 1 | | | | | | |
| Common Gallinule (<i>Gallinula galeata</i>) | | | 1 | | 1 | | | | |
| American Coot (<i>Fulica americana</i>) | | 1 | | | | | | | |
| California Gull (<i>Larus californicus</i>) | | | 1 | | | | | | |
| Caspian Tern (<i>Hydroprogne caspia</i>) | | | | | | | | | 2 |
| Forster's Tern (<i>Sterna forsteri</i>) | | | | | | | | | |
| Rock Pigeon (<i>Columba livia</i>)* | | | 5 | | 4 | | | 1 | 1 |
| Eurasian Collared-Dove (<i>Streptopelia decaocta</i>) | | | | 1 | | | | | |
| Mourning Dove (<i>Zenaidura macroura</i>) | 1 | 2 | 2 | 2 | 5 | 5 | 5 | | |
| White-throated Swift (<i>Aeronautes saxatalis</i>) | 3 | 3 | | | 1 | | | | |
| Black-chinned Hummingbird (<i>Archilochus alexandri</i>) | | 2 | | 1 | | | | 1 | |
| Anna's Hummingbird (<i>Calypte anna</i>) | 2 | 4 | 3 | 3 | 1 | 1 | 2 | 1 | 2 |
| Allen's Hummingbird (<i>Selasphorus sasin</i>) | | 1 | 1 | | | | | | |

**REACH 43A
SAN GABRIEL RIVER – UPPER**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 10-Apr | 22-Apr | 1-May | 11-May | 22-May | 1-Jun | 14-Jun | 28-Jun | 12-Jul |
| Allen's/Rufous Hummingbird (<i>Selasphorus</i> sp.) | 3 | | 3 | 1 | | 3 | 3 | 3 | |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | | 2 | | 1 | 1 | | | 2 | 1 |
| Downy Woodpecker (<i>Picoides pubescens</i>) | 1 | | 2 | 1 | | 2 | 2 | 1 | |
| Yellow-chevroned Parakeet (<i>Brotoogeris chiriri</i>)** | | | | 5 | | | | | |
| Black Phoebe (<i>Sayornis nigricans</i>) | 4 | | 2 | 4 | 4 | 1 | 1 | 3 | 4 |
| Say's Phoebe (<i>Sayornis saya</i>) | | 1 | | | | | | | |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | | | 1 | | 1 | 1 | | | |
| Cassin's Kingbird (<i>Tyrannus vociferans</i>) | | | | | | | | | 1 |
| Western Kingbird (<i>Tyrannus verticalis</i>) | | 1 | | | | | | | |
| Bell's Vireo (<i>Vireo bellii</i>) | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 1 |
| Hutton's Vireo (<i>Vireo huttoni</i>) | | | | | | | | 1 | |
| Warbling Vireo (<i>Vireo gilvus</i>) | 1 | 3 | | 2 | 1 | | | | |
| American Crow (<i>Corvus brachyrhynchos</i>) | | 2 | | | | | 2 | 1 | 2 |
| Common Raven (<i>Corvus corax</i>) | 1 | | | 2 | 1 | | | | |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | 1 | 1 | 2 | | | 5 | 3 | 1 | |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | 30 | 3 | 5 | 12 | 4 | 10 | 20 | 3 | 5 |
| Barn Swallow (<i>Hirundo rustica</i>) | 1 | 5 | | 4 | | 3 | 5 | | 3 |
| Bushtit (<i>Psaltriparus minimus</i>) | 14 | 10 | 20 | 22 | 20 | 18 | 20 | 25 | 25 |
| House Wren (<i>Troglodytes aedon</i>) | 2 | 1 | | 2 | | | 2 | | |
| Bewick's Wren (<i>Thryomanes bewickii</i>) | | 2 | 2 | 1 | | | 1 | 1 | |
| Swainson's Thrush (<i>Catharus ustulatus</i>) | | | 1 | 3 | 3 | 3 | 1 | 1 | 1 |
| American Robin (<i>Turdus migratorius</i>) | 1 | 2 | 1 | | | 1 | | 1 | |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 |
| European Starling (<i>Sturnus vulgaris</i>)* | | | | | 2 | 45 | 1 | | |
| Cedar Waxwing (<i>Bombycilla cedrorum</i>) | | | 15 | 6 | | | | | |
| Orange-crowned Warbler (<i>Oreothlypis celata</i>) | 2 | 2 | 2 | 1 | 3 | 2 | | | |

**REACH 43A
SAN GABRIEL RIVER – UPPER**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 10-Apr | 22-Apr | 1-May | 11-May | 22-May | 1-Jun | 14-Jun | 28-Jun | 12-Jul |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | 22 | 15 | 19 | 10 | 10 | 12 | 4 | 3 | 3 |
| Yellow Warbler (<i>Setophaga petechia</i>) | 15 | 16 | 21 | 17 | 16 | 21 | 16 | 18 | 17 |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 15 | 3 | | | | | | | |
| Black-throated Gray Warbler (<i>Setophaga nigrescens</i>) | 2 | | | | | | | | |
| Townsend's Warbler (<i>Setophaga townsendi</i>) | | | | 1 | | | | | |
| Yellow-breasted Chat (<i>Icteria virens</i>) | 1 | 2 | 2 | 1 | 2 | 2 | 3 | 3 | 1 |
| Spotted Towhee (<i>Pipilo maculatus</i>) | 6 | 6 | 8 | 11 | 8 | 6 | 6 | 4 | 3 |
| California Towhee (<i>Melospiza crissalis</i>) | 2 | 7 | 5 | 4 | 5 | 2 | 5 | | 3 |
| Song Sparrow (<i>Melospiza lincolni</i>) | 18 | 18 | 30 | 21 | 16 | 14 | 4 | 3 | |
| Northern Cardinal (<i>Cardinalis cardinalis</i>)* | | | | | 1 | | | 1 | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | 2 | 3 | 4 | 3 | 3 | 2 | 2 | 2 | 2 |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | | 2 | 2 | 1 | | 1 | | 1 |
| Lazuli Bunting (<i>Passerina amoena</i>) | | | 2 | | | | | | |
| Red-winged Blackbird (<i>Agelaius phoeniceus</i>) | | | | | | 6 | | 1 | 1 |
| Brown-headed Cowbird (<i>Molothrus ater</i>) | 4 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 6 |
| Hooded Oriole (<i>Icterus cucullatus</i>) | | | | 1 | 4 | 1 | 1 | 2 | 2 |
| Bullock's Oriole (<i>Icterus bullockii</i>) | 1 | 2 | 1 | 1 | 2 | 3 | 1 | 2 | |
| House Finch (<i>Haemorhous mexicanus</i>) | 12 | 14 | 16 | 22 | 14 | 25 | 60 | 25 | 40 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 14 | 16 | 12 | 16 | 20 | 25 | 25 | 18 | 6 |
| American Goldfinch (<i>Spinus tristis</i>) | 6 | 5 | 5 | 1 | 5 | 10 | 1 | 2 | 15 |
| Nutmeg Mannikin (<i>Lonchura punctulata</i> **) | | | | | | | 3 | | 1 |

* Introduced non-native species with established breeding population in California
** Exotic or escaped non-native species that may or many not be breeding in California

**REACH 43B
SAN GABRIEL RIVER – LOWER**

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 10-Apr | 20-Apr | 1-May | 11-May | 22-May | 1-Jun | 14-Jun | 28-Jun | 12-Jul |
| Mallard (<i>Anas platyrhynchos</i>) | 1 | 4 | 25 | 4 | 2 | 1 | 3 | 2 | 3 |
| Double-crested Cormorant (<i>Phalacrocorax auritus</i>) | 1 | | | | | | 1 | | |
| Great Blue Heron (<i>Ardea herodias</i>) | 2 | 2 | | 1 | | | | | 1 |
| Great Egret (<i>Ardea alba</i>) | | | 1 | 1 | | | | | 2 |
| Snowy Egret (<i>Egretta thula</i>) | | | 1 | | 1 | | | 2 | 2 |
| Black-crowned Night-Heron (<i>Nycticorax nycticorax</i>) | | | | 3 | | | | 1 | |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | | 1 | 1 | | | | | | |
| Red-tailed Hawk (<i>Buteo jamaicensis</i>) | 1 | | 2 | | 1 | | | | |
| Common Gallinule (<i>Gallinula galeata</i>) | | | 50 | | | | | | |
| Killdeer (<i>Charadrius vociferous</i>) | 3 | 1 | | 1 | | 3 | | | |
| Spotted Sandpiper (<i>Actitis macularius</i>) | 1 | | | | | | | | |
| Western Gull (<i>Larus occidentalis</i>) | 1 | | | | 6 | | 2 | 5 | 2 |
| Rock Pigeon (<i>Columba livia</i>)* | 5 | 5 | 2 | 3 | | 3 | 6 | | 2 |
| Eurasian Collared-Dove (<i>Streptopelia decaocto</i>) | 5 | 4 | 1 | 5 | 4 | 1 | 3 | 3 | 6 |
| Mourning Dove (<i>Zenaidura macroura</i>) | 4 | 3 | 3 | 1 | 3 | 3 | 5 | 2 | 12 |
| White-throated Swift (<i>Aeronautes saxatalis</i>) | 4 | 2 | | 5 | | | | | |
| Anna's Hummingbird (<i>Calypte anna</i>) | 3 | 3 | 1 | 1 | 2 | 1 | 1 | 2 | 2 |
| Allen's Hummingbird (<i>Selasphorus sasin</i>) | 2 | | | | | | 1 | | |
| Allen's/Rufous Hummingbird (<i>Selasphorus</i> sp.) | | 4 | 1 | | 1 | 5 | 7 | 5 | 10 |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | 1 | | 1 | 2 | | | | | |
| Downy Woodpecker (<i>Picoides pubescens</i>) | | | 1 | | | 1 | | | |
| American Kestrel (<i>Falco sparverius</i>) | | | | 1 | | | | | |
| Black Phoebe (<i>Sayornis nigricans</i>) | 6 | 2 | 6 | 4 | 5 | 3 | 3 | 4 | 4 |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | 1 | 1 | | | 1 | | | | |
| Cassin's Kingbird (<i>Tyrannus vociferans</i>) | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |

**REACH 43B
SAN GABRIEL RIVER – LOWER**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 10-Apr | 20-Apr | 1-May | 11-May | 22-May | 1-Jun | 14-Jun | 28-Jun | 12-Jul |
| Western Kingbird (<i>Tyrannus verticalis</i>) | 1 | | | | | | 1 | | |
| Cassin's Vireo (<i>Vireo cassinii</i>) | | 1 | | 1 | | | | | |
| Warbling Vireo (<i>Vireo gilvus</i>) | | 1 | | | 1 | | | | |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | | | 1 | | | | | | |
| American Crow (<i>Corvus brachyrhynchos</i>) | | | 2 | | | | 1 | 2 | 5 |
| Common Raven (<i>Corvus corax</i>) | 2 | | | | 1 | | 1 | 2 | |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | 2 | 3 | 1 | | 2 | 4 | 5 | | 1 |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | 30 | 8 | 30 | 15 | 15 | 40 | 35 | 20 | 25 |
| Barn Swallow (<i>Hirundo rustica</i>) | 1 | 4 | 4 | 3 | 1 | 8 | 10 | 1 | 3 |
| Bushtit (<i>Psaltriparus minimus</i>) | 12 | 10 | 12 | 20 | 16 | 12 | 10 | 12 | 15 |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | 8 | 6 | 6 | 8 | 7 | 82 | 6 | 6 | 7 |
| European Starling (<i>Sturnus vulgaris</i>)* | 16 | 22 | 5 | 6 | 3 | 8 | | 5 | 1 |
| Cedar Waxwing (<i>Bombycilla cedrorum</i>) | 3 | 2 | | | | | | | |
| Orange-crowned Warbler (<i>Oreothlypis celata</i>) | 1 | | 1 | | | | | | |
| Nashville Warbler (<i>Vermivora ruficapilla</i>) | 1 | 2 | | | | | | | |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | 14 | 5 | 7 | 6 | 2 | 4 | 4 | 1 | 1 |
| Yellow Warbler (<i>Setophaga petechia</i>) | 3 | 8 | 10 | 11 | 8 | 8 | 9 | 9 | 4 |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 13 | 3 | | | | | | | |
| Black-throated Gray Warbler (<i>Setophaga nigrescens</i>) | 1 | 3 | | | | | | | |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | | 1 | 1 | | | | | | |
| Spotted Towhee (<i>Pipilo maculatus</i>) | | | 1 | | | 1 | | | |
| California Towhee (<i>Melospiza crissalis</i>) | 6 | 4 | 8 | 3 | 7 | 3 | 3 | 4 | 2 |
| Song Sparrow (<i>Melospiza lincolni</i>) | 12 | 9 | 10 | 13 | 16 | 8 | 5 | 4 | 1 |
| Lincoln's Sparrow (<i>Melospiza lincolni</i>) | 1 | | | | | | | | |
| White-crowned Sparrow (<i>Zonotrichia leucophrys</i>) | 5 | | | | | | | | |

**REACH 43B
SAN GABRIEL RIVER – LOWER**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 10-Apr | 20-Apr | 1-May | 11-May | 22-May | 1-Jun | 14-Jun | 28-Jun | 12-Jul |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | 2 | 2 | 1 | | 1 | 2 | 4 | 2 |
| Red-winged Blackbird (<i>Agelaius phoeniceus</i>) | 5 | 5 | | | 3 | | 8 | 20 | 14 |
| Brewer's Blackbird (<i>Euphagus cyanocephalus</i>) | | 3 | | | | | | | |
| Great-tailed Grackle (<i>Quiscalus mexicanus</i>) | 4 | | | | | | | | |
| Brown-headed Cowbird (<i>Molothrus ater</i>) | 6 | 12 | 3 | 2 | 3 | 6 | 2 | 1 | 2 |
| Hooded Oriole (<i>Icterus cucullatus</i>) | 6 | 2 | 4 | 3 | 1 | 1 | 1 | 2 | 4 |
| Bullock's Oriole (<i>Icterus bullockii</i>) | 1 | 1 | | | | | 2 | 2 | |
| House Finch (<i>Haemorhous mexicanus</i>) | 14 | 12 | 12 | 16 | 13 | 10 | 12 | 4 | 8 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 4 | 5 | 6 | 2 | 4 | 8 | 3 | 6 | 4 |
| American Goldfinch (<i>Spinus tristis</i>) | 5 | | | | 1 | | | | |
| House Sparrow (<i>Passer domesticus</i>)* | 5 | 4 | 10 | 8 | 12 | 4 | 5 | 10 | 5 |
| Nutmeg Mannikin (<i>Lonchura punctulata</i> **) | | | 1 | | | | 1 | 1 | 1 |
| * Introduced non-native species with established breeding population in California | | | | | | | | | |
| ** Exotic or escaped non-native species that may or many not be breeding in California | | | | | | | | | |

**REACH 71, 79, AND 80
SANTA CLARA RIVER MAIN CHANNEL (PD 1946)
SOUTH FORK – SANTA CLARA RIVER (VALENCIA BLVD. BRIDGE STABILIZER)
SOUTH FORK – SANTA CLARA RIVER (PD's 1947 & 1946)**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 11-Apr | 21-Apr | 3-May | 12-May | 23-May | 2-Jun | 16-Jun | 30-Jun | 13-Jul |
| Canada Goose (<i>Branta canadensis</i>) | | 1 | 4 | | | | | | |
| Mallard (<i>Anas platyrhynchos</i>) | | | 1 | | | | | | |
| California Quail (<i>Callipepla californica</i>) | 8 | 12 | 6 | 3 | 5 | | 6 | 5 | 2 |
| Red-tailed Hawk (<i>Buteo jamaicensis</i>) | | | | 1 | 1 | 1 | | | |
| Killdeer (<i>Charadrius vociferous</i>) | | 2 | 1 | 2 | | 1 | | | |
| Western Gull (<i>Larus occidentalis</i>) | | 1 | | | | | | | |
| Mourning Dove (<i>Zenaidura macroura</i>) | 4 | 15 | 10 | 2 | 6 | 6 | 19 | 6 | 15 |
| Anna's Hummingbird (<i>Calypte anna</i>) | 2 | 2 | 2 | 2 | 4 | 6 | 4 | 4 | 4 |
| Costa's Hummingbird (<i>Calypte costae</i>) | | | | | | 1 | | | 1 |
| Allen's/Rufous Hummingbird (<i>Selasphorus</i> sp.) | 1 | 1 | | | | | | | 2 |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | 4 | 2 | 3 | 3 | 2 | 1 | 1 | 3 | 1 |
| Downy Woodpecker (<i>Picoides pubescens</i>) | | | | 1 | | | 1 | | 1 |
| Black Phoebe (<i>Sayornis nigricans</i>) | | | | | 1 | | 2 | 1 | 3 |
| Say's Phoebe (<i>Sayornis saya</i>) | 2 | | 2 | 2 | 3 | | 1 | 1 | 1 |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | 1 | 4 | 2 | 3 | 3 | 2 | | 2 | 3 |
| Cassin's Kingbird (<i>Tyrannus vociferans</i>) | 2 | 2 | 3 | 4 | 5 | 6 | 6 | 4 | 3 |
| Western Kingbird (<i>Tyrannus verticalis</i>) | 2 | 1 | 1 | 2 | | 2 | 1 | 1 | |
| Loggerhead Shrike (<i>Lanius ludovicianus</i>) | | 1 | | | | | | | |
| Bell's Vireo (<i>Vireo bellii</i>) | 1 | | | | | | | | |
| Warbling Vireo (<i>Vireo gilvus</i>) | | | | | 1 | | | | |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | 5 | 3 | 4 | 6 | 5 | 8 | 9 | 5 | 4 |
| American Crow (<i>Corvus brachyrhynchos</i>) | | | 2 | 1 | | 2 | 35 | 10 | 4 |
| Common Raven (<i>Corvus corax</i>) | 10 | 12 | 16 | 8 | 6 | 3 | 4 | 10 | 3 |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | 2 | 3 | 2 | 3 | 2 | 4 | 2 | | 2 |

REACH 71, 79, AND 80
SANTA CLARA RIVER MAIN CHANNEL (PD 1946)
SOUTH FORK – SANTA CLARA RIVER (VALENCIA BLVD. BRIDGE STABILIZER)
SOUTH FORK – SANTA CLARA RIVER (PD's 1947 & 1946)

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 11-Apr | 21-Apr | 3-May | 12-May | 23-May | 2-Jun | 16-Jun | 30-Jun | 13-Jul |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | | | | 3 | 25 | 12 | 10 | 10 | |
| Barn Swallow (<i>Hirundo rustica</i>) | 1 | 1 | | | 1 | | | | |
| Oak Titmouse (<i>Baeolophus inornatus</i>) | | 1 | 2 | | | | 2 | | 3 |
| Bushtit (<i>Psaltriparus minimus</i>) | 8 | 8 | 8 | 25 | 18 | | 10 | 18 | 12 |
| Bewick's Wren (<i>Thryomanes bewickii</i>) | 8 | 13 | 9 | 11 | 13 | 7 | 6 | 6 | 3 |
| Wrentit (<i>Chamaea fasciata</i>) | 1 | | | | | | | | |
| Western Bluebird (<i>Sialia mexicana</i>) | | | | 2 | | | | 2 | |
| American Robin (<i>Turdus migratorius</i>) | 1 | | | | | | | 1 | |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | | 3 | | 4 | 1 | 3 | 1 | 4 | 2 |
| California Thrasher (<i>Toxostoma redivivum</i>) | 4 | 6 | | 1 | 2 | 2 | 2 | | 2 |
| European Starling (<i>Sturnus vulgaris</i>)* | 2 | 5 | 10 | 7 | 8 | | 3 | | |
| American Pipit (<i>Anthus rubescens</i>) | | 1 | | | | | | | |
| Cedar Waxwing (<i>Bombycilla cedrorum</i>) | | | 5 | 3 | 2 | | | | |
| Phainopepla (<i>Phainopepla nitens</i>) | | | | 1 | | | 1 | | |
| Orange-crowned Warbler (<i>Oreothlypis celata</i>) | 4 | 1 | | | | | | | |
| MacGillivray's Warbler (<i>Geothlypis tolmiei</i>) | | 1 | | | | | | | |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | | 1 | | | | | | | |
| Yellow Warbler (<i>Setophaga petechia</i>) | 2 | 1 | 2 | 2 | 3 | 2 | 1 | 2 | |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 14 | 6 | 2 | | | | | | |
| Black-throated Gray Warbler (<i>Setophaga nigrescens</i>) | 1 | | | | | | | | |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | 1 | 2 | 4 | | 1 | | | | |
| Spotted Towhee (<i>Pipilo maculatus</i>) | 1 | 3 | 3 | 2 | 1 | 2 | 2 | 2 | |
| California Towhee (<i>Melospiza crissalis</i>) | 6 | 8 | 7 | 7 | 9 | 6 | 4 | 4 | 1 |
| Song Sparrow (<i>Melospiza lincolni</i>) | 4 | | 1 | 2 | 3 | 1 | | 1 | |

**REACH 71, 79, AND 80
SANTA CLARA RIVER MAIN CHANNEL (PD 1946)
SOUTH FORK – SANTA CLARA RIVER (VALENCIA BLVD. BRIDGE STABILIZER)
SOUTH FORK – SANTA CLARA RIVER (PD's 1947 & 1946)**

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 11-Apr | 21-Apr | 3-May | 12-May | 23-May | 2-Jun | 16-Jun | 30-Jun | 13-Jul |
| Lincoln's sparrow (<i>Melospiza lincolni</i>) | 2 | | | | | | | | |
| White-crowned Sparrow (<i>Zonotrichia leucophrys</i>) | 12 | 5 | | | | | | | |
| Western Tanager (<i>Piranga ludoviciana</i>) | | | 2 | | 4 | 1 | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | 1 | 4 | 2 | 2 | 2 | 1 | | | |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | | | | | | | 1 | |
| Brewer's Blackbird (<i>Euphagus cyanocephalus</i>) | 1 | 1 | | 3 | 5 | 3 | | 10 | |
| Great-tailed Grackle (<i>Quiscalus mexicanus</i>) | | | | | | | | 2 | |
| Brown-headed Cowbird (<i>Molothrus ater</i>) | | 1 | | | | | | | |
| Hooded Oriole (<i>Icterus cucullatus</i>) | | | | | 1 | | 1 | | |
| Bullock's Oriole (<i>Icterus bullockii</i>) | 3 | | 1 | 1 | | 2 | 1 | | |
| House Finch (<i>Haemorhous mexicanus</i>) | 23 | 18 | 16 | 24 | 26 | 16 | 28 | 18 | 12 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 5 | 3 | 2 | 4 | 3 | 2 | 3 | 5 | 2 |
| Lawrence's Goldfinch (<i>Spinus lawrencei</i>) | | | 1 | | | | 1 | | |
| House Sparrow (<i>Passer domesticus</i>)* | | | | | | | 2 | | |

* Introduced non-native species with established breeding population in California

REACH 75
SOUTH FORK – SCR (PD's 725, 916, 1041 ,& 1300)

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 11-Apr | 21-Apr | 3-May | 12-May | 23-May | 2-Jun | 16-Jun | 30-Jun | 13-Jul |
| Mallard (<i>Anas platyrhynchos</i>) | 2 | | | | | | | | |
| California Quail (<i>Callipepla californica</i>) | 3 | 2 | 6 | 5 | 10 | 6 | 3 | | |
| Double-crested cormorant (<i>Phalacrocorax auritus</i>) | 1 | | | | | | | | |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | 1 | | 1 | | | | 1 | | |
| Red-shouldered Hawk (<i>Buteo lineatus</i>) | | | 1 | | | | 1 | | 1 |
| Rock Pigeon (<i>Columba livia</i>)* | 40 | | | 2 | | | | 1 | |
| Mourning Dove (<i>Zenaidura macroura</i>) | 3 | 3 | 4 | 4 | 3 | 6 | 12 | | 8 |
| Greater Roadrunner (<i>Geococcyx californianus</i>) | 1 | | | | | | | | |
| White-throated Swift (<i>Aeronautes saxatalis</i>) | 4 | 10 | 10 | 4 | 5 | 8 | 4 | 5 | |
| Black-chinned Hummingbird (<i>Archilochus alexandri</i>) | 1 | 1 | | | | 3 | 1 | 1 | 1 |
| Anna's Hummingbird (<i>Calypte anna</i>) | 3 | 3 | 2 | 3 | 4 | 6 | 5 | 5 | 7 |
| Allen's/Rufous Hummingbird (<i>Selasphorus</i> sp.) | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 2 |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | 1 | 2 | 2 | 1 | 2 | 3 | 1 | | 1 |
| Downy Woodpecker (<i>Picoides pubescens</i>) | 2 | | | | | | 1 | | |
| American Kestrel (<i>Falco sparverius</i>) | 1 | 1 | | | | | 1 | | |
| Western Wood-Pewee (<i>Contopus sordidulus</i>) | | | | | 1 | | | | |
| Black Phoebe (<i>Sayornis nigricans</i>) | 6 | 2 | 3 | 3 | 4 | 8 | 4 | 4 | 7 |
| Say's Phoebe (<i>Sayornis saya</i>) | 1 | | | 2 | | | | | |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | | | | | | 1 | | | |
| Cassin's Kingbird (<i>Tyrannus vociferans</i>) | 6 | 5 | 6 | 3 | 5 | 5 | 7 | 4 | 3 |
| Western Kingbird (<i>Tyrannus verticalis</i>) | 2 | 1 | | | 1 | 1 | | | |
| Warbling Vireo (<i>Vireo gilvus</i>) | | 2 | 4 | | | 1 | | | |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | 6 | 3 | 4 | 2 | 4 | 6 | 5 | 8 | 6 |
| American Crow (<i>Corvus brachyrhynchos</i>) | 2 | 1 | | | 1 | 4 | 2 | 1 | |

REACH 75
SOUTH FORK – SCR (PD's 725, 916, 1041 ,& 1300)

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 11-Apr | 21-Apr | 3-May | 12-May | 23-May | 2-Jun | 16-Jun | 30-Jun | 13-Jul |
| Common Raven (<i>Corvus corax</i>) | 12 | 4 | 3 | 4 | 4 | 10 | 3 | 3 | 5 |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | 10 | 2 | 8 | 3 | 2 | 3 | 4 | 2 | 1 |
| Barn Swallow (<i>Hirundo rustica</i>) | | 2 | | | | | | | |
| Oak Titmouse (<i>Baeolophus inornatus</i>) | | | 3 | | 1 | 4 | 6 | 2 | |
| Bushtit (<i>Psaltriparus minimus</i>) | 12 | 12 | 10 | 20 | 14 | 22 | 12 | 24 | 15 |
| Bewick's Wren (<i>Thryomanes bewickii</i>) | 7 | 11 | 9 | 11 | 8 | 11 | 6 | 5 | 2 |
| Wrentit (<i>Chamaea fasciata</i>) | 2 | 1 | 1 | | 1 | 1 | 1 | 1 | |
| Western Bluebird (<i>Sialia mexicana</i>) | 1 | | 3 | 1 | 1 | 2 | 1 | 3 | |
| California Thrasher (<i>Toxostoma redivivum</i>) | 6 | 6 | 4 | 2 | 4 | 2 | 2 | 6 | 1 |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | 3 | 4 | 3 | 5 | 5 | 7 | 5 | 6 | 4 |
| American Pipit (<i>Anthus rubescens</i>) | 1 | | | | | | | | |
| Orange-crowned Warbler (<i>Oreothlypis celata</i>) | | 3 | | | | | | | |
| Cedar Waxwing (<i>Bombycilla cedrorum</i>) | | | 3 | | | | | | |
| Nashville Warbler (<i>Oreothlypis ruficapilla</i>) | | 2 | | | | | | | |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | | | | | | 1 | | | |
| Yellow Warbler (<i>Setophaga petechia</i>) | | | 1 | | 2 | | 1 | | |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 13 | 13 | 1 | | | | | | |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | | 2 | 2 | | 1 | | | | |
| Black-throated Gray Warbler (<i>Setophaga nigrescens</i>) | 1 | 2 | | | | | | | |
| Spotted Towhee (<i>Pipilo maculatus</i>) | | | 3 | 2 | | | 2 | 2 | |
| California Towhee (<i>Melospiza crissalis</i>) | 8 | 8 | 7 | 6 | 7 | 6 | 5 | 6 | 3 |
| Lark Sparrow (<i>Chondestes grammacus</i>) | | | | | | | | 1 | |
| Song Sparrow (<i>Melospiza lincolni</i>) | 2 | 3 | 5 | 3 | 3 | 5 | 2 | 3 | 4 |
| White-crowned Sparrow (<i>Zonotrichia leucophrys</i>) | 8 | 1 | | | | | | | |

REACH 75
SOUTH FORK – SCR (PD's 725, 916, 1041 ,& 1300)

| Species | Survey Dates – 2013 | | | | | | | | |
|---|---------------------|--------|-------|--------|--------|-------|--------|--------|--------|
| | 11-Apr | 21-Apr | 3-May | 12-May | 23-May | 2-Jun | 16-Jun | 30-Jun | 13-Jul |
| Western Tanager (<i>Piranga ludoviciana</i>) | | 1 | 9 | 6 | 6 | | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | | 4 | 1 | 1 | 1 | 4 | 2 | 1 | |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | | | | | 1 | 1 | 1 | 1 |
| Lazuli Bunting (<i>Passerina amoena</i>) | | | 1 | | | | | | |
| Brown-headed Cowbird (<i>Molothrus ater</i>) | 1 | | | | 1 | | | | |
| Hooded Oriole (<i>Icterus cucullatus</i>) | 2 | 2 | 2 | 2 | | 1 | | 1 | 3 |
| Bullock's Oriole (<i>Icterus bullockii</i>) | 3 | 6 | 5 | 2 | 4 | 6 | 6 | 2 | 2 |
| House Finch (<i>Haemorhous mexicanus</i>) | 14 | 18 | 18 | 25 | 28 | 22 | 60 | 16 | 20 |
| Pine Siskin (<i>Carduelis pinus</i>) | | 3 | | | | | | | |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 5 | | 5 | 4 | 3 | 6 | 8 | 1 | 2 |
| American Goldfinch (<i>Spinus tristis</i>) | 50 | 20 | 2 | | | | | | |
| House Sparrow (<i>Passer domesticus</i>)* | 5 | 4 | 8 | 6 | 6 | 6 | 5 | 3 | 5 |

* Introduced non-native species with established breeding population in California

**REACHES 82 AND 109
SANTA CLARA RIVER MAIN CHANNEL (PD 2278)
AND
SANTA CLARA RIVER – SOUTH BANK WEST OF MCBRAN PKWY (MTD 1510)**

| Species | Survey Dates - 2013 | | | | | | | | |
|---|---------------------|--------|-------|--------|--------|--------|--------|--------|-------|
| | 10-Apr | 23-Apr | 3-May | 13-May | 24-May | 11-Jun | 18-Jun | 26-Jun | 9-Jul |
| Mallard (<i>Anas platyrhynchos</i>) | | | | | 2 | | 1 | | |
| California Quail (<i>Callipepla californica</i>) | 13 | | | 14 | 5 | 2 | 20 | 5 | |
| Great Blue Heron (<i>Ardea herodias</i>) | | | | | | 1 | | | |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | | | 1 | | | 1 | 1 | | |
| Red-shouldered Hawk (<i>Buteo lineatus</i>) | 2 | | 1 | | 2 | 2 | 1 | 2 | 2 |
| Rock Pigeon (<i>Columba livia</i>)* | | | | | | | | | |
| Mourning Dove (<i>Zenaida macroura</i>) | 2 | | 4 | 6 | | 3 | 7 | 1 | |
| Greater Roadrunner (<i>Geococcyx californianus</i>) | | | | | | | | | 1 |
| Black-chinned Hummingbird (<i>Archilochus alexandri</i>) | | | | | | 1 | | | |
| Anna's Hummingbird (<i>Calypte anna</i>) | 3 | 2 | 6 | 8 | 1 | 1 | 3 | 3 | 3 |
| Allen's/Rufous Hummingbird (<i>Selasphorus</i> sp.) | | | | | | | 1 | | 2 |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | 6 | | 4 | 4 | 6 | 5 | 5 | 8 | 5 |
| Downy Woodpecker (<i>Picoides pubescens</i>) | | | | | 1 | | 1 | 2 | 3 |
| Hairy Woodpecker (<i>Picoides villosus</i>) | | | | | 1 | | 2 | 1 | |
| Northern Flicker (<i>Colaptes auratus</i>) | | 1 | | | | | | | |
| Western Wood-Pewee (<i>Contopus sordidulus</i>) | | | 4 | | 1 | | | | |
| Willow Flycatcher (<i>Empidonax traillii</i>) | | | | | | | 2 | | |
| Black Phoebe (<i>Sayornis nigricans</i>) | 2 | 2 | 2 | 3 | 4 | 4 | 3 | 5 | 2 |
| Say's Phoebe (<i>Sayornis saya</i>) | | | | | 1 | | 1 | 1 | |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | 1 | 2 | 3 | 5 | 5 | 6 | 8 | 7 | 7 |
| Cassin's Vireo (<i>Vireo cassinii</i>) | 1 | | | | | | | | |
| Warbling Vireo (<i>Vireo gilvus</i>) | | | | 1 | 2 | | | | |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | 4 | | 2 | 6 | 9 | 9 | 6 | 4 | 2 |

**REACHES 82 AND 109
SANTA CLARA RIVER MAIN CHANNEL (PD 2278)
AND
SANTA CLARA RIVER – SOUTH BANK WEST OF MCBRAN PKWY (MTD 1510)**

| Species | Survey Dates - 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|--------|--------|--------|-------|
| | 10-Apr | 23-Apr | 3-May | 13-May | 24-May | 11-Jun | 18-Jun | 26-Jun | 9-Jul |
| American Crow (<i>Corvus brachyrhynchos</i>) | | | | | 4 | 7 | 3 | 8 | 5 |
| Common Raven (<i>Corvus corax</i>) | 4 | 2 | 5 | 5 | 11 | 8 | 8 | 8 | 5 |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | | | | 2 | 2 | 8 | 4 | 2 | |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | | | | | 2 | 4 | 5 | 6 | |
| Barn Swallow (<i>Hirundo rustica</i>) | | | 4 | | | | | | |
| Oak Titmouse (<i>Baeolophus inornatus</i>) | | | | 2 | 3 | 3 | 3 | 7 | 1 |
| Bushtit (<i>Psaltriparus minimus</i>) | 10 | 6 | 15 | 26 | 15 | | 8 | | 10 |
| White-breasted Nuthatch (<i>Sitta carolinensis</i>) | | | | | | | | | 1 |
| House Wren (<i>Troglodytes aedon</i>) | 3 | | | | 3 | | | 2 | 1 |
| Bewick's Wren (<i>Thryomanes bewickii</i>) | 3 | | 10 | 6 | 8 | 7 | 10 | 15 | 9 |
| Wrentit (<i>Chamaea fasciata</i>) | | | | | | | 4 | 2 | |
| Swainson's Thrush (<i>Catharus ustulatus</i>) | | | | | 1 | | | | |
| American Robin (<i>Turdus migratorius</i>) | | | 1 | | 1 | 1 | 3 | | 1 |
| California Thrasher (<i>Toxostoma redivivum</i>) | | | | | 4 | 2 | 10 | 4 | 7 |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | | 1 | 2 | 2 | 5 | 1 | 3 | 1 | |
| European Starling (<i>Sturnus vulgaris</i>)* | | | | | | | 2 | 1 | |
| Phainopepla (<i>Phainopepla nitens</i>) | | | | 2 | 1 | | 1 | | 1 |
| Orange-crowned Warbler (<i>Oreothlypis celata</i>) | | | 1 | | | | | | |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | | | 2 | | 7 | 6 | 10 | | 4 |
| Yellow Warbler (<i>Setophaga petechia</i>) | 1 | | 1 | 2 | 16 | 6 | 6 | 6 | 1 |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 15 | | | | | | | | |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | | | 2 | 2 | 1 | | | | |
| Spotted Towhee (<i>Pipilo maculatus</i>) | 3 | 2 | 6 | 4 | 13 | 10 | 19 | 13 | 8 |
| California Towhee (<i>Melospiza crissalis</i>) | 4 | 2 | 4 | 5 | 4 | 6 | 1 | 1 | 1 |

**REACHES 82 AND 109
SANTA CLARA RIVER MAIN CHANNEL (PD 2278)
AND
SANTA CLARA RIVER – SOUTH BANK WEST OF MCBRAN PKWY (MTD 1510)**

| Species | Survey Dates - 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|--------|--------|--------|-------|
| | 10-Apr | 23-Apr | 3-May | 13-May | 24-May | 11-Jun | 18-Jun | 26-Jun | 9-Jul |
| Song Sparrow (<i>Melospiza lincolni</i>) | | 1 | 10 | 8 | 25 | 6 | 6 | 4 | 7 |
| White-crowned Sparrow (<i>Zonotrichia leucophrys</i>) | 5 | | | | | | | | |
| Western Tanager (<i>Piranga ludoviciana</i>) | | | | 1 | 1 | | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | 1 | | 2 | 2 | 10 | 13 | 6 | 8 | 6 |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | | | | | | 1 | | |
| Hooded Oriole (<i>Icterus cucullatus</i>) | | | | | | 1 | | | |
| Bullock's Oriole (<i>Icterus bullockii</i>) | 2 | | 4 | | | | 2 | | |
| House Finch (<i>Haemorhous mexicanus</i>) | 6 | | 8 | 15 | 12 | 22 | 32 | 30 | 65 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 4 | 6 | 10 | 14 | 6 | 7 | 3 | 5 | 8 |
| American Goldfinch (<i>Spinus tristis</i>) | | | | | | | 1 | | |
| Nutmeg Mannikin (<i>Lonchura punctulata</i>)** | | | | | | | | 1 | |
| * Introduced non-native species with established breeding population in California | | | | | | | | | |
| ** Exotic or escaped non-native species that may or many not be breeding in California | | | | | | | | | |

**REACHES 87 AND 97
CASTAIC – OLD ROAD DRAIN (CDR 525.012D) OUTLET
AND
CASTAIC CREEK – THE OLD ROAD 2**

| Species | Survey Dates – 2013 | | | | | | | |
|--|---------------------|--------|-------|--------|-------|--------|-------|--------|
| | 16-Apr | 29-Apr | 9-May | 22-May | 7-Jun | 18-Jun | 2-Jul | 12-Jul |
| Canada Goose (<i>Branta canadensis</i>) | | 2 | | | | | | |
| California Quail (<i>Callipepla californica</i>) | 6 | 6 | 5 | | | 1 | 2 | |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | | | | | 1 | | | |
| Red-shouldered Hawk (<i>Buteo lineatus</i>) | 1 | 1 | 1 | | | | | |
| Killdeer (<i>Charadrius vociferous</i>) | | | 2 | | | | | |
| Mourning Dove (<i>Zenaidura macroura</i>) | | 2 | 4 | | 2 | 2 | 3 | 3 |
| Anna's Hummingbird (<i>Calypte anna</i>) | 2 | 4 | 4 | 2 | 4 | 3 | 2 | 3 |
| Allen's/Rufous Hummingbird (<i>Selasphorus</i> sp.) | | | | 1 | | | 2 | |
| Acorn Woodpecker (<i>Melanerpes formicivorus</i>) | | | 1 | | | | | |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | | | 2 | 1 | 3 | 2 | | 3 |
| Western Wood-Pewee (<i>Contopus sordidulus</i>) | | | 2 | | | | | |
| Black Phoebe (<i>Sayornis nigricans</i>) | | | | 1 | 1 | | 2 | |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | | 1 | 3 | 1 | 1 | 4 | | |
| Warbling Vireo (<i>Vireo gilvus</i>) | | | | 1 | | | | |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | | 2 | 2 | 4 | 4 | 7 | 7 | 2 |
| American Crow (<i>Corvus brachyrhynchos</i>) | | | | 3 | 8 | 8 | 2 | |
| Common Raven (<i>Corvus corax</i>) | 2 | 2 | 4 | 4 | | 2 | 1 | 1 |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | 2 | 5 | 2 | 4 | 10 | 1 | | |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | 5 | | | 7 | | | | |
| Barn Swallow (<i>Hirundo rustica</i>) | | 2 | | | | | | |
| Oak Titmouse (<i>Baeolophus inornatus</i>) | | 1 | 1 | | | | | |
| Bushtit (<i>Psaltiriparus minimus</i>) | 8 | 10 | 10 | | | | | |
| Bewick's Wren (<i>Thryomanes bewickii</i>) | | 2 | 4 | 4 | | 2 | 1 | 3 |
| California Thrasher (<i>Toxostoma redivivum</i>) | | | | 2 | | | | |

**REACHES 87 AND 97
CASTAIC – OLD ROAD DRAIN (CDR 525.012D) OUTLET
AND
CASTAIC CREEK – THE OLD ROAD 2**

| Species | Survey Dates – 2013 | | | | | | | |
|---|---------------------|--------|-------|--------|-------|--------|-------|--------|
| | 16-Apr | 29-Apr | 9-May | 22-May | 7-Jun | 18-Jun | 2-Jul | 12-Jul |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | | | 1 | | | | | |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | 1 | | | | 1 | 3 | 3 | 1 |
| Yellow Warbler (<i>Dendroica petechia</i>) | | | | 2 | | | | |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 3 | | 1 | | | | | |
| Spotted Towhee (<i>Pipilo maculatus</i>) | 2 | | 2 | | 3 | 1 | | 2 |
| California Towhee (<i>Melospiza crissalis</i>) | | 2 | 6 | | 4 | 2 | 1 | |
| Song Sparrow (<i>Melospiza lincolni</i>) | 3 | 1 | | 2 | 1 | 2 | 1 | |
| White-crowned Sparrow (<i>Zonotrichia leucophrys</i>) | 2 | | | | | | | |
| Western Tanager (<i>Piranga ludoviciana</i>) | | | 2 | | | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | | 1 | 1 | 2 | 1 | 1 | | |
| Red-winged Blackbird (<i>Ageaius phoeniceus</i>) | | 2 | | | | | | |
| House Finch (<i>Haemorhous mexicanus</i>) | | 4 | 10 | 2 | 12 | | 7 | 13 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | | | 5 | 6 | 1 | | 2 | 2 |
| American Goldfinch (<i>Spinus tristis</i>) | | | 5 | | | | | |
| House Sparrow (<i>Passer domesticus</i>)* | | | | 1 | | | | |

* Introduced non-native species with established breeding population in California

**REACH 103
BOUQUET CANYON CHANNEL (PD 2225)**

| Species | Survey Dates – 2013 | | | | | | | |
|--|---------------------|--------|-------|--------|--------|--------|--------|--------|
| | 11-Apr | 24-Apr | 7-May | 30-May | 13-Jun | 20-Jun | 27-Jun | 10-Jul |
| Mallard (<i>Anas platyrhynchos</i>) | | 2 | | | 2 | 2 | 2 | |
| California Quail (<i>Callipepla californica</i>) | | 8 | 10 | | | | | |
| Red-tailed Hawk (<i>Buteo jamaicensis</i>) | | 2 | | | | | | |
| Red-shouldered Hawk (<i>Buteo lineatus</i>) | 1 | | | | | | | |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | | | | | 1 | | 1 | |
| Rock Pigeon (<i>Columba livia</i>)* | | | | | 1 | | | |
| Mourning Dove (<i>Zenaida macroura</i>) | | | 2 | 2 | 3 | | 2 | 1 |
| White-throated Swift (<i>Aeronautes saxatalis</i>) | | 3 | | | | | | |
| Anna's Hummingbird (<i>Calypte anna</i>) | 4 | 4 | 2 | 1 | 3 | 2 | 3 | 2 |
| Costa's Hummingbird (<i>Calypte costae</i>) | | | | | | 2 | | |
| Allen's Hummingbird (<i>Selasphorus sasin</i>) | 2 | 2 | 2 | 1 | | | | |
| Allen's/Rufous Hummingbird (<i>Selasphorus sp.</i>) | | | | 3 | 1 | 1 | 2 | 1 |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | | 2 | 1 | 1 | 1 | 1 | | 1 |
| Black Phoebe (<i>Sayornis nigricans</i>) | | 1 | 2 | 1 | 1 | 1 | 3 | |
| Say's Phoebe (<i>Sayornis saya</i>) | | | | | 1 | | | |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | 1 | 1 | 2 | | 1 | | | |
| Cassin's Kingbird (<i>Tyrannus vociferans</i>) | | | | | | | 1 | |
| Warbling Vireo (<i>Vireo gilvus</i>) | | | 1 | | | | | |
| Killdeer (<i>Charadrius vociferous</i>) | | | | | 1 | | | |
| American Robin (<i>Turdus migratorius</i>) | | | 1 | | | | | |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | | 1 | | | 1 | | | 2 |
| American Crow (<i>Corvus brachyrhynchos</i>) | | | | 2 | | 4 | 3 | 3 |
| Common Raven (<i>Corvus corax</i>) | 5 | 2 | 2 | 8 | 4 | 2 | 8 | 6 |
| Violet-green Swallow (<i>Tachycineta thalassina</i>) | | | | | | | | 1 |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | 2 | 2 | 4 | 2 | 2 | | 2 | 5 |

**REACH 103
BOUQUET CANYON CHANNEL (PD 2225)**

| Species | Survey Dates – 2013 | | | | | | | |
|---|---------------------|--------|-------|--------|--------|--------|--------|--------|
| | 11-Apr | 24-Apr | 7-May | 30-May | 13-Jun | 20-Jun | 27-Jun | 10-Jul |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | 4 | | | | 2 | 3 | 2 | |
| Barn Swallow (<i>Hirundo rustica</i>) | | | | | | | | 1 |
| Oak Titmouse (<i>Baeolophus inornatus</i>) | | | | | | | | 2 |
| Bushtit (<i>Psaltirparus minimus</i>) | | 15 | 10 | 15 | 2 | | | |
| Bewick's Wren (<i>Thryomanes bewickii</i>) | | 6 | 6 | 1 | 2 | 1 | 1 | 5 |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | 2 | | | 2 | 4 | 3 | 3 | 3 |
| Yellow Warbler (<i>Dendroica petechia</i>) | | | | 1 | 2 | | 1 | |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 5 | | | | | | | |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | | | 3 | | | | | |
| Spotted Towhee (<i>Pipilo maculatus</i>) | 3 | 2 | 6 | 3 | 1 | 1 | | 2 |
| California Towhee (<i>Melospiza crissalis</i>) | | 2 | 6 | 1 | 1 | 1 | 2 | 1 |
| Song Sparrow (<i>Melospiza lincolni</i>) | 10 | 10 | 6 | 8 | 10 | 8 | 9 | 5 |
| White-crowned Sparrow (<i>Zonotrichia leucophrys</i>) | 3 | | | | | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | 1 | | 3 | 3 | 2 | 1 | 1 | |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | | | | | 1 | | 1 |
| Brewer's Blackbird (<i>Euphagus cyanocephalus</i>) | | | | | 1 | | | |
| Bullock's Oriole (<i>Icterus bullockii</i>) | 2 | | | | | | | |
| House Finch (<i>Haemorhous mexicanus</i>) | 10 | 10 | 5 | 6 | 11 | 8 | 15 | 13 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 12 | 10 | 6 | 1 | 2 | | 3 | 1 |
| Lawrence's Goldfinch (<i>Spinus lawrencei</i>) | | 2 | | | | | | |
| House Sparrow (<i>Passer domesticus</i>)* | 2 | | 2 | | | 1 | | |

* Introduced non-native species with established breeding population in California

**REACH 104
CASTAIC CREEK (PD 2441 UNITS 1 AND 2)**

| Species | Survey Dates – 2013 | | | | | | | |
|--|---------------------|--------|-------|--------|-------|--------|-------|--------|
| | 16-Apr | 29-Apr | 9-May | 22-May | 7-Jun | 18-Jun | 2-Jun | 12-Jul |
| California Quail (<i>Callipepla californica</i>) | | | 3 | 3 | | | 8 | |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | | | 1 | | | | | |
| Greater Roadrunner (<i>Geococcyx californianus</i>) | | | | | 1 | | | |
| Mourning Dove (<i>Zenaida macroura</i>) | | | | 1 | | 3 | | 3 |
| Anna's Hummingbird (<i>Calypte anna</i>) | | | 2 | 7 | 4 | 2 | 2 | 3 |
| Allen's Hummingbird (<i>Selasphorus sasin</i>) | | | 1 | | | | | |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | | | 1 | 3 | 2 | 2 | 2 | 6 |
| Black Phoebe (<i>Sayornis nigricans</i>) | | 1 | | | | | | 2 |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | | 1 | 1 | 3 | 2 | 3 | 4 | 6 |
| Western Kingbird (<i>Tyrannus verticalis</i>) | | | | 2 | 2 | | | |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | | | | 6 | 3 | 1 | 7 | 4 |
| American Crow (<i>Corvus brachyrhynchos</i>) | | | | 1 | 1 | | 3 | |
| Common Raven (<i>Corvus corax</i>) | 2 | 1 | 2 | 3 | | | | 2 |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | | | | 3 | 1 | 4 | | |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | | | | | | 1 | | |
| Oak Titmouse (<i>Baeolophus inornatus</i>) | | | | 1 | 1 | 2 | | 2 |
| Bushtit (<i>Psaltriparus minimus</i>) | 5 | | | 8 | 1 | | 9 | |
| House Wren (<i>Troglodytes aedon</i>) | | | 2 | 1 | 1 | | | |
| Bewick's Wren (<i>Thryomanes bewickii</i>) | | 2 | | 7 | 6 | 3 | 6 | 4 |
| Western Bluebird (<i>Sialia mexicana</i>) | | | | | | | | |
| American Robin (<i>Turdus migratorius</i>) | | 1 | | | | | | |
| Wrentit (<i>Chamaea fasciata</i>) | | | | | | | | 1 |
| California Thrasher (<i>Toxostoma redivivum</i>) | | | 1 | 2 | 1 | | | |
| European Starling (<i>Sturnus vulgaris</i>)* | | | 5 | | | | | |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | | | | | 3 | | | |

**REACH 104
CASTAIC CREEK (PD 2441 UNITS 1 AND 2)**

| Species | Survey Dates – 2013 | | | | | | | |
|--|---------------------|--------|-------|--------|-------|--------|-------|--------|
| | 16-Apr | 29-Apr | 9-May | 22-May | 7-Jun | 18-Jun | 2-Jun | 12-Jul |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | | | 2 | | | | | |
| Spotted Towhee (<i>Pipilo maculatus</i>) | 1 | | 4 | 8 | 6 | 3 | 3 | 2 |
| California Towhee (<i>Melospiza crissalis</i>) | 1 | | | 2 | 1 | 1 | | |
| Song Sparrow (<i>Melospiza lincolni</i>) | | | 2 | 1 | | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | | 1 | | 1 | 1 | | 1 | 2 |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | | | 1 | | | | |
| Brown-headed Cowbird (<i>Molothrus ater</i>) | | | | | 1 | | | |
| Bullock's Oriole (<i>Icterus bullockii</i>) | | | | | 1 | | | |
| House Finch (<i>Haemorhous mexicanus</i>) | | 2 | 8 | 1 | 7 | 2 | 3 | 9 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 4 | 2 | 6 | 3 | | | 2 | |
| * Introduced non-native species with established breeding population in California | | | | | | | | |

**REACH 105
SAN FRANCISQUITO CANYON CHANNEL (PD 2456)**

| Species | Survey Dates – 2013 | | | | | | | |
|--|---------------------|--------|-------|--------|--------|--------|--------|-------|
| | 10-Apr | 23-Apr | 3-May | 24-May | 11-Jun | 18-Jun | 26-Jun | 9-Jul |
| California Quail (<i>Callipepla californica</i>) | 5 | 2 | 6 | | 2 | 2 | 3 | 3 |
| Turkey Vulture (<i>Cathartes aura</i>) | | | 2 | | | | | |
| Red-tailed Hawk (<i>Buteo jamaicensis</i>) | | | | 1 | | | | |
| Red-shouldered Hawk (<i>Buteo lineatus</i>) | | | | | 1 | | 1 | |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | 1 | | | | | | | |
| Killdeer (<i>Charadrius vociferous</i>) | | | | 1 | | | | |
| Mourning Dove (<i>Zenaida macroura</i>) | 2 | | 4 | 3 | 4 | 5 | 2 | |
| Greater Roadrunner (<i>Geococcyx californianus</i>) | | | | | 1 | | | |
| Black-chinned Hummingbird (<i>Archilochus alexandri</i>) | | | | | | | 1 | |
| Anna's Hummingbird (<i>Calypte anna</i>) | 2 | 2 | 2 | 1 | | 2 | 3 | 4 |
| Costa's Hummingbird (<i>Calypte costae</i>) | | | | | | | 1 | |
| Allen's/Rufous Hummingbird (<i>Selasphorus sp.</i>) | | | | 2 | | 1 | 1 | 3 |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | 1 | | | | 1 | 1 | 1 | 1 |
| Downy Woodpecker (<i>Picoides pubescens</i>) | | | | | | | 1 | |
| American Kestrel (<i>Falco sparverius</i>) | | | | 1 | | | | |
| Willow Flycatcher (<i>Empidonax traillii</i>) | | | | | | 2 | 1 | |
| Black Phoebe (<i>Sayornis nigricans</i>) | 1 | 2 | 2 | 1 | | 1 | 1 | 1 |
| Say's Phoebe (<i>Sayornis saya</i>) | | 1 | | | | | | |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | | | | 1 | | | | 2 |
| Cassin's Kingbird (<i>Tyrannus vociferans</i>) | | | | | | | 1 | |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | 1 | 1 | 2 | 2 | | 2 | 1 | 3 |
| American Crow (<i>Corvus brachyrhynchos</i>) | 2 | | | 2 | | 2 | 1 | 1 |
| Common Raven (<i>Corvus corax</i>) | 1 | 1 | 2 | 1 | 2 | 1 | | 2 |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | 2 | | | 2 | 6 | 4 | | |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | 4 | 3 | 3 | 2 | | 5 | 2 | 2 |

**REACH 105
SAN FRANCISQUITO CANYON CHANNEL (PD 2456)**

| Species | Survey Dates – 2013 | | | | | | | |
|---|---------------------|--------|-------|--------|--------|--------|--------|-------|
| | 10-Apr | 23-Apr | 3-May | 24-May | 11-Jun | 18-Jun | 26-Jun | 9-Jul |
| Oak Titmouse (<i>Baeolophus inornatus</i>) | | | | | | 1 | | |
| Bushtit (<i>Psaltriparus minimus</i>) | 6 | 2 | 5 | | | | 10 | |
| Bewick's Wren (<i>Thryomanes bewickii</i>) | | | | 3 | 2 | | 2 | 3 |
| Wrentit (<i>Chamaea fasciata</i>) | 1 | | 1 | | | | | |
| Western Bluebird (<i>Sialia mexicana</i>) | 2 | | | | | | | |
| California Thrasher (<i>Toxostoma redivivum</i>) | | | 2 | 1 | | 1 | 2 | 5 |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | | | | 1 | | | | |
| Phainopepla (<i>Phainopepla nitens</i>) | | | | 1 | | | | |
| European Starling (<i>Sturnus vulgaris</i>)* | | | | | | 2 | | |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | | | | | 3 | 1 | 1 | 2 |
| Yellow Warbler (<i>Setophaga petechia</i>) | | | | | 1 | | | |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 10 | | | | | | | |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | | | 1 | | | | | |
| Spotted Towhee (<i>Pipilo maculatus</i>) | | | | | 2 | | | 1 |
| California Towhee (<i>Melospiza crissalis</i>) | 2 | | 2 | 2 | 2 | | 2 | 2 |
| Song Sparrow (<i>Melospiza lincolni</i>) | | 1 | | | | | 2 | 1 |
| White-crowned Sparrow (<i>Zonotrichia leucophrys</i>) | 3 | | | | | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | | | | | | | 1 | |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | | | | | | 1 | 2 |
| Red-winged Blackbird (<i>Agelaius phoeniceus</i>) | | | | | | 1 | | |
| House Finch (<i>Haemorhous mexicanus</i>) | 5 | 5 | | 11 | 7 | 10 | 1 | 13 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 4 | 4 | 8 | 1 | 2 | 3 | 4 | 2 |

**REACH 106
CASTAIC DRAIN OUTLET (RMD CHANNELS)**

| Species | Survey Dates – 2013 | | | | | | | |
|--|---------------------|--------|-------|--------|-------|--------|-------|--------|
| | 16-Apr | 29-Apr | 9-May | 22-May | 7-Jun | 18-Jun | 2-Jul | 12-Jul |
| Mallard (<i>Anas platyrhynchos</i>) | 2 | 2 | | | | | | |
| California Quail (<i>Callipepla californica</i>) | | | | | | | 1 | |
| Killdeer (<i>Charadrius vociferous</i>) | | 2 | | 1 | | | | |
| Rock Pigeon (<i>Columba livia</i>)* | | | | 15 | | | 1 | |
| Eurasian Collared-Dove (<i>Streptopelia decaocto</i>)* | | 2 | | 1 | | | | |
| Mourning Dove (<i>Zenaida macroura</i>) | 1 | 1 | | | | | | |
| Anna's Hummingbird (<i>Calypte anna</i>) | | 2 | 1 | 2 | 3 | | 1 | |
| Western Wood-Pewee (<i>Contopus sordidulus</i>) | | | | 2 | | | | |
| Black Phoebe (<i>Sayornis nigricans</i>) | | 3 | 3 | 5 | 2 | 1 | 1 | |
| Western Kingbird (<i>Tyrannus verticalis</i>) | | | | | 2 | 6 | 4 | 4 |
| Warbling Vireo (<i>Vireo gilvus</i>) | | | | 1 | | | | |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | | 4 | | | 1 | 2 | | |
| American Crow (<i>Corvus brachyrhynchos</i>) | | | 1 | | 2 | | | |
| Common Raven (<i>Corvus corax</i>) | 2 | 2 | | | | 1 | 1 | |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | | | 1 | | | | 1 | 2 |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | | 4 | | | | | | |
| Barn Swallow (<i>Hirundo rustica</i>) | | | 3 | 1 | 2 | 1 | | |
| House Wren (<i>Troglodytes aedon</i>) | | | 1 | | | | | |
| American Robin (<i>Turdus migratorius</i>) | | | | | | | | 1 |
| California Thrasher (<i>Toxostoma redivivum</i>) | | | 1 | | | | | |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | | | | | | | | 1 |
| European Starling (<i>Sturnus vulgaris</i>)* | | | | 4 | | | | |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | | | 1 | | 1 | 1 | 1 | |
| Yellow Warbler (<i>Setophaga petechia</i>) | | 1 | | 1 | | | | |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | | 1 | | | | | | |

**REACH 106
CASTAIC DRAIN OUTLET (RMD CHANNELS)**

| Species | Survey Dates – 2013 | | | | | | | |
|--|---------------------|--------|-------|--------|-------|--------|-------|--------|
| | 16-Apr | 29-Apr | 9-May | 22-May | 7-Jun | 18-Jun | 2-Jul | 12-Jul |
| California Towhee (<i>Melospiza crissalis</i>) | | | | 4 | | | | |
| Song Sparrow (<i>Melospiza lincolni</i>) | 2 | 2 | 4 | 4 | 3 | 1 | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | | | 1 | | | 1 | | |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | | | | | | | 1 |
| Red-winged Blackbird (<i>Ageaius phoeniceus</i>) | 4 | 10 | | 10 | | | 1 | |
| Brewer's Blackbird (<i>Euphagus cyanocephalus</i>) | | | | | | | 1 | |
| Great-tailed Grackle (<i>Quiscalus mexicanus</i>) | | | | 4 | | | | |
| Bullock's Oriole (<i>Icterus bullockii</i>) | | | | 2 | | | | |
| House Finch (<i>Haemorhous mexicanus</i>) | 4 | 7 | 4 | 10 | 2 | 3 | 3 | 6 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | 5 | | 2 | | 1 | | | |
| * Introduced non-native species with established breeding population in California | | | | | | | | |

**REACH 110
HASLEY CANYON CHANNEL (PD 2262)**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|--------|--------|--------|--------|
| | 11-Apr | 24-Apr | 7-May | 17-May | 30-May | 13-Jun | 20-Jun | 27-Jun | 10-Jul |
| California Quail (<i>Callipepla californica</i>) | | 14 | 2 | 2 | | | 2 | 1 | 5 |
| Great Egret (<i>Ardea alba</i>) | | | | | | | | | 1 |
| Red-tailed Hawk (<i>Buteo jamaicensis</i>) | | 1 | | | | | | | |
| Killdeer (<i>Charadrius vociferous</i>) | | 2 | | | | 1 | | 4 | |
| Western Gull (<i>Larus occidentalis</i>) | | | | | | | | | 1 |
| Rock Pigeon (<i>Columba livia</i>)* | | | | | | | | | 25 |
| Mourning Dove (<i>Zenaida macroura</i>) | | | 1 | 5 | | 1 | 3 | | |
| Barn Owl (<i>Tyto alba</i>) | | | | | | 1 | | | |
| Anna's Hummingbird (<i>Calypte anna</i>) | 1 | 3 | 1 | | 2 | | | 4 | 2 |
| Costa's Hummingbird (<i>Calypte costae</i>) | | | | | | 1 | 1 | | |
| Allen's Hummingbird (<i>Selasphorus sasin</i>) | | | | 3 | | | | 2 | |
| Allen's/Rufous Hummingbird (<i>Selasphorus sp.</i>) | | | | | 1 | 1 | 1 | | |
| Nuttall's Woodpecker (<i>Picoides nuttallii</i>) | | | | | | | | 1 | |
| Western Wood-Pewee (<i>Contopus sordidulus</i>) | | | | | 2 | | | | |
| Black Phoebe (<i>Sayornis nigricans</i>) | | | | | 1 | 1 | | | 1 |
| Say's Phoebe (<i>Sayornis saya</i>) | | 1 | | | | 1 | | 1 | 1 |
| Ash-throated Flycatcher (<i>Myiarchus cinerascens</i>) | | | | | | | 1 | | |
| Cassin's Kingbird (<i>Tyrannus vociferans</i>) | | | | | | | | 2 | 2 |
| Western Scrub-Jay (<i>Aphelocoma insularis</i>) | | 2 | | | 3 | | 1 | | 1 |
| American Crow (<i>Corvus brachyrhynchos</i>) | | | 1 | 2 | 2 | | 1 | 2 | 4 |
| Common Raven (<i>Corvus corax</i>) | 1 | 4 | 1 | 4 | 4 | 6 | 4 | 2 | 3 |
| Northern Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>) | | | 4 | 4 | | | 2 | 2 | |
| Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) | | | | | 2 | | 10 | 1 | |
| Bushtit (<i>Psaltriparus minimus</i>) | 1 | 15 | | | 12 | | 15 | | 6 |
| White-breasted Nuthatch (<i>Sitta carolinensis</i>) | | | | | 1 | | | | |

**REACH 110
HASLEY CANYON CHANNEL (PD 2262)**

| Species | Survey Dates – 2013 | | | | | | | | |
|--|---------------------|--------|-------|--------|--------|--------|--------|--------|--------|
| | 11-Apr | 24-Apr | 7-May | 17-May | 30-May | 13-Jun | 20-Jun | 27-Jun | 10-Jul |
| Bewick's Wren (<i>Thryomanes bewickii</i>) | | 6 | 1 | 4 | 5 | 3 | 4 | 1 | 2 |
| Western Bluebird (<i>Sialia mexicana</i>) | | | | | | | | 1 | |
| American Robin (<i>Turdus migratorius</i>) | | | | | | | | 2 | |
| Wrentit (<i>Chamaea fasciata</i>) | | | | | 1 | 2 | 1 | 3 | 1 |
| California Thrasher (<i>Toxostoma redivivum</i>) | | | | | 1 | 1 | 1 | 3 | 1 |
| Northern Mockingbird (<i>Mimus polyglottos</i>) | | | | | 1 | | 1 | 3 | 2 |
| Common Yellowthroat (<i>Geothlypis trichas</i>) | | | | | | 1 | | | |
| Yellow Warbler (<i>Setophaga petechia</i>) | | | | | 2 | | | | |
| Yellow-rumped Warbler (<i>Setophaga coronata</i>) | 1 | 5 | | | | | | | |
| Wilson's Warbler (<i>Wilsonia pusilla</i>) | | | | 1 | | | | | |
| Townsend's Warbler (<i>Setophaga townsendi</i>) | | | 1 | | | | | | |
| Spotted Towhee (<i>Pipilo maculatus</i>) | | 6 | 1 | 3 | 8 | 3 | 2 | 1 | 3 |
| Rufous-crowned Sparrow (<i>Aimophila ruficeps</i>) | | | | | | 1 | | | |
| California Towhee (<i>Melospiza crissalis</i>) | | 6 | 1 | 6 | 6 | 4 | 4 | 5 | 4 |
| Lark Sparrow (<i>Chondestes grammacus</i>) | | | | | | | | 1 | 3 |
| Song Sparrow (<i>Melospiza lincolni</i>) | 1 | 4 | 1 | 3 | 4 | 2 | 1 | | |
| Western Tanager (<i>Piranga ludoviciana</i>) | | | | | 6 | | | | |
| Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>) | | 2 | | | | 3 | 4 | 2 | 1 |
| Blue Grosbeak (<i>Passerina caerulea</i>) | | | | | 1 | 1 | 1 | 4 | 2 |
| Hooded Oriole (<i>Icterus cucullatus</i>) | | | | | | | | | 1 |
| Bullock's Oriole (<i>Icterus bullockii</i>) | 1 | | | | | | | 1 | |
| House Finch (<i>Haemorhous mexicanus</i>) | 1 | 15 | 1 | | 10 | 14 | 13 | 15 | 15 |
| Lesser Goldfinch (<i>Spinus psaltria</i>) | | | 1 | 6 | 1 | 2 | | 3 | 4 |
| * Introduced non-native species with established breeding population in California | | | | | | | | | |

APPENDIX C
WILDLIFE COMPENDIA
(ARROYO TOAD SURVEYS)

**TABLE 2
WILDLIFE COMPENDIA (ARROYO TOAD SURVEYS)**

| Scientific Name | Common Name | Status | | Channel Reach |
|--|----------------------------------|--------|-------|--------------------------------------|
| | | USFWS | CDFG | |
| Fish | | | | |
| CYPRINIDAE – MINNOWS | | | | |
| <i>Gila orcutti</i> | arroyo chub | - | SSC | Reaches 79, 109 |
| <i>Rhinichthys osailolus</i> | Santa Ana speckled dace | - | SSC | Reaches 79, 109 |
| <i>Catostomus santaanae</i> ² | Santa Ana sucker | - | - | Reaches 79, 109 |
| GASTEROSTERIDAE - STICKLEBACKS | | | | |
| <i>Gasterosteus aculeatus</i> | unarmored threespine stickleback | E | E, FP | Reach 109 |
| Amphibians | | | | |
| BUFONIDAE – TRUE TOADS | | | | |
| <i>Anaxyrus boreas</i> | western toad | - | - | All Reaches |
| HYLIDAE – TREEFROGS | | | | |
| <i>Pseudacris hypochondriaca</i> | Baja California treefrog | - | - | Reaches 71, 79, 80, 82, 87, 105, 109 |
| RANIDAE – TRUE FROGS | | | | |
| <i>Lithobates catesbeiana</i> * | American bullfrog | - | - | Reach 109 |
| PIPIDAE – TONGUELESS FROGS | | | | |
| <i>Xenopus laevis</i> * | African clawed frog | - | - | Reaches 79, 82, 87, 105, 109 |
| Federal Designations | | | | |
| FE Listed by the federal government as an Endangered species | | | | |
| S Listed by the U.S. Forest Service as "Sensitive" | | | | |
| State Designations | | | | |
| SE Listed by the state government as an Endangered species | | | | |
| SSC Species of Special Concern | | | | |
| FP Fully Protected | | | | |
| * Introduced species. | | | | |

APPENDIX D
SURVEYOR CERTIFICATE STATEMENT

**APPENDIX D
SURVEYOR CERTIFICATION STATEMENT**

We certify that the information in this survey report and enclosed exhibits fully and accurately present our work.



Brian Daniels
Senior Biologist
(TE-821401-4)



Amber Oneal Heredia
Senior Biologist
(TE-148554-2)



James Pike
Consulting Biologist
(TE-832946-4)

APPENDIX E

**CALIFORNIA NATURAL DIVERSITY DATABASE
(CNDDDB) FIELD SURVEY FORMS**

Mail to:
 California Natural Diversity Database
 Department of Fish and Game
 1807 13th Street, Suite 202
 Sacramento, CA 95811
 Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 05/22/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Vireo bellii pusillus

Common Name: least Bell's vireo

Species Found? Yes No _____ If not, why?
 Total No. Individuals 7 Subsequent Visit? yes no
 Is this an existing NDDDB occurrence? _____ no unk.
 Yes, Occ. # _____
 Collection? If yes: _____
 Number _____ Museum / Herbarium _____

Reporter: Jim Pike
 Address: 18744 Beach Blvd, #E
Huntington Beach, CA, 92648
 E-mail Address: jpik44@earthlink.net
 Phone: (714) 968-7977

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

6 # adults 1 # juveniles _____ # larvae _____ # egg masses _____ # unknown _____
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Multi-strata riparian vegetation bordering the streambed

County: Los Angeles Landowner / Mgr.: Department of Public Works
 Quad Name: _____ Elevation: _____
 T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S
 Source of Coordinates (GPS, topo. map & type): GPS
 T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S
 GPS Make & Model Garmin 60 CSx
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 3 meters meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
 Coordinates: 11S 0402103 3764482

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):
Territorial singing by three male vireos throughout the survey season. A fourth male was only present on one survey. One pair eventually observed with at least one fledgling. Two nests of another pair were found in mulefat, but both were depredated.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Bordered by industrial and a golf course.

Visible disturbances:

Threats: Invasive vegetation and paintball games

Comments: Relatively good quality habitat for riparian species, but xeric conditions an issue this season.

Determination: (check one or more, and fill in blanks)

Keyed (cite reference): _____
 Compared with specimen housed at: _____
 Compared with photo / drawing in: _____
 By another person (name): _____
 Other: Bird expert and professional vireo biologist

Photographs: (check one or more)

| | Slide | Print | Digital |
|--------------------|--------------------------|--------------------------|--------------------------|
| Plant / animal | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Habitat | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Diagnostic feature | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

May we obtain duplicates at our expense? yes no

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811

Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/14/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Vireo bellii pusillus

Common Name: least Bell's vireo

Species Found? Yes No _____
If not, why?

Total No. Individuals 26 Subsequent Visit? yes no

Is this an existing NDDDB occurrence? _____ no unk.
Yes, Occ. # _____

Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Jim Pike

Address: 18744 Beach Blvd, #E
Huntington Beach, CA, 92648

E-mail Address: jpika44@earthlink.net

Phone: (714) 968-7977

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

11 # adults 15 # juveniles _____ # larvae _____ # egg masses _____ # unknown _____
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Tall black willows and islands of narrow-leaved willow bordering the San Gabriel River

County: Los Angeles Landowner / Mgr.: Department of Public Works

Quad Name: _____ Elevation: _____

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model Garmin 60CSx

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 3 meters meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: 11S 0405626 3767122

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Five territorial males throughout the season. Two additional males present only on one or two surveys. Three nests found in narrow-leaved willow (with a fourth nesting effort almost certainly in the same plant species), and another nest in mulefat. Three of the four nests that were discovered were successful, producing a minimum of 15 young. An additional very late nest had three white eggs on the last of the proscribed surveys on July 12, and its outcome is unknown at this time.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Urban and horse stables

Visible disturbances: Homeless encampments

Threats: Brown-headed cowbirds and fluctuating water levels

Comments: Narrow-leaved willow islands provide high-quality vireo habitat, but the threat posed by a burgeoning homeless population is enormous.

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: Bird expert and professional vireo biologist

Photographs: (check one or more)

| | | |
|--------------------|--------------------------|--------------------------|
| Slide | Print | Digital |
| Plant / animal | <input type="checkbox"/> | <input type="checkbox"/> |
| Habitat | <input type="checkbox"/> | <input type="checkbox"/> |
| Diagnostic feature | <input type="checkbox"/> | <input type="checkbox"/> |

May we obtain duplicates at our expense? yes no

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 05/23/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Vireo bellii pusillus

Common Name: least Bell's vireo

Species Found? Yes No If not, why? _____
Total No. Individuals 3 Subsequent Visit? yes no
Is this an existing NDDDB occurrence? _____ no unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Brian E. Daniels
Address: 225 South Lake Avenue, Suite 1000
Pasadena, CA. 91101
E-mail Address: bdaniels@bonterraconsulting.com
Phone: (626) 351-2000

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

3
adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown _____
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: Los Angeles Landowner / Mgr.: Los Angeles County/ Army Corps of Engineers
Quad Name: Asuza Elevation: 609 ft.
T_____ R_____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S
Source of Coordinates (GPS, topo. map & type): GoogleEarth
T_____ R_____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S
GPS Make & Model _____
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
Coordinates: 11S 413549, 3778307 and 414080, 3778597

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Two territorial males and at least 1 female present during the survey season. The color-banded female was nest building with the male on this date, but the outcome of the nesting was not determined. Note that this color-banded female was banded on October 27, 2012, at San Jose del Cabo, Baja California.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Mix of open space, residential to west, and quarry operations to east and north.

Visible disturbances: Homeless encampments at willow clumps, one of which burned during the survey season - complete loss of several willows.

Threats: Nothing imminent (other than the homeless).

Comments: The side drainage on east side (Beatty Channel - Reach 39) is maintained by the County of LA Department of Pubic Works. Annual clearing of vegetation occurs in compliance with regulatory permits. Homeless activity has been an issue for years.

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more) Slide Print Digital
Plant / animal
Habitat
Diagnostic feature

May we obtain duplicates at our expense? yes no

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/21/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Vireo bellii pusillus

Common Name: least Bell's vireo

Species Found? Yes No If not, why? _____
Total No. Individuals 1 Subsequent Visit? yes no
Is this an existing NDDB occurrence? no unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Brian E. Daniels
Address: 225 South Lake Avenue, Suite 1000
Pasadena, CA. 91101
E-mail Address: bdaniels@bonterraconsulting.com
Phone: (626) 351-2000

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

1
adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown _____
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: Los Angeles Landowner / Mgr.: Los Angeles County
Quad Name: Torrance Elevation: 15 ft.
T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GoogleEarth
T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model _____
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
Coordinates: 11S 380620 3740573

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

One territorial male was present in the willow riparian habitats of Wilmington Drain upstream of Lomita Blvd. This bird was found during focused least Bell's vireo surveys on the late date of May 29 and remained on territory as a bachelor to at least July 11.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: mix of residential and commercial; downstream across PCH is Ken Malloy Regional Park

Visible disturbances: The drainage has long history of use by homeless, but these encampments were cleared prior to surveys in March 2011.

Threats: Nothing imminent

Comments: Wilmington Drain (Reach 27) from the I-110 Fwy to PCH is maintained by the County of LA Department of Pubic Works. Annual clearing of vegetation occurs in compliance with regulatory permits.

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more) Slide Print Digital
Plant / animal
Habitat
Diagnostic feature

May we obtain duplicates at our expense? yes no

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/17/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Vireo bellii pusillus

Common Name: least Bell's vireo

Species Found? Yes No _____ If not, why? _____
Total No. Individuals 5 Subsequent Visit? yes no
Is this an existing NDDDB occurrence? _____ no unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Brian E. Daniels
Address: 225 South Lake Avenue, Suite 1000
Pasadena, CA. 91101
E-mail Address: bdaniels@bonterraconsulting.com
Phone: (626) 351-2000

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

3 # adults 2 # juveniles _____ # larvae _____ # egg masses _____ # unknown _____
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: Los Angeles Landowner / Mgr.: Los Angeles County
Quad Name: San Fernando Elevation: 1,300 ft.
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S
Source of Coordinates (GPS, topo. map & type): GoogleEarth
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S
GPS Make & Model _____
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
Coordinates: 11S 370290, 3797539 and 370436, 3797504

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Two territorial males with just one paired during survey season. This pair fledged at least two young.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: mix of open space, residential, and golf course

Visible disturbances: Relatively high use levels of wash by humans for various activities; more limited in basin

Threats: Nothing imminent

Comments: High levels of disturbance especially upstream of Maclay Street including illegal dumping, off-road motorcycles, etc. The side drainage on west side of Pacoima Wash is May Channel Outlet (Channel Reach 13) that is maintained by the County of LA Department of Public Works. Annual clearing of vegetation occurs in compliance with regulatory permits.

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more)

Plant / animal Slide Print Digital
Habitat
Diagnostic feature

May we obtain duplicates at our expense? yes no

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 05/23/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Icteria virens

Common Name: Yellow-breasted Chat

Species Found? Yes No _____ If not, why?
Total No. Individuals 2 Subsequent Visit? yes no
Is this an existing NDDB occurrence? no unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Brian E. Daniels
Address: 225 South Lake Avenue, Suite 1000
Pasadena, CA. 91101
E-mail Address: bdaniels@bonterraconsulting.com
Phone: (626) 351-2000

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

2
adults # juveniles # larvae # egg masses # unknown
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: Los Angeles Landowner / Mgr.: Los Angeles County/ Army Corps of Engineers
Quad Name: Asuza Elevation: 609 ft.
T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S
Source of Coordinates (GPS, topo. map & type): GoogleEarth
T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S
GPS Make & Model _____
DATUM: NAD27 NAD83 WGS84
Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
Coordinates: 11S 414066 3778621

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Two territorial males during these surveys. Survey area extends from pedestrian bridge (opposite Encanto Park) upstream to second drop structure. Habitat is southern willow scrub with mule fat being dominant in most areas.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Mix of open space, residential to west, and quarry operations to east and north.

Visible disturbances: Homeless encampments at willow clumps, one of which burned during the survey season - complete loss of several willows.

Threats: Nothing imminent (other than the homeless).

Comments: The side drainage on east side (Beatty Channel - Reach 39) is maintained by the County of LA Department of Pubic Works. Annual clearing of vegetation occurs in compliance with regulatory permits. Homeless activity has been an issue here for years.

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more)

| | | |
|--------------------------|--------------------------|--------------------------|
| Slide | Print | Digital |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Plant / animal | <input type="checkbox"/> | <input type="checkbox"/> |
| Habitat | <input type="checkbox"/> | <input type="checkbox"/> |
| Diagnostic feature | <input type="checkbox"/> | <input type="checkbox"/> |

May we obtain duplicates at our expense? yes no

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/14/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Icteria virens

Common Name: Yellow-breasted Chat

Species Found? Yes No _____
If not, why?
Total No. Individuals 3 Subsequent Visit? yes no
Is this an existing NDDB occurrence? _____ no unk.
Yes, Occ. #
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Jim Pike
Address: 18744 Beach Blvd, #E
Huntington Beach, CA, 92648
E-mail Address: jpika44@earthlink.net
Phone: (714) 968-7977

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

3
adults # juveniles # larvae # egg masses # unknown
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Multi-strata riparian vegetation bordering the streambed

County: Los Angeles Landowner / Mgr.: Department of Public Works
Quad Name: _____ Elevation: _____
T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS
T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model Garmin 60CSx
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 3 meters meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
Coordinates: 11S 0402134 3764453

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Territorial singing throughout the series of surveys that were conducted

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Bordered by industrial and a golf course

Visible disturbances:

Threats: Invasive vegetation and paintball games

Comments: Relatively good quality habitat for riparian species

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: Bird expert and professional vireo biologist

Photographs: (check one or more)

| | Slide | Print | Digital |
|--------------------|--------------------------|--------------------------|--------------------------|
| Plant / animal | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Habitat | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Diagnostic feature | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

May we obtain duplicates at our expense? yes no

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/01/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Icteria virens

Common Name: Yellow-breasted Chat

Species Found? Yes No _____ If not, why?
Total No. Individuals 2 Subsequent Visit? yes no
Is this an existing NDDDB occurrence? _____ no unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Jim Pike
Address: 18744 Beach Blvd, #E
Huntington Beach, CA, 92648
E-mail Address: jpika44@earthlink.net
Phone: (714) 968-7977

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

3
adults # juveniles # larvae # egg masses # unknown
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Islands of narrow-leaved willow bordering the streambed

County: Los Angeles Landowner / Mgr.: Department of Public Works
Quad Name: _____ Elevation: _____
T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS
T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model Garmin 60CSx
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 3 meters meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
Coordinates: 11S 0405681 3767137

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Territorial singing throughout the series of surveys that were conducted

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Bordered by urban and stables

Visible disturbances: Homeless encampments

Threats: Lack of water flow in the river

Comments:

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: Bird expert and professional vireo biologist

Photographs: (check one or more)

| | Slide | Print | Digital |
|--------------------|--------------------------|--------------------------|--------------------------|
| Plant / animal | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Habitat | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Diagnostic feature | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

May we obtain duplicates at our expense? yes no

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 California Natural Diversity Database
 Department of Fish and Game
 1807 13th Street, Suite 202
 Sacramento, CA 95811
 Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/10/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Setophaga petechia

Common Name: Yellow Warbler

Species Found? Yes No _____ If not, why? _____
 Total No. Individuals 2 Subsequent Visit? yes no
 Is this an existing NDDDB occurrence? _____ no unk.
 Yes, Occ. # _____
 Collection? If yes: _____
 Number _____ Museum / Herbarium _____

Reporter: Brian E. Daniels
 Address: 225 South Lake Avenue, Suite 1000
Pasadena, CA. 91101
 E-mail Address: bdaniels@bonterraconsulting.com
 Phone: (626) 351-2000

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

2
 # adults # juveniles # larvae # egg masses # unknown
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: Los Angeles Landowner / Mgr.: Los Angeles County/ Army Corps of Engineers
 Quad Name: Asuza Elevation: 609 ft.
 T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GoogleEarth
 T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model _____
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
 Coordinates: 11S 413536, 3778304

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

One breeding pair during focused surveys for least Bell's vireo. Survey area extends from pedestrian bridge (opposite Encanto Park) upstream to second drop structure. Habitat is southern willow scrub with mule fat being dominant in most areas. The yellow warbler territory was at willow clump over a pond at side outlet at western base of the pedestrian bridge.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Mix of open space, residential to west, and quarry operations to east and north.

Visible disturbances: Homeless encampments at willow clumps, one of which burned during the survey season - complete loss of several willows.

Threats: Nothing imminent (other than the homeless).

Comments: The side drainage on east side (Beatty Channel - Reach 39) is maintained by the County of LA Department of Pubic Works. Annual clearing of vegetation occurs in compliance with regulatory permits. Homeless activity has been an issue for years.

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more) Slide Print Digital
 Plant / animal
 Habitat
 Diagnostic feature

May we obtain duplicates at our expense? yes no

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/11/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Setophaga petechia

Common Name: Yellow Warbler

Species Found? Yes No _____ If not, why? _____
Total No. Individuals 6 Subsequent Visit? yes no
Is this an existing NDDDB occurrence? _____ no unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Brian E. Daniels
Address: 225 South Lake Avenue, Suite 1000
Pasadena, CA. 91101
E-mail Address: bdaniels@bonterraconsulting.com
Phone: (626) 351-2000

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

6
adults # juveniles # larvae # egg masses # unknown
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: Los Angeles Landowner / Mgr.: Los Angeles County
Quad Name: Newhall Elevation: 1,091 ft.
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S E
Source of Coordinates (GPS, topo. map & type): GoogleEarth
T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S E
GPS Make & Model _____
DATUM: NAD27 NAD83 WGS84
Horizontal Accuracy _____ meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
Coordinates: 11S 378348 3792716

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

At least 6 territorial males in Santa Clara River west (downstream) of McBean Pkwy bridge present during focused surveys for least Bell's vireo. Survey area is the confluence of San Francisquito Wash and Santa Clara River. Habitats include young southern willow scrub to old growth riparian forest dominated by stands of cottonwoods. Surface water present throughout surveys.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Mix of commercial, residential, and light industrial.

Visible disturbances: none

Threats: none

Comments: These surveys are for flood control facilities managed by the County of LA Department of Pubic Works. Maintenance activities are limited to toe of concrete levee at confluence with San Francisquito Wash and are governed by regulatory permits including biological opinion for unarmored threespine stickleback and arroyo toad.

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more)

| | Slide | Print | Digital |
|--------------------|--------------------------|--------------------------|--------------------------|
| Plant / animal | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Habitat | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Diagnostic feature | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

May we obtain duplicates at our expense? yes no

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811

Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/14/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Setophaga petechia

Common Name: Yellow Warbler

Species Found? Yes No _____
If not, why?

Total No. Individuals 9 Subsequent Visit? yes no

Is this an existing NDDDB occurrence? no unk.
Yes, Occ. # _____

Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Jim Pike

Address: 18744 Beach Blvd, #E
Huntington Beach, CA, 92648

E-mail Address: jpika44@earthlink.net

Phone: (714) 968-7977

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

9
adults # juveniles # larvae # egg masses # unknown
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Tall black willows bordering the streambed

County: Los Angeles

Landowner / Mgr.: Department of Public Works

Quad Name: _____ Elevation: _____

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S

Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S

GPS Make & Model Garmin 60CSx

DATUM: NAD27 NAD83 WGS84

Horizontal Accuracy 3 meters meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: 11S 0402314 3764521

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Territorial singing throughout the series of surveys that were conducted

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Bordered by industrial and urban

Visible disturbances:

Threats: Lack of water flow in the river

Comments:

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: Bird expert and professional vireo biologist

Photographs: (check one or more) Slide Print Digital
Plant / animal
Habitat
Diagnostic feature

May we obtain duplicates at our expense? yes no

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/28/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Setophaga petechia

Common Name: Yellow Warbler

Species Found? Yes No _____
If not, why?

Total No. Individuals 17 Subsequent Visit? yes no

Is this an existing NDDDB occurrence? no unk.
Yes, Occ. # _____

Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Jim Pike

Address: 18744 Beach Blvd, #E
Huntington Beach, CA, 92648

E-mail Address: jpika44@earthlink.net

Phone: (714) 968-7977

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

17
adults # juveniles # larvae # egg masses # unknown
 winterring breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Multi-strata riparian vegetation bordering the streambed

County: Los Angeles Landowner / Mgr.: Department of Public Works

Quad Name: _____ Elevation: _____

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S GPS Make & Model Garmin 60CSx

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 3 meters meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: 11S 0402230 3764524

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Territorial singing throughout the series of surveys that were conducted

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Bordered by industrial and a golf course

Visible disturbances:

Threats: Invasive vegetation and paintball games

Comments: Relatively good quality habitat for riparian species

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: Bird expert and professional vireo biologist

Photographs: (check one or more)

| | | |
|--------------------------|--------------------------|--------------------------|
| Slide | Print | Digital |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

May we obtain duplicates at our expense? yes no

For Office Use Only

Source Code _____ Quad Code _____
 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/14/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Setophaga petechia

Common Name: Yellow Warbler

Species Found? Yes No _____ If not, why?
 Total No. Individuals 12 Subsequent Visit? yes no
 Is this an existing NDDDB occurrence? no unk. Yes, Occ. # _____
 Collection? If yes: _____
 Number _____ Museum / Herbarium _____

Reporter: Jim Pike
 Address: 18744 Beach Blvd, #E
Huntington Beach, CA, 92648
 E-mail Address: jpika44@earthlink.net
 Phone: (714) 968-7977

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

12
 # adults # juveniles # larvae # egg masses # unknown
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Tall black willows and islands of narrow-leaved willow bordering the San Gabriel River

County: Los Angeles Landowner / Mgr.: Department of Public Works
 Quad Name: _____ Elevation: _____
 T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS
 T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S GPS Make & Model Garmin 60CSx
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy 3 meters meters/feet
Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
 Coordinates: 11S 0405470 3767041

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Territorial singing throughout the survey season

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Urban and horse stables

Visible disturbances: Homeless encampments

Threats: Brown-headed cowbirds and lack of water flow in the river

Comments:

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: Bird expert and professional vireo biologist

Photographs: (check one or more)

| | | | |
|--------------------|--------------------------|--------------------------|--------------------------|
| | Slide | Print | Digital |
| Plant / animal | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Habitat | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Diagnostic feature | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

May we obtain duplicates at our expense? yes no

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy): 06/17/2013

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: Setophaga petechia

Common Name: Yellow Warbler

Species Found? Yes No _____
If not, why? _____

Total No. Individuals 4 Subsequent Visit? yes no

Is this an existing NDDDB occurrence? no unk.
Yes, Occ. # _____

Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Brian E. Daniels

Address: 225 South Lake Avenue, Suite 1000
Pasadena, CA. 91101

E-mail Address: bdaniels@bonterraconsulting.com

Phone: (626) 351-2000

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

4
adults # juveniles # larvae # egg masses # unknown
 wintering breeding nesting rookery burrow site other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: Los Angeles Landowner / Mgr.: Los Angeles County

Quad Name: Sunland Elevation: 2,1254 ft.

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GoogleEarth

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model _____

DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: 11S 378348 3792716

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Two breeding pairs present during least Bell's vireo surveys of riparian habitat at mouth of Haines Channel Outlet in Tujunga Wash. Both pairs nested successfully as one fledgling was observed. The survey area is about 200 feet from outlet of concrete channel and is dominated by tall trees including willows, cottonwoods, eucalyptus and several other ornamental trees.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor

Immediate AND surrounding land use: Residential, alluvial sage scrub habitats of Tujunga Wash, and golf course at downstream end of survey area.

Visible disturbances: human traffic

Threats: nothing imminent

Comments: this is Channel Reach 12 that is maintained by the County of LA Department of Public Works. Annual clearing of vegetation occurs in compliance with regulatory permits.

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: _____
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more) Slide Print Digital
Plant / animal
Habitat
Diagnostic feature

May we obtain duplicates at our expense? yes no

APPENDIX F

WILLOW FLYCATCHER SURVEY AND DETECTION FORMS

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: LA County Department of Public Works Soft-Bottom Channels State: CA County: Los Angeles

USGS Quad Name: Sunland Elevation: 353 (meters)

Creek, River, or Lake Name: Haines Canyon Main Channel Outlet (Reach 12)

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Survey Coordinates: Start: E 378432 N 3792715 UTM Datum: WGS84 (See instructions)
 Stop: E 378233 N 3792737 UTM Zone: 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

****Fill in additional site information on back of this page****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey Time | Number of Adult WIFLs | Estimated Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator. | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | |
|--|-----------------------------|-----------------------------|---------------------------------|---------------------------------------|--|--|--|-----|-------|-------|
| | | | | | | | # Birds | Sex | UTM E | UTM N |
| Survey # 1 Observer(s): B. Daniels | Date: 05/23/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0545 | | | | | | 0 | | | |
| | Stop: 0645 | | | | | | | | | |
| | Total hrs: 1.0 | | | | | | | | | |
| Survey # 2 Observer(s): B. Daniels | Date: 06/10/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0600 | | | | | | 0 | | | |
| | Stop: 0650 | | | | | | | | | |
| | Total hrs: 0.8 | | | | | | | | | |
| Survey # 3 Observer(s): B. Daniels | Date: 06/17/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0545 | | | | | | 0 | | | |
| | Stop: 0635 | | | | | | | | | |
| | Total hrs: 0.8 | | | | | | | | | |
| Survey # 4 Observer(s): B. Daniels | Date: 06/25/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0550 | | | | | | 0 | | | |
| | Stop: 0640 | | | | | | | | | |
| | Total hrs: 0.8 | | | | | | | | | |
| Survey # 5 Observer(s): B. Daniels | Date: 07/5/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0600 | | | | | | 0 | | | |
| | Stop: 0645 | | | | | | | | | |
| | Total hrs: 4.2 | | | | | | | | | |
| Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total survey hrs: <u>4.2</u> | | Total Adult Residents | Total Pairs | Total Territories | Total Nests | Were any WIFLs color-banded? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | |
| | | 0 | 0 | 0 | 0 | | | | | |

Reporting Individual: Brian E. Daniels

Date Report Completed: 2013

US Fish & Wildlife Service Permit #: TE821401-4

State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Brian E. Daniels Phone # 626-351-2000
 Affiliation BonTerra Consulting E-mail bdaniels@bonterraconsulting.com
 Site Name LA County Department of Public Works Soft-Bottom Channels Date report Completed 2013
 Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.
 Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) LA County Department of Public Works (Flood Maintenance Division)

Length of area surveyed: 0.2 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
 Mixed native and exotic plants (mostly native, 50 - 90% native)
 Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
 Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.
Salix sp., Populus fremontii

Average height of canopy (Do not include a range): 6 m (meters)

- Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features).
Attach additional sheets if necessary.

The survey area for this channel reach consists of a dense strip of willow woodland upstream of the Mulholland Highway and more scrubby willows with mule fat scrub downstream of the bridge.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
|------------------|--------------------|-------|-------|---------------------------|-----------------------|--|
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Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: LA County Department of Public Works Soft-Bottom Channels State: CA County: Los Angeles

USGS Quad Name: Sunland Elevation: 400 (meters)

Creek, River, or Lake Name: May Channel Outlet into Pacoima Canyon (Reach 14)

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes ~~X~~ No

Survey Coordinates: Start: E 370215 N 3797657 UTM Datum: WGS84 (See instructions)

Stop: E 370286 N 3797496 UTM Zone: 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

****Fill in additional site information on back of this page****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey Time | Number of Adult WIFLs | Estimated Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator. | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | | |
|--|-----------------------------|-----------------------------|---------------------------------|---------------------------------------|--|---|--|-----|-------|-------|--|
| | | | | | | | # Birds | Sex | UTM E | UTM N | |
| Survey # 1 Observer(s): B. Daniels | Date: 05/23/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0700 | | | | | | 0 | | | | |
| | Stop: 0820 | | | | | | | | | | |
| | Total hrs: 1.3 | | | | | | | | | | |
| Survey # 2 Observer(s): B. Daniels | Date: 06/10/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0705 | | | | | | 0 | | | | |
| | Stop: 0845 | | | | | | | | | | |
| | Total hrs: 0.7 | | | | | | | | | | |
| Survey # 3 Observer(s): B. Daniels | Date: 06/17/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0650 | | | | | | 0 | | | | |
| | Stop: 0800 | | | | | | | | | | |
| | Total hrs: 1.2 | | | | | | | | | | |
| Survey # 4 Observer(s): B. Daniels | Date: 06/25/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0655 | | | | | | 0 | | | | |
| | Stop: 0820 | | | | | | | | | | |
| | Total hrs: 1.4 | | | | | | | | | | |
| Survey # 5 Observer(s): B. Daniels | Date: 07/5/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0700 | | | | | | 0 | | | | |
| | Stop: 0830 | | | | | | | | | | |
| | Total hrs: 1.5 | | | | | | | | | | |
| Overall Site Summary <small>Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.</small> | | Total Adult Residents | Total Pairs | Total Territories | Total Nests | Were any WIFLs color-banded? Yes <u> </u> No <u> </u> If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | | |
| Total survey hrs: 6.1 | 0 | 0 | 0 | 0 | | | | | | | |

Reporting Individual: Brian E. Daniels

Date Report Completed: 2013

US Fish & Wildlife Service Permit #: TE821401-4

State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Brian E. Daniels Phone # 626-351-2000
 Affiliation BonTerra Consulting E-mail bdaniels@bonterraconsulting.com
 Site Name LA County Department of Public Works Soft-Bottom Channels Date report Completed 2013
 Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.
 Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) LA County Department of Public Works (Flood Maintenance Division)

Length of area surveyed: 0.2 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
 Mixed native and exotic plants (mostly native, 50 - 90% native)
 Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
 Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix sp., Baccharis salicifolia

Average height of canopy (Do not include a range): 5 m (meters)

- Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features).
Attach additional sheets if necessary.

The survey area for this channel reach includes a strip of disturbed willow scrub on the west bank of Pacoima Wash. In the vicinity of this side drainage, Pacoima Wash supports only alluvial sage scrub habitats. Two unnamed side outlets opposite this channel reach support willow riparian and are also included in the survey area for this channel reach.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
|------------------|--------------------|-------|-------|---------------------------|-----------------------|--|
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Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: LA County Department of Public Works Soft-Bottom Channels State: CA County: Los Angeles

USGS Quad Name: Torrance Elevation: 8 (meters)

Creek, River, or Lake Name: Wilmington Drain (Reach 27)

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Survey Coordinates: Start: E 380800 N 3739755 UTM Datum: WGS84 (See instructions)
 Stop: E 380667 N 3740748 UTM Zone: 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

****Fill in additional site information on back of this page****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey Time | Number of Adult WIFLs | Estimated Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator. | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | |
|--|-----------------------------|-----------------------------|---------------------------------|---------------------------------------|--|--|--|-----|-------|-------|
| | | | | | | | # Birds | Sex | UTM E | UTM N |
| Survey # 1 Observer(s): B. Daniels | Date: 05/29/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0915 | | | | | | 0 | | | |
| | Stop: 1100 | | | | | | | | | |
| | Total hrs: 1.75 | | | | | | | | | |
| Survey # 2 Observer(s): B. Daniels | Date: 06/12/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0820 | | | | | | 0 | | | |
| | Stop: 1000 | | | | | | | | | |
| | Total hrs: 1.7 | | | | | | | | | |
| Survey # 3 Observer(s): B. Daniels | Date: 06/21/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0810 | | | | | | 0 | | | |
| | Stop: 0930 | | | | | | | | | |
| | Total hrs: 1.3 | | | | | | | | | |
| Survey # 4 Observer(s): B. Daniels | Date: 06/28/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0830 | | | | | | 0 | | | |
| | Stop: 1000 | | | | | | | | | |
| | Total hrs: 1.5 | | | | | | | | | |
| Survey # 5 Observer(s): B. Daniels | Date: 07/11/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0530 | | | | | | 0 | | | |
| | Stop: 0645 | | | | | | | | | |
| | Total hrs: 1.25 | | | | | | | | | |
| Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. | | Total Adult Residents | Total Pairs | Total Territories | Total Nests | Were any WIFLs color-banded? Yes <input type="checkbox"/> No <input type="checkbox"/> | | | | |
| Total survey hrs: | 7.5 | 0 | 0 | 0 | 0 | If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | |

Reporting Individual: Brian E. Daniels Date Report Completed: 2013
 US Fish & Wildlife Service Permit #: TE821401-4 State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Brian E. Daniels Phone # 626-351-2000
 Affiliation BonTerra Consulting E-mail bdaniels@bonterraconsulting.com
 Site Name LA County Department of Public Works Soft-Bottom Channels Date report Completed 2013
 Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.
 Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) LA County Department of Public Works (Flood Maintenance Division)

Length of area surveyed: 1.0 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
- Mixed native and exotic plants (mostly native, 50 - 90% native)
- Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
- Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.
Salix sp., Baccharis salicifolia

Average height of canopy (Do not include a range): 10 m (meters)

- Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features.
Attach additional sheets if necessary.

Non-native vegetation was being removed from Wilmington Drain during these surveys. This activity was funded and permitted through the City of LA's Proposition "O" Clean Water Project.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
|------------------|--------------------|-------|-------|---------------------------|-----------------------|--|
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Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: LA County Department of Public Works Soft-Bottom Channels State: CA County: Los Angeles

USGS Quad Name: Point Dume Elevation: 353 (meters)

Creek, River, or Lake Name: Triunfo Creek Channel (Reach 28)

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No

Survey Coordinates: Start: E 335965 N 3776074 UTM Datum: WGS84 (See instructions)

Stop: E 335802 N 3776450 UTM Zone: 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

****Fill in additional site information on back of this page****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey Time | Number of Adult WIFLs | Estimated Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator. | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | | |
|--|-----------------------------|-----------------------------|---------------------------------|---------------------------------------|--|---|--|-----|-------|-------|--|
| | | | | | | | # Birds | Sex | UTM E | UTM N | |
| Survey # 1 Observer(s): B. Daniels | Date: 05/29/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0610 | | | | | | 0 | | | | |
| | Stop: 0715 | | | | | | | | | | |
| | Total hrs: 1.1 | | | | | | | | | | |
| Survey # 2 Observer(s): B. Daniels | Date: 06/12/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0545 | | | | | | 0 | | | | |
| | Stop: 0630 | | | | | | | | | | |
| | Total hrs: 0.75 | | | | | | | | | | |
| Survey # 3 Observer(s): B. Daniels | Date: 06/21/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0600 | | | | | | 0 | | | | |
| | Stop: 0700 | | | | | | | | | | |
| | Total hrs: 1.0 | | | | | | | | | | |
| Survey # 4 Observer(s): B. Daniels | Date: 06/28/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0600 | | | | | | 0 | | | | |
| | Stop: 0700 | | | | | | | | | | |
| | Total hrs: 1.0 | | | | | | | | | | |
| Survey # 5 Observer(s): B. Daniels | Date: 07/11/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0830 | | | | | | 0 | | | | |
| | Stop: 0930 | | | | | | | | | | |
| | Total hrs: 1.0 | | | | | | | | | | |
| Overall Site Summary <small>Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals.</small> | | Total Adult Residents | Total Pairs | Total Territories | Total Nests | Were any WIFLs color-banded? Yes <u> </u> No <u> </u> | | | | | |
| Total survey hrs: 4.85 | | 0 | 0 | 0 | 0 | If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | | |

Reporting Individual: Brian E. Daniels Date Report Completed: 2013

US Fish & Wildlife Service Permit #: TE821401-4 State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Brian E. Daniels Phone # 626-351-2000
 Affiliation BonTerra Consulting E-mail bdaniels@bonterraconsulting.com
 Site Name LA County Department of Public Works Soft-Bottom Channels Date report Completed 2013
 Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.
 Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) LA County Department of Public Works (Flood Maintenance Division)

Length of area surveyed: 0.4 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
 Mixed native and exotic plants (mostly native, 50 - 90% native)
 Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
 Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix sp., Baccharis salicifolia

Average height of canopy (Do not include a range): 6 m (meters)

- Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features).
Attach additional sheets if necessary.

The survey area for this channel reach consists of a dense strip of willow woodland upstream of the Mulholland Highway and more scrubby willows with mule fat scrub downstream of the bridge.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
|------------------|--------------------|-------|-------|---------------------------|-----------------------|--|
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Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: LA County Department of Public Works Soft-Bottom Channels State: CA County: Los Angeles

USGS Quad Name: Azusa Elevation: 195 (meters)

Creek, River, or Lake Name: Beatty Channel Outlet into San Gabriel River (Reach 39)

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Survey Coordinates: Start: E 413530 N 3778309 UTM Datum: WGS84 (See instructions)
 Stop: E 414168 N 3778620 UTM Zone: 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

****Fill in additional site information on back of this page****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey Time | Number of Adult WIFLs | Estimated Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding;-potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator. | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | |
|---|-----------------------------|-----------------------------------|---------------------------------|---------------------------------------|--|--|--|-----|-------|-------|
| | | | | | | | # Birds | Sex | UTM E | UTM N |
| Survey # 1 Observer(s): B. Daniels | Date: 05/23/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0910 | | | | | | | | | |
| | Stop: 1230 | | | | | | | | | |
| | Total hrs: 3.3 | | | | | | | | | |
| Survey # 2 Observer(s): B. Daniels | Date: 06/10/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0920 | | | | | | | | | |
| | Stop: 1130 | | | | | | | | | |
| | Total hrs: 2.2 | | | | | | | | | |
| Survey # 3 Observer(s): B. Daniels | Date: 06/17/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0840 | | | | | | | | | |
| | Stop: 1100 | | | | | | | | | |
| | Total hrs: 2.3 | | | | | | | | | |
| Survey # 4 Observer(s): B. Daniels | Date: 06/25/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0900 | | | | | | | | | |
| | Stop: 1045 | | | | | | | | | |
| | Total hrs: 1.75 | | | | | | | | | |
| Survey # 5 Observer(s): B. Daniels | Date: 07/5/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0915 | | | | | | | | | |
| | Stop: 1100 | | | | | | | | | |
| | Total hrs: 1.75 | | | | | | | | | |
| Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total survey hrs: 11.3 | | Total Adult Residents 0 | Total Pairs 0 | Total Territories 0 | Total Nests 0 | Were any WIFLs color-banded? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | |

Reporting Individual: Brian E. Daniels Date Report Completed: 2013
 US Fish & Wildlife Service Permit #: TE821401-4 State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Brian E. Daniels Phone # 626-351-2000
 Affiliation BonTerra Consulting E-mail bdaniels@bonterraconsulting.com
 Site Name LA County Department of Public Works Soft-Bottom Channels Date report Completed 2013
 Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.
 Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) LA County Department of Public Works (Flood Maintenance Division)

Length of area surveyed: 0.7 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
 Mixed native and exotic plants (mostly native, 50 - 90% native)
 Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
 Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix sp., Baccharis salicifolia

Average height of canopy (Do not include a range): 2 m (meters)

- Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features).
Attach additional sheets if necessary.

The survey area for this side channel outlet into the San Gabriel River consists primarily of mule fat scrub. There is also some alluvial sage scrub and basically three small patches of willow scrub in the survey area.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
|------------------|--------------------|-------|-------|---------------------------|-----------------------|--|
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Attach additional sheets if necessary

Appendix 1. Willow Flycatcher Survey and Detection Form

Always check the U.S. Fish and Wildlife Service Arizona Ecological Services Field Office web site (<http://www.fws.gov/southwest/es/arizona/>) for the most up-to-date version.

Willow Flycatcher (WIFL) Survey and Detection Form (revised April 2010)

Site Name Reaches 406/43a/43b State CA County Los Angeles
 USGS Quad Name Baldwin Park; Whittier Elevation _____ (meters)
 Creek, River, Wetland, or Lake Name San Gabriel River
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes ___ No ___

Survey Coordinates: Start: E 0401220 N 3762839 UTM Datum NAD83 (See instructions)
 Stop: E 0406552 N 3761887 UTM Zone 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

**** Fill in additional site information on back of this page ****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey time | Number of Adult WIFLs | Estimate d Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding; potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | |
|---|--|-----------------------------|-------------------------------------|---------------------------------------|--|--|---|-----|-------|-------|
| | | | | | | | # Birds | Sex | UTM E | UTM N |
| Survey # 1 Observer(s) <u>Jim Pike</u> | Date <u>5/22</u> Start <u>6:20</u> Stop <u>10:45</u> Total hrs <u>4.5</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>N</u> | | | | | |
| Survey # 2 Observer(s) <u>Jim Pike</u> | Date <u>6/1</u> Start <u>6:15</u> Stop <u>10:40</u> Total hrs <u>4.5</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>N</u> | | | | | |
| Survey # 3 Observer(s) <u>Jim Pike</u> | Date <u>6/14</u> Start <u>5:50</u> Stop <u>10:20</u> Total hrs <u>4.5</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>N</u> | | | | | |
| Survey # 4 Observer(s) <u>Jim Pike</u> | Date <u>6/28</u> Start <u>5:45</u> Stop <u>10:15</u> Total hrs <u>4.5</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>N</u> | | | | | |
| Survey # 5 Observer(s) <u>Jim Pike</u> | Date <u>7/12</u> Start <u>6:10</u> Stop <u>10:10</u> Total hrs <u>4</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>N</u> | | | | | |
| Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total Survey Hrs | | Total Adult Residents | Total Pairs | Total Territories | Total Nests | Were any Willow Flycatchers color-banded? Yes ___ No <u>X</u> If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | |
| | | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | | | | | |

Reporting Individual Jim Pike Date Report Completed 7/29/13
 US Fish and Wildlife Service Permit # TE 832946-4 State Wildlife Agency Permit # SC-9788
 Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

32 A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Jim Pike Phone # 714-968-7977
 Affiliation subcontracting biologist for Bonterra E-mail jpike44@earthlink.net
 Site Name Reaches 406943a/43b Date Report Completed 7/29/13

Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous years? Yes No Not Applicable
 If site name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.

Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) Los Angeles Dept of Public Works

Length of area surveyed: 4.34 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
- Mixed native and exotic plants (mostly native, 50 - 90% native)
- Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
- Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific names.
Salix gooddingii, Salix exigua, Baccharis salicifolia

Average height of canopy (Do not include a range): 13 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections; 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests; 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
|------------------|--------------------|-------|-------|------------------------|--------------------|---|
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Attach additional sheets if necessary.

Appendix 1. Willow Flycatcher Survey and Detection Form

Always check the U.S. Fish and Wildlife Service Arizona Ecological Services Field Office web site (<http://www.fws.gov/southwest/es/arizona/>) for the most up-to-date version.

Willow Flycatcher (WIFL) Survey and Detection Form (revised April 2010)

Site Name Reaches 71/75/79/80 State CA County Los Angeles
 USGS Quad Name Newhall Elevation _____ (meters)
 Creek, River, Wetland, or Lake Name Santa Clara River
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes ___ No ___

Survey Coordinates: Start: E 0356081 N 3810291 UTM Datum NAD 83 (See instructions)
 Stop: E 0358349 N 3807296 UTM Zone 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

**** Fill in additional site information on back of this page ****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey time | Number of Adult WIFLs | Estimate d Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding; potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | |
|---|--|-----------------------------|-------------------------------------|---------------------------------------|--|--|---|-----|-------|-------|
| | | | | | | | # Birds | Sex | UTM E | UTM N |
| Survey # 1 Observer(s) Jim Pike | Date <u>5/23</u> Start <u>6:05</u> Stop <u>9:35</u> Total hrs <u>3.5</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>N</u> | | | | | |
| Survey # 2 Observer(s) Jim Pike | Date <u>6/2</u> Start <u>6:10</u> Stop <u>9:45</u> Total hrs <u>3.5</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>N</u> | | | | | |
| Survey # 3 Observer(s) Jim Pike | Date <u>6/16</u> Start <u>6:05</u> Stop <u>9:40</u> Total hrs <u>3.5</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>N</u> | | | | | |
| Survey # 4 Observer(s) Jim Pike | Date <u>6/30</u> Start <u>5:50</u> Stop <u>9:00</u> Total hrs <u>3.2</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>N</u> | | | | | |
| Survey # 5 Observer(s) Jim Pike | Date <u>7/13</u> Start <u>6:20</u> Stop <u>9:35</u> Total hrs <u>3.25</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>N</u> | | | | | |
| Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total Survey Hrs | | Total Adult Residents | Total Pairs | Total Territories | Total Nests | Were any Willow Flycatchers color-banded? Yes ___ No <u>X</u> If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | |
| | | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | | | | | |

Reporting Individual Jim Pike Date Report Completed 7/29/13
 US Fish and Wildlife Service Permit # TE 832946-4 State Wildlife Agency Permit # SC-9788
Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

32 A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Jim Pike Phone # 714-968-7977
 Affiliation Subcontracting biologist for Bonterra E-mail jpike44@earthlink.net
 Site Name Reaches 7175/79/80 Date Report Completed 7/29/13
 Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous years? Yes No Not Applicable
 If site name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.

Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) Los Angeles Dept of Public Works

Length of area surveyed: 3.46 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
- Mixed native and exotic plants (mostly native, 50 - 90% native)
- Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
- Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific names.
Populus fremontii; Salix laevigata

Average height of canopy (Do not include a range): 14 (meters)

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections; 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests; 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
|------------------|--------------------|-------|-------|------------------------|--------------------|---|
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Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: LA County Department of Public Works Soft-Bottom Channels State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 336 (meters)

Creek, River, or Lake Name: Santa Clara River Main Channel (Reach 82) and Santa Clara River - South Bank West of McBean Pkwy (Reach 109)

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes ~~X~~ No

Survey Coordinates: Start: E 356404 N 3810290 UTM Datum: WGS84 (See instructions)

Stop: E 355493 N 3810815 UTM Zone: 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

****Fill in additional site information on back of this page****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey Time | Number of Adult WIFLs | Estimated Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding; potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator. | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | |
|--|-----------------------------|-----------------------------|---------------------------------|---------------------------------------|--|---|--|------|--------|---------|
| | | | | | | | # Birds | Sex | UTM E | UTM N |
| Survey # 1 Observer(s): B. Daniels | Date: 05/24/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0600 | | | | | | 0 | | | |
| | Stop: 0925 | | | | | | | | | |
| | Total hrs: 3.4 | | | | | | | | | |
| Survey # 2 Observer(s): B. Daniels | Date: 06/11/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0600 | | | | | | 0 | | | |
| | Stop: 0845 | | | | | | | | | |
| | Total hrs: 2.75 | | | | | | | | | |
| Survey # 3 Observer(s): B. Daniels | Date: 06/18/13 | 2 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0530 | | | | | | 1 | unk | 356079 | 3810302 |
| | Stop: 0915 | | | | | | 1 | male | 355509 | 3810832 |
| | Total hrs: 3.75 | | | | | | | | | |
| Survey # 4 Observer(s): B. Daniels | Date: 06/26/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0600 | | | | | | 0 | | | |
| | Stop: 0900 | | | | | | | | | |
| | Total hrs: 3.0 | | | | | | | | | |
| Survey # 5 Observer(s): B. Daniels | Date: 07/9/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0710 | | | | | | 0 | | | |
| | Stop: 0945 | | | | | | | | | |
| | Total hrs: 2.6 | | | | | | | | | |
| Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. | | Total Adult Residents | Total Pairs | Total Territories | Total Nests | Were any WIFLs color-banded? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | | | |
| Total survey hrs: 15.5 | | 0 | 0 | 0 | 0 | If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | |

Reporting Individual: Brian E. Daniels Date Report Completed: 2013
 US Fish & Wildlife Service Permit #: TE821401-4 State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Brian E. Daniels Phone # 626-351-2000
 Affiliation BonTerra Consulting E-mail bdaniels@bonterraconsulting.com
 Site Name LA County Department of Public Works Soft-Bottom Channels Date report Completed 2013
 Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.
 Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) LA County Department of Public Works (Flood Maintenance Division)

Length of area surveyed: 1.1 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
- Mixed native and exotic plants (mostly native, 50 - 90% native)
- Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
- Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix sp., Baccharis salicifolia, Populus fremontii

Average height of canopy (Do not include a range): 8 m (meters)

- Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features).
Attach additional sheets if necessary.

Main channel of the Santa Clara River downstream (west) of McBean Parkway in Santa Clarita. This is at the confluence with San Francisquito Creek. Some relatively old riparian forest is present along north side of channel that is dominated by cottonwoods. The rest of the channel contains relatively young riparian habitats dominated by willows.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
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Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: LA County Department of Public Works Soft Bottom Channels State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 323 (meters)

Creek, River, or Lake Name: Castaic Creek (Reach # 87/97)

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No

Survey Coordinates: Start: E 351348 N 3812994 UTM Datum: NAD83 (See instructions)
 Stop: E 351684 N 3812307 UTM Zone: 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

****Fill in additional site information on back of this page****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey Time | Number of Adult WIFLs | Estimated Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding; potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator. | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | |
|--|-----------------------------|-----------------------------------|---------------------------------|---------------------------------------|--|--|--|-----|-------|-------|
| | | | | | | | # Birds | Sex | UTM E | UTM N |
| Survey # 1 Observer(s): A. Heredia | Date: 05/22/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0820 | | | | | | | | | |
| | Stop: 0920 | | | | | | | | | |
| | Total hrs: 1.0 | | | | | | | | | |
| Survey # 2 Observer(s): A. Heredia | Date: 06/07/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0820 | | | | | | | | | |
| | Stop: 0950 | | | | | | | | | |
| | Total hrs: 1.5 | | | | | | | | | |
| Survey # 3 Observer(s): A. Heredia | Date: 06/18/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0630 | | | | | | | | | |
| | Stop: 0800 | | | | | | | | | |
| | Total hrs: 1.5 | | | | | | | | | |
| Survey # 4 Observer(s): A. Heredia | Date: 07/02/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0630 | | | | | | | | | |
| | Stop: 0800 | | | | | | | | | |
| | Total hrs: 1.5 | | | | | | | | | |
| Survey # 5 Observer(s): A. Heredia | Date: 07/12/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0745 | | | | | | | | | |
| | Stop: 0950 | | | | | | | | | |
| | Total hrs: 2.1 | | | | | | | | | |
| Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total survey hrs: <u>7.6</u> | | Total Adult Residents 0 | Total Pairs 0 | Total Territories 0 | Total Nests 0 | Were any WIFLs color-banded? Yes <u> </u> No <u> </u> If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | |

Reporting Individual: Amber Oneal Heredia Date Report Completed: 2013
 US Fish & Wildlife Service Permit #: TE148554-2 State Wildlife Agency Permit #: SC-6761

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Amber Oneal Heredia Phone # 714-444-9199
 Affiliation BonTerra Consulting E-mail aheredia@bonterraconsulting.com
 Site Name LA County Department of Public Works Soft Bottom Channels Date report Completed 2013
 Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.
 Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) LA County Department of Public Works (Hired by Flood Maintenance Division)

Length of area surveyed: Reach 87/97 (0.80 km) (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
 Mixed native and exotic plants (mostly native, 50 - 90% native)
 Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
 Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix lasiolepis, Populus fremontii, Tamarix sp.

Average height of canopy (Do not include a range): 15m (meters)

- Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features).

Attach additional sheets if necessary.

There is good cottonwood-willow riparian forest at this location; however, the amount of Tamarisk in this reach has increased substantially since the last surveys in 2011.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
|------------------|--------------------|-------|-------|---------------------------|-----------------------|--|
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Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: LA County Department of Public Works Soft-Bottom Channels State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 353 (meters)

Creek, River, or Lake Name: Bouquet Canyon Channel (Reach 103)

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Survey Coordinates: Start: E 358459 N 3810685 UTM Datum: WGS84 (See instructions)

Stop: E 358161 N 3810426 UTM Zone: 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

****Fill in additional site information on back of this page****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey Time | Number of Adult WIFLs | Estimated Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding; potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator. | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | | |
|--|-----------------------------|-----------------------------|---------------------------------|---------------------------------------|--|---|--|-----|-------|-------|--|
| | | | | | | | # Birds | Sex | UTM E | UTM N | |
| Survey # 1 Observer(s): B. Daniels | Date: 05/30/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0800 | | | | | | 0 | | | | |
| | Stop: 0900 | | | | | | | | | | |
| | Total hrs: 1.0 | | | | | | | | | | |
| Survey # 2 Observer(s): B. Daniels | Date: 06/13/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0745 | | | | | | 0 | | | | |
| | Stop: 0900 | | | | | | | | | | |
| | Total hrs: 1.3 | | | | | | | | | | |
| Survey # 3 Observer(s): B. Daniels | Date: 06/20/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0730 | | | | | | 0 | | | | |
| | Stop: 0830 | | | | | | | | | | |
| | Total hrs: 1.0 | | | | | | | | | | |
| Survey # 4 Observer(s): B. Daniels | Date: 06/27/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0810 | | | | | | 0 | | | | |
| | Stop: 0915 | | | | | | | | | | |
| | Total hrs: 1.1 | | | | | | | | | | |
| Survey # 5 Observer(s): B. Daniels | Date: 07/10/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0700 | | | | | | 0 | | | | |
| | Stop: 0800 | | | | | | | | | | |
| | Total hrs: 1.0 | | | | | | | | | | |
| Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. | | Total Adult Residents | Total Pairs | Total Territories | Total Nests | Were any WIFLs color-banded? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | | |
| Total survey hrs: <u>5.4</u> | 0 | 0 | 0 | 0 | | | | | | | |

Reporting Individual: Brian E. Daniels Date Report Completed: 2013
 US Fish & Wildlife Service Permit #: TE821401-4 State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Brian E. Daniels Phone # 626-351-2000
 Affiliation BonTerra Consulting E-mail bdaniels@bonterraconsulting.com
 Site Name LA County Department of Public Works Soft-Bottom Channels Date report Completed 2013
 Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.
 Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) LA County Department of Public Works (Flood Maintenance Division)

Length of area surveyed: 0.4 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
 Mixed native and exotic plants (mostly native, 50 - 90% native)
 Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
 Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix sp., Baccharis salicifolia, Populus fremontii

Average height of canopy (Do not include a range): 10 m (meters)

- Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features).
Attach additional sheets if necessary.

A dense grove of willows and cottonwoods follows the active channel that is at the foot of the levee on the right (west) bank. Otherwise the channel contains scattered mule fat and invasives such as arundo donax.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
|------------------|--------------------|-------|-------|---------------------------|-----------------------|--|
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Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: LA County Department of Public Works Soft Bottom Channels State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 315 (meters)

Creek, River, or Lake Name: Castaic Creek (Reach # 104)

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No

Survey Coordinates: Start: E 351547 N 3812915 UTM Datum: NAD83 (See instructions)
 Stop: E 351791 N 3812352 UTM Zone: 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

****Fill in additional site information on back of this page****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey Time | Number of Adult WIFLs | Estimated Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding; potential threats [livestock, cowbirds, Diorhabda spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator. | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | | |
|--|-----------------------------|-----------------------------|---------------------------------|---------------------------------------|--|---|--|-----|-------|-------|--|
| | | | | | | | # Birds | Sex | UTM E | UTM N | |
| Survey # 1 Observer(s): A. Heredia | Date: 05/22/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0650 | | | | | | 0 | | | | |
| | Stop: 0820 | | | | | | | | | | |
| | Total hrs: 1.5 | | | | | | | | | | |
| Survey # 2 Observer(s): A. Heredia | Date: 06/07/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0720 | | | | | | 0 | | | | |
| | Stop: 0820 | | | | | | | | | | |
| | Total hrs: 1.0 | | | | | | | | | | |
| Survey # 3 Observer(s): A. Heredia | Date: 06/18/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0900 | | | | | | 0 | | | | |
| | Stop: 0945 | | | | | | | | | | |
| | Total hrs: 0.8 | | | | | | | | | | |
| Survey # 4 Observer(s): A. Heredia | Date: 07/02/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0800 | | | | | | 0 | | | | |
| | Stop: 0840 | | | | | | | | | | |
| | Total hrs: 0.7 | | | | | | | | | | |
| Survey # 5 Observer(s): A. Heredia | Date: 07/12/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N | |
| | Start: 0645 | | | | | | 0 | | | | |
| | Stop: 0745 | | | | | | | | | | |
| | Total hrs: 1.0 | | | | | | | | | | |
| Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. | | Total Adult Residents | Total Pairs | Total Territories | Total Nests | Were any WIFLs color-banded? Yes <u> </u> No <u> </u> If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | | |
| Total survey hrs: <u>5</u> | 0 | 0 | 0 | 0 | | | | | | | |

Reporting Individual: Amber Oneal Heredia Date Report Completed: 2013
 US Fish & Wildlife Service Permit #: TE148554-2 State Wildlife Agency Permit #: SC-6761

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Amber Oneal Heredia Phone # 714-444-9199
 Affiliation BonTerra Consulting E-mail aheredia@bonterraconsulting.com
 Site Name LA County Department of Public Works Soft Bottom Channels Date report Completed 2013
 Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.
 Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) LA County Department of Public Works (Hired by Flood Maintenance Division)

Length of area surveyed: Reach 104 (0.52 km) (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
 Mixed native and exotic plants (mostly native, 50 - 90% native)
 Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
 Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix lasiolepis, Tamarix sp., Populus fremontii

Average height of canopy (Do not include a range): 15 m (meters)

- Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features).
Attach additional sheets if necessary.

Habitat at this location is primarily alluvial sage scrub with scattered mule fat and a few patches of large willows and cottonwoods near the outflow of a drain.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
|------------------|--------------------|-------|-------|---------------------------|-----------------------|--|
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Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: LA County Department of Public Works Soft-Bottom Channels State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 352 (meters)

Creek, River, or Lake Name: San Francisquito Channel (Reach 105)

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Survey Coordinates: Start: E 356915 N 3812709 UTM Datum: WGS84 (See instructions)
 Stop: E 356841 N 3812286 UTM Zone: 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

****Fill in additional site information on back of this page****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey Time | Number of Adult WIFLs | Estimated Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding; potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator. | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | |
|---|-----------------------------|-----------------------------|---------------------------------|---------------------------------------|--|--|--|-------|--------|---------|
| | | | | | | | # Birds | Sex | UTM E | UTM N |
| Survey # 1 Observer(s): B. Daniels | Date: 05/24/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0930 | | | | | | 0 | | | |
| | Stop: 1010 | | | | | | | | | |
| | Total hrs: 0.7 | | | | | | | | | |
| Survey # 2 Observer(s): B. Daniels | Date: 06/11/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0855 | | | | | | 0 | | | |
| | Stop: 0945 | | | | | | | | | |
| | Total hrs: 0.8 | | | | | | | | | |
| Survey # 3 Observer(s): B. Daniels | Date: 06/18/13 | 2 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0920 | | | | | | 2 | males | 356731 | 3812706 |
| | Stop: 1015 | | | | | | | | | |
| | Total hrs: 0.9 | | | | | | | | | |
| Survey # 4 Observer(s): B. Daniels | Date: 06/26/13 | 1 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0905 | | | | | | 1 | unk | 356898 | 3812686 |
| | Stop: 1115 | | | | | | | | | |
| | Total hrs: 2.2 | | | | | | | | | |
| Survey # 5 Observer(s): B. Daniels | Date: 07/9/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | Start: 0600 | | | | | | 0 | | | |
| | Stop: 0700 | | | | | | | | | |
| | Total hrs: 1.0 | | | | | | | | | |
| Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. | | Total Adult Residents | Total Pairs | Total Territories | Total Nests | Were any WIFLs color-banded? Yes <input type="checkbox"/> No <input type="checkbox"/> | | | | |
| Total survey hrs: 5.6 | | 0 | 0 | 0 | 0 | If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | |

Reporting Individual: Brian E. Daniels Date Report Completed: 2013
 US Fish & Wildlife Service Permit #: TE821401-4 State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Brian E. Daniels Phone # 626-351-2000
 Affiliation BonTerra Consulting E-mail bdaniels@bonterraconsulting.com
 Site Name LA County Department of Public Works Soft-Bottom Channels Date report Completed 2013
 Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.
 Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) LA County Department of Public Works (Flood Maintenance Division)

Length of area surveyed: 0.4 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
- Mixed native and exotic plants (mostly native, 50 - 90% native)
- Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
- Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Baccharis salicifolia, Salix sp., Populus fremontii

Average height of canopy (Do not include a range): 2 m (meters)

- Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features).
Attach additional sheets if necessary.

Except for two side outlets with water, this channel is dry and dominated by mule fat. Willows dominate the outlets; couple dry patches of willows and cottonwoods on west side of channel.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
|------------------|--------------------|-------|-------|---------------------------|-----------------------|--|
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Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: LA County Department of Public Works Soft Bottom Channels State: CA County: Los Angeles

USGS Quad Name: Newhall Elevation: 351 (meters)

Creek, River, or Lake Name: Castaic Creek (Reach # 106)

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes X No

Survey Coordinates: Start: E 351666 N 3817198 UTM Datum: NAD83 (See instructions)
 Stop: E 351781 N 3816785 UTM Zone: 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

****Fill in additional site information on back of this page****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey Time | Number of Adult WIFLs | Estimated Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding; potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator. | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | |
|---|-----------------------------|-----------------------------|---------------------------------|---------------------------------------|--|--|--|--------|---------|-------|
| | | | | | | | # Birds | Sex | UTM E | UTM N |
| Survey # 1 Observer(s): A. Heredia | Date: 05/22/13 | 1 | 0 | 0 | N | Visually observed individual foraging. Individual was silent, no vocalizations. Not observed on any follow-up surveys, presumed to be a migrant. | # Birds | Sex | UTM E | UTM N |
| | 1 | | | | | | | 351721 | 3817090 | |
| | Start: 0920 | | | | | | | | | |
| | Stop: 1015 | | | | | | | | | |
| Total hrs: 0.9 | | | | | | | | | | |
| Survey # 2 Observer(s): A. Heredia | Date: 06/07/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | 0 | | | | | | | | | |
| | Start: 0620 | | | | | | | | | |
| | Stop: 0720 | | | | | | | | | |
| Total hrs: 1.0 | | | | | | | | | | |
| Survey # 3 Observer(s): A. Heredia | Date: 06/18/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | 0 | | | | | | | | | |
| | Start: 0800 | | | | | | | | | |
| | Stop: 0900 | | | | | | | | | |
| Total hrs: 1.0 | | | | | | | | | | |
| Survey # 4 Observer(s): A. Heredia | Date: 07/02/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | 0 | | | | | | | | | |
| | Start: 0840 | | | | | | | | | |
| | Stop: 0910 | | | | | | | | | |
| Total hrs: 0.5 | | | | | | | | | | |
| Survey # 5 Observer(s): A. Heredia | Date: 07/12/13 | 0 | 0 | 0 | N | | # Birds | Sex | UTM E | UTM N |
| | 0 | | | | | | | | | |
| | Start: 0950 | | | | | | | | | |
| | Stop: 1020 | | | | | | | | | |
| Total hrs: 0.5 | | | | | | | | | | |
| Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. | | Total Adult Residents | Total Pairs | Total Territories | Total Nests | Were any WIFLs color-banded? Yes No | | | | |
| Total survey hrs: 3.9 | | 0 | 0 | 0 | 0 | If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | |

Reporting Individual: Amber Oneal Heredia Date Report Completed: 2013
 US Fish & Wildlife Service Permit #: TE148554-2 State Wildlife Agency Permit #: SC-6761

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Amber Oneal Heredia Phone # 714-444-9199
 Affiliation BonTerra Consulting E-mail aheredia@bonterraconsulting.com
 Site Name LA County Department of Public Works Soft Bottom Channels Date report Completed 2013
 Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.
 Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) LA County Department of Public Works (Hired by Flood Maintenance Division)

Length of area surveyed: Reach 106 (0.43 km) (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
 Mixed native and exotic plants (mostly native, 50 - 90% native)
 Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
 Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix lasiolepis, Tamarix sp., Baccharis salicifolia

Average height of canopy (Do not include a range): 12 m (meters)

- Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features).

Attach additional sheets if necessary.

Habitat at this location is somewhat degraded. Although there is a willow canopy, the understory is lacking, there is trash along the reach, and it is heavily invaded by Tamarisk. The drainage is limited to a channel between the Interstate-5 and the Castaic Sports Complex.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
|------------------|--------------------|-------|-------|---------------------------|-----------------------|--|
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Attach additional sheets if necessary

Willow Flycatcher (WIFL) Survey and Detection Form (revised April, 2010)

Site Name: LA County Department of Public Works Soft-Bottom Channels State: CA County: Los Angeles

USGS Quad Name: Newhall and Val Verde Elevation: 361 (meters)

Creek, River, or Lake Name: Hasley Canyon Channel (Reach 110)

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Survey Coordinates: Start: E 349511 N 3813766 UTM Datum: WGS84 (See instructions)
 Stop: E 350785 N 3812746 UTM Zone: 11

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

****Fill in additional site information on back of this page****

| Survey # Observer(s) (Full Name) | Date (m/d/y) Survey Time | Number of Adult WIFLs | Estimated Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding-potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator. | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | |
|--|-----------------------------|-----------------------------|---------------------------------|---------------------------------------|--|--|--|-----|-------|-------|
| | | | | | | | # Birds | Sex | UTM E | UTM N |
| Survey # 1 Observer(s): B. Daniels | Date: 05/30/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0610 | | | | | | | | | |
| | Stop: 0745 | | | | | | | | | |
| | Total hrs: 1.6 | | | | | | | | | |
| Survey # 2 Observer(s): B. Daniels | Date: 06/13/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0550 | | | | | | | | | |
| | Stop: 0730 | | | | | | | | | |
| | Total hrs: 1.7 | | | | | | | | | |
| Survey # 3 Observer(s): B. Daniels | Date: 06/20/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0545 | | | | | | | | | |
| | Stop: 0715 | | | | | | | | | |
| | Total hrs: 1.5 | | | | | | | | | |
| Survey # 4 Observer(s): B. Daniels | Date: 06/27/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0545 | | | | | | | | | |
| | Stop: 0700 | | | | | | | | | |
| | Total hrs: 1.25 | | | | | | | | | |
| Survey # 5 Observer(s): B. Daniels | Date: 07/10/13 | 0 | 0 | 0 | N | | 0 | | | |
| | Start: 0545 | | | | | | | | | |
| | Stop: 0645 | | | | | | | | | |
| | Total hrs: 1.0 | | | | | | | | | |
| Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total survey hrs: <u>7.1</u> | | Total Adult Residents | Total Pairs | Total Territories | Total Nests | Were any WIFLs color-banded? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | |
| | | 0 | 0 | 0 | 0 | | | | | |

Reporting Individual: Brian E. Daniels

Date Report Completed: 2013

US Fish & Wildlife Service Permit #: TE821401-4

State Wildlife Agency Permit #: SC-4535

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Brian E. Daniels Phone # 626-351-2000
 Affiliation BonTerra Consulting E-mail bdaniels@bonterraconsulting.com
 Site Name LA County Department of Public Works Soft-Bottom Channels Date report Completed 2013
 Was this site surveyed in a previous year? Yes No Unknown
 Did you verify that this site name is consistent with that used in previous yrs? Yes No Not Applicable
 If name is different, what name(s) was used in the past? _____
 If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize below.
 Did you survey the same general area during each visit to this site this year? Yes No If no, summarize below.
 Management Authority for Survey Area: Federal Municipal/County State Tribal Private
 Name of Management Entity or Owner (e.g., Tonto National Forest) LA County Department of Public Works (Flood Maintenance Division)

Length of area surveyed: 1.75 (km)

Vegetation Characteristics: Check (only one) category that best describes the predominant tree/shrub foliar layer at this site:

- Native broadleaf plants (entirely or almost entirely, > 90% native)
 Mixed native and exotic plants (mostly native, 50 - 90% native)
 Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
 Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix sp., Baccharis salicifolia, Populus fremontii

Average height of canopy (Do not include a range): 5 m (meters)

- Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections;
 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests;
 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features).

Attach additional sheets if necessary.

A fairly narrow and dry channel that transitions from dense woodland downstream to sparse shrubs at its upstream terminus.

Territory Summary Table. Provide the following information for each verified territory at your site.

| Territory Number | All Dates Detected | UTM E | UTM N | Pair Confirmed? Y or N | Nest Found? Y or N | Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior) |
|------------------|--------------------|-------|-------|---------------------------|-----------------------|--|
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| | | | | | | |

Attach additional sheets if necessary

APPENDIX G

LEAST BELL'S VIREO SURVEY DATA SUMMARY SHEETS

LEAST BELL'S VIREO SURVEY DATA SUMMARY

(Reaches 40b, 43a, 43b)

| Site Information | | | |
|--|--|------------------------------|---------|
| Project Title: | Los Angeles County Soft Bottom Channel Surveys | | |
| Landowner: | Los Angeles Dept of Public Works | | |
| Survey Information | | | |
| Surveyors: | Jim Pike | Year: | 2013 |
| Survey Begin Coordinates | | Survey End Coordinates | |
| Datum | | | |
| Northing: | 3762839 | Northing: | 3767887 |
| Easting: | 0401220 | Easting: | 0406552 |
| | | | " " |
| Survey Length (Km) | Total Number of Surveys | Total Number of Survey Hours | |
| 4.34 | 9 | 40.5 | |
| Least Bell's Vireo Detection Information | | | |

Number of males that were:

| | | | |
|-------------------|------------------------|----|---|
| | Paired: | 6 | Based on observation of female, nest, young, or nesting behavior (nest-building, food carrying). |
| | Undetermined Status: | 2 | The total number of resident males not confirmed as paired. |
| "Non-territorial" | Transient: | 3 | Only detected once despite repeated surveys, or were not detected at the same location for more than 2 weeks. |
| | Total number of males: | 11 | The sum of the three categories above. |

Coordinates for LBVI Territories (continue on second sheet if necessary)

| Territory ID | Northing | Easting | Status/Comments (e.g. paired) |
|--------------|----------|---------|------------------------------------|
| LBV 1 | 3764482 | 0402103 | Two nests degraded |
| LBV 2 | 3764665 | 0402273 | Female and 1 fledgling |
| LBV 3 | 3764811 | 0402384 | Unpaired |
| LBV 4 | 3767041 | 0405403 | Fledged 4 |
| LBV 5 | 3767122 | 0405626 | 3 fledglings; second nest with egg |
| LBV 6 | 3767194 | 0405700 | 8 fledglings from 2 nests |
| LBV 7 | 3767363 | 0406132 | Unpaired |
| LBV 8 | 3767732 | 0406487 | Paired |
| | | | |
| | | | |
| | | | |

Reach 43a

Reach 40b

DATA WORKBOOKS OF VEGETATION TRANSECTS

[Page left blank on purpose]

E-1

PRE-CLEARANCE TRANSECT DATA

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| Reach: 1 | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|------------------|------------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|--|
| Transect Number: 1 | | | | | | | | | | | | | | | |
| Vegetation | Vegetation species | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Cyperus sp. | non-native grass | Ricinus communis | Salix lasiolepis cross | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | |
| 1 | | | | 1 | 1 | | | | | | 1 | | | | |
| 2 | | | | 1 | 1 | | | | | | 1 | | | | |
| 3 | | | | 1 | 1 | | | | | | 1 | | | | |
| 4 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 5 | | | 1 | 1 | | | 1 | | | | 1 | | | | |
| 6 | | | 1 | 1 | | | 1 | | | | 1 | | | | |
| 7 | | | | 1 | 1 | | | | | | 1 | | | | |
| 8 | | | | 1 | 1 | | | | | | 1 | | | | |
| 9 | | | | 1 | 1 | | | | | | 1 | | | | |
| 10 | | | | 1 | 1 | | | | | | 1 | | | | |
| 11 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 12 | | | | 1 | 1 | | | | | | 1 | | | | |
| 13 | | | | 1 | 1 | | | | | | 1 | | | | |
| 14 | | | | 1 | 1 | | | | | | 1 | | | | |
| 15 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 16 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 17 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 18 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 19 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 20 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 21 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 22 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 23 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 24 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 25 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 26 | 1 | | | 1 | | | 1 | | | | 1 | | | | |
| 27 | 1 | | | 1 | | | 1 | | | | | | | 1 | |
| 28 | 1 | | | 1 | | | 1 | | | | | | | 1 | |
| 29 | 1 | | | 1 | | | 1 | | | | | | | 1 | |
| 30 | | | | 1 | 1 | | | | | | | | 1 | | |
| 31 | | | | 1 | 1 | | | | | | | | 1 | | |
| 32 | | | | 1 | 1 | | | | | | | | 1 | | |
| 33 | | | | 1 | 1 | | | | | | | | 1 | | |
| 34 | | | | 1 | 1 | | | | | | | | 1 | | |
| 35 | | | | 1 | 1 | | | | | | | | 1 | | |
| 36 | | | | 1 | 1 | | | | | | | | 1 | | |
| 37 | | | | 1 | 1 | | | | | | | | 1 | | |
| 38 | | | | 1 | 1 | | | | | | | | 1 | | |

| Reach: 1 | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|------------------|------------------------|------------------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|---|
| Transect Number: 1 | | | | | | | | | | | | | | | |
| Vegetation | Vegetation species | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Cyperus sp. | non-native grass | Ricinus communis | Salix lasiolepis cross | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | |
| 39 | | | | 1 | 1 | | | | | | | | 1 | | |
| 40 | | | | 1 | 1 | | | | | | | | 1 | | |
| 41 | | | | 1 | 1 | | | | | | | | 1 | | |
| 42 | 1 | | | 1 | | | 1 | | | | | | | 1 | |
| 43 | 1 | | | 1 | | | 1 | | | | | | | 1 | |
| 44 | 1 | | | 1 | | | 1 | | | | | | | 1 | |
| 45 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 46 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 47 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 48 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 49 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 50 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 51 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 52 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 53 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 54 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 55 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 56 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 57 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 58 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 59 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 60 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 61 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 62 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 63 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 64 | | | | 1 | 1 | | | | | | 1 | | | | |
| 65 | | | | 1 | 1 | | | | | | 1 | | | | |
| Totals | 7 | 32 | 2 | 65 | 24 | 0 | 41 | 0 | 0 | 0 | 47 | 0 | 12 | 6 | 0 |
| | | | | | Summary | | | | Percent: | | | | | | |
| | | | | | Total Native Class Cover | | | | 100 | | | | | | |
| | | | | | Total Non-native Class Cover | | | | 63.07692 | | | | | | |
| | | | | | Total Unvegetated | | | | 0 | | | | | | |

| Reach: 2 | | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|-------------------------|------------------------------|----------------------------|------------------|------------------------------------|---------------------------|------------------------------|--------------------------|----------------------|-------------------------------------|-------------------------------|------------------------|--------------------------|---------------------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|-----|----------------------|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vegetation | <i>Apium graveolens</i> | <i>Artemisia douglasiana</i> | <i>Lonicera subspicata</i> | non-native grass | <i>Parthenocissus quinquefolia</i> | <i>Phacelia cicutaria</i> | <i>Piptatherum miliaceum</i> | <i>Platanus racemosa</i> | <i>Rubus ursinus</i> | <i>Rorippa nasturtium-aquaticum</i> | <i>Rumex sp. (Non-native)</i> | <i>Salix laevigata</i> | <i>Sonchus oleraceus</i> | <i>Tecomaria capensis</i> | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | Coarse woody debris | water | mud | water with Lemna sp. |
| 1 | | | 1 | | 1 | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 2 | | | | | 1 | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 3 | | | | | 1 | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 4 | | | 1 | | 1 | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 5 | | | 1 | | 1 | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 6 | | | | | 1 | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 7 | | | | | 1 | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 8 | | | | | | | | 1 | | | | | | | 1 | | | | | | 1 | | | | |
| 9 | | | | | | | | 1 | | | | | | | 1 | | | | | | 1 | | | | |
| 10 | | | | | 1 | | | 1 | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 11 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 12 | | | | | | | | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 13 | | | | | | | | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 14 | | | | | | | | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 15 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 16 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 17 | | | | | 1 | | | | 1 | | | 1 | | | | | 1 | | | | 1 | | | | |
| 18 | | | | | 1 | | | | 1 | | | 1 | | | | | 1 | | | | 1 | | | | |
| 19 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 20 | | | | | 1 | | | | 1 | | | 1 | | | | | 1 | | | | 1 | | | | |
| 21 | | | | | 1 | | | 1 | 1 | | | 1 | | | | | 1 | | | | 1 | | | | |
| 22 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 23 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 24 | | | | | | | | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 25 | | | | | | | | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 26 | | | | | | | | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 27 | | 1 | | | | | | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 28 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 29 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 30 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 31 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 32 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 33 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 34 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 35 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 36 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 37 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 38 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 39 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 40 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 41 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 42 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 43 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 44 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 45 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 46 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 47 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 48 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 49 | | | | | | | | | | | | 1 | 1 | | | | 1 | | | | 1 | | | | |
| 50 | | | | | | | | | | | 1 | | | | | 1 | | | | | | | | 1 | |
| 51 | | | | | | | | | | | 1 | 1 | | | | 1 | | | | | | | | 1 | |
| 52 | | | | | | | | | | | | 1 | | | | 1 | | | | | | | | 1 | |

| Reach: 2 | | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
|--------------------|-------------------------|------------------------------|------------------------------|-----------------------|------------------------|------------------|------------------------------------|-------------------------------------|-------------------------|--------------------------|---------------------------|------------------|----------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Vegetation | <i>Apium graveolens</i> | <i>Artemisia californica</i> | <i>Carduus pycnocephalus</i> | <i>Melilotus alba</i> | <i>Nerium oleander</i> | non-native grass | <i>Parthenocissus quinquefolia</i> | <i>Rorippa nasturtium-aquaticum</i> | <i>Salix lasiolepis</i> | <i>Sambucus mexicana</i> | <i>Tecomaria capensis</i> | <i>Typha sp.</i> | verbena (non-native) | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna sp. |
| 1 | | | | | 1 | | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 2 | | | | | 1 | | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 3 | | | | | 1 | | 1 | | | 1 | 1 | | | | | | 1 | | | 1 | | | | |
| 4 | | | | | | | 1 | | | 1 | 1 | | | | | | 1 | | | 1 | | | | |
| 5 | | | | | | | 1 | | | 1 | 1 | | | | | | 1 | | | 1 | | | | |
| 6 | | | | | | | 1 | | | 1 | | | | | | | 1 | | | 1 | | | | |
| 7 | | 1 | | | | | | | | 1 | | | | 1 | | | | | | 1 | | | | |
| 8 | | 1 | | | | | | | | 1 | | | | 1 | | | | | | 1 | | | | |
| 9 | | | | | | 1 | | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 10 | | | | | | 1 | | | | | | | | | 1 | | | | | 1 | | | | |
| 11 | | | | | | 1 | 1 | | | | | | | | 1 | | | | | 1 | | | | |
| 12 | | | | | | 1 | | | | | | | | | 1 | | | | | 1 | | | | |
| 13 | | | | | | 1 | | | 1 | | | | | | | | 1 | | | 1 | | | | |
| 14 | | | | | | 1 | | | 1 | | | | | | | | 1 | | | 1 | | | | |
| 15 | | | | | | 1 | | | 1 | | | | | | | | 1 | | | 1 | | | | |
| 16 | | | | | | 1 | | | 1 | | | | | | | | 1 | | | 1 | | | | |
| 17 | | | | | | 1 | | | 1 | | | | | | | | 1 | | | 1 | | | | |
| 18 | | | | | | | | | 1 | | | | | 1 | | | | | | 1 | | | | |
| 19 | | | | | | 1 | | | 1 | | | | | | | | 1 | | | 1 | | | | |
| 20 | | | | 1 | | 1 | | | 1 | | | | | | | | 1 | | | 1 | | | | |
| 21 | 1 | | | | | 1 | | | 1 | | | | | | | | 1 | | | 1 | | | | |
| 22 | | | | 1 | | | | | 1 | | | | | | | | 1 | | | 1 | | | | |
| 23 | | | | 1 | | | | | | | | | | | 1 | | | | | 1 | | | | |
| 24 | | | | 1 | | | | | | | | | | | 1 | | | | | 1 | | | | |
| 25 | | | | 1 | | | | | | | | 1 | | | | | 1 | | | 1 | | | | |
| 26 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | |
| 27 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | |
| 28 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | |
| 29 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | |
| 30 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | |
| 31 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | |
| 32 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | |
| 33 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | |
| 34 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | 1 | | | | |
| 35 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | |
| 36 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | 1 | | |
| 37 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | 1 | |
| 38 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | 1 | |
| 39 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | 1 | |
| 40 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | 1 | |
| 41 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | 1 | |
| 42 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | 1 | | |
| 43 | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | 1 | | |
| 44 | | | | | | | 1 | | | | | 1 | | | | 1 | | | | 1 | | 1 | | |
| 45 | | 1 | | | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 46 | | 1 | | | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 47 | | 1 | | | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 48 | | | | | | | 1 | | | | | | | | 1 | | | | | 1 | | | | |
| 49 | | | | | | | 1 | | | | | | | | 1 | | | | | 1 | | | | |
| 50 | | | 1 | | | | 1 | | | | | | | | 1 | | | | | 1 | | | | |
| 51 | | | 1 | | | | 1 | | | | | | | | 1 | | | | | 1 | | | | |
| 52 | | | 1 | | | | 1 | | | | | | | | 1 | | | | | 1 | | | | |

| Reach: 2 | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|------------------|-----------------------|-----------------------|----------------|-----------------|------------------|-----------------------------|------------------------------|------------------|-------------------|--------------------|-----------|----------------------|------------------------------|------------|----------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Vegetation | | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Apium graveolens | Artemisia californica | Carduus pycnocephalus | Melilotus alba | Nerium oleander | non-native grass | Parthenocissus quinquefolia | Rorippa nasturtium-aquaticum | Salix lasiolepis | Sambucus mexicana | Tecomaria capensis | Typha sp. | verbena (non-native) | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna sp. |
| 53 | | 1 | 1 | | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 54 | | 1 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | |
| 55 | | 1 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | |
| 56 | | | 1 | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | |
| 57 | | | 1 | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | |
| 58 | | | 1 | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | |
| 59 | | | 1 | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | |
| 60 | | | 1 | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | |
| 61 | | | 1 | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | |
| 62 | | | 1 | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | |
| 63 | | | 1 | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | |
| 64 | | | 1 | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | |
| 65 | | | 1 | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | |
| Totals | 1 | 8 | 14 | 5 | 3 | 12 | 23 | 2 | 10 | 7 | 5 | 20 | 1 | 20 | 22 | 23 | 0 | 0 | 0 | 56 | 0 | 5 | 0 | 4 |
| | | | | | | | | | | | | | | Summary | | Percent: | | | | | | | | |
| | | | | | | | | | | | | | | Total Native Class Cover | | 66.15385 | | | | | | | | |
| | | | | | | | | | | | | | | Total Non-native Class Cover | | 69.23077 | | | | | | | | |
| | | | | | | | | | | | | | | Total Unvegetated | | 0 | | | | | | | | |

| Reach: 2 | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
|--------------------|------------------|-----------------------------|-----------------------|-------------------|------------------------------|-----------|--------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|
| Transect Number: 3 | | | | | | | | | | | | | | | | | | |
| Vegetation | non-native grass | Parthenocissus quinquefolia | Piptatherum miliaceum | Platanus racemosa | Rorippa nasturtium-aquaticum | Salix sp. | Tecomaria capensis | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna Sp. |
| 1 | | | | 1 | | | 1 | | | | 1 | | | 1 | | | | |
| 2 | | | | 1 | | | 1 | | | | 1 | | | 1 | | | | |
| 3 | | | | 1 | | | 1 | | | | 1 | | | 1 | | | | |
| 4 | | | 1 | 1 | | | 1 | | | | 1 | | | 1 | | | | |
| 5 | | | | 1 | | | 1 | | | | 1 | | | 1 | | | | |
| 6 | | | | 1 | | | | 1 | | | | 1 | | | | | | |
| 7 | | | | 1 | | | | 1 | | | | 1 | | | | | | |
| 8 | | | | 1 | | | | 1 | | | | 1 | | | | | | |
| 9 | | | | 1 | | | | 1 | | | | 1 | | | | | | |
| 10 | | | 1 | 1 | | | | | | 1 | | | | 1 | | | | |
| 11 | | | | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 12 | | | | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 13 | | | | 1 | | | | 1 | | | | 1 | | | | | | |
| 14 | | | | 1 | | | | 1 | | | | 1 | | | | | | |
| 15 | | | | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 16 | | | | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 17 | | | | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 18 | | | | | | | | | | | 1 | | | | 1 | | | |
| 19 | | | | | | | | | | | 1 | | | | 1 | | | |
| 20 | | | | | | | 1 | | | 1 | | | 1 | | | | | |
| 21 | | | | | | | 1 | | | 1 | | | 1 | | | | | |
| 22 | | | | | | | 1 | | | 1 | | | 1 | | | | | |
| 23 | | | | | | | 1 | | | 1 | | | 1 | | | | | |
| 24 | | | | | | | 1 | | | 1 | | | 1 | | | | | |
| 25 | | | | | | | 1 | | | 1 | | | 1 | | | | | |
| 26 | | | | | | | 1 | | | 1 | | | 1 | | | | | |
| 27 | | 1 | | | | | 1 | | | | 1 | | | 1 | | | | |
| 28 | | 1 | | | | | 1 | | | | 1 | | | 1 | | | | |
| 29 | | 1 | | | | | 1 | | | | 1 | | | 1 | | | | |
| 30 | 1 | | | | | | 1 | | | | 1 | | | 1 | | | | |
| 31 | 1 | | | | | | 1 | | | | 1 | | | 1 | | | | |
| 32 | 1 | | | | | | 1 | | | | 1 | | | 1 | | | | |
| 33 | 1 | | | | | | 1 | | | | 1 | | | 1 | | | | |
| 34 | 1 | | | | | | 1 | | | | 1 | | | 1 | | | | |
| 35 | | | | | | | 1 | | | | 1 | | 1 | | | | | |
| Totals | 5 | 3 | 2 | 17 | 5 | 16 | 5 | 14 | 0 | 19 | 2 | 14 | 0 | 19 | 2 | 0 | 0 | 0 |
| Summary | | | | | | | | Percent: | | | | | | | | | | |

| Reach: 3 | | | | | | | | | | | | | | | | | | |
|--------------------|----------------------|-----------------------|------------------|-------------------|-----------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----|----------------------|--|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | |
| Vegetation | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| | Phacelia ramosissima | Piptatherum miliaceum | non-native grass | Quercus agrifolia | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna sp. | | | |
| 1 | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 2 | | | | | | | | 1 | | | 1 | | | | | | | |
| 3 | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 4 | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 5 | | | | | | | | 1 | | | 1 | | | | | | | |
| 6 | 1 | | | | 1 | | | | | | 1 | | | | | | | |
| 7 | 1 | | | | 1 | | | | | | 1 | | | | | | | |
| 8 | | | | | | | | 1 | | | 1 | | | | | | | |
| 9 | | | | | | | | 1 | | | 1 | | | | | | | |
| 10 | | | | | | | | 1 | | | 1 | | | | | | | |
| 11 | 1 | 1 | | | | | 1 | | | | 1 | | | | | | | |
| 12 | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 13 | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 14 | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 15 | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 16 | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 17 | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 18 | | | 1 | | | 1 | | | | | 1 | | | | | | | |
| 19 | | | 1 | | | 1 | | | | | 1 | | | | | | | |
| 20 | 1 | | | | 1 | | | | | | 1 | | | | | | | |
| 21 | 1 | | 1 | | | | 1 | | | | 1 | | | | | | | |
| 22 | 1 | | | | 1 | | | | | | 1 | | | | | | | |
| 23 | 1 | | | | 1 | | | | | | 1 | | | | | | | |
| 24 | 1 | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 25 | 1 | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 26 | 1 | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 27 | 1 | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 28 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 29 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 30 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 31 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 32 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 33 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 34 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 35 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 36 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 37 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 38 | | | | 1 | 1 | | | | | | 1 | | | | | | | |

| | | | | | | | | | | | | | | | | | | |
|--------------------|----------------------|-----------------------|------------------|-------------------|------------------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|--|--|--|
| Reach: 3 | | | | | | | | | | | | | | | | | | |
| Transect Number: 1 | | | | | | | | | | | | | | | | | | |
| | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Vegetation | Phacelia ramosissima | Piptatherum miliaceum | non-native grass | Quercus agrifolia | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna sp. | | | |
| 39 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 40 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| Totals | 11 | 10 | 3 | 17 | 22 | 11 | 2 | 5 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | Summary | | | | Percent: | | | | | | | | | |
| | | | | | Total Native Class Cover | | | | 60 | | | | | | | | | |
| | | | | | Total Non-native Class Cover | | | | 32.5 | | | | | | | | | |
| | | | | | Total Unvegetated | | | | 12.5 | | | | | | | | | |

| Reach: 4 | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|----------------------|----------------|----------------|------------------|--------------|--------|------------|------|-----------------------|------|-------------|---|---------------------|-------|-----|----------------------|
| Transect Number: 1 | | | | | | | | | | | | | | | | |
| Vegetation | Artemisa douglasiana | Lolium perenne | Melilotus alba | non-native grass | Salix exigua | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter* This leaf litter is non-native grass thatch without live green grass | coarse woody debris | water | mud | water with Lemna sp. |
| 1 | | | | | | | | | 1 | | | 1 | | | | |
| 2 | | 1 | | | | | 1 | | | | | 1 | | | | |
| 3 | | 1 | | | | | 1 | | | | | 1 | | | | |
| 4 | | | | | | | | | 1 | | | 1 | | | | |
| 5 | | 1 | | | | | 1 | | | | | 1 | | | | |
| 6 | | | | | | | | | 1 | | | 1 | | | | |
| 7 | | | | | | | | | 1 | | | 1 | | | | |
| 8 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 9 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 10 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 11 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 12 | | | | | | | | | 1 | | | 1 | | | | |
| 13 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 14 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 15 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 16 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 17 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 18 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 19 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 20 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 21 | | | 1 | 1 | | | 1 | | | | | 1 | | | | |
| 22 | | | 1 | 1 | | | 1 | | | | | 1 | | | | |
| 23 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 24 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 25 | | | | | | | | | 1 | | | 1 | | | | |
| 26 | | | 1 | | | | 1 | | | 1 | | | | | | |
| 27 | | | 1 | 1 | | | 1 | | | | | 1 | | | | |
| 28 | | | 1 | 1 | | | 1 | | | | | 1 | | | | |
| 29 | | | 1 | 1 | | | 1 | | | | | 1 | | | | |
| 30 | | | 1 | | | | 1 | | | 1 | | | | | | |
| 31 | | | 1 | 1 | | | 1 | | | | | 1 | | | | |
| 32 | | | 1 | 1 | | | 1 | | | | | 1 | | | | |
| 33 | | | 1 | 1 | | | 1 | | | | | 1 | | | | |
| 34 | | | | 1 | | | 1 | | | 1 | | | | | | |
| 35 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 36 | | | | 1 | | | 1 | | | | | 1 | | | | |
| 37 | | | 1 | | | | 1 | | | | | 1 | | | | |
| 38 | | | 1 | | | | 1 | | | 1 | | | | | | |

| Reach: 4 | | | | | | | | | | | | | | | | | | |
|--------------------|----------------------|----------------|----------------|------------------|--------------|------------------------------|------------|------|----------|-----------------------|-------------|---|---------------------|-------|-----|----------------------|---|---|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | |
| Vegetation | Artemisa douglasiana | Lolium perenne | Melilotus alba | non-native grass | Salix exigua | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | | | | | | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter* This leaf litter is non-native grass thatch without live green grass | coarse woody debris | water | mud | water with Lemna sp. | | |
| 39 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 40 | | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 41 | | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 42 | | | | | | | | | 1 | | | 1 | | | | | | |
| 43 | | | | | | | | | 1 | | | 1 | | | | | | |
| 44 | | | | | | | | | 1 | | | 1 | | | | | | |
| 45 | | | | | | | | | 1 | | | 1 | | | | | | |
| 46 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 47 | | | 1 | | 1 | | | 1 | | | | 1 | | | | | | |
| 48 | | | 1 | 1 | | | 1 | | | | | 1 | | | | | | |
| 49 | | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 50 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 51 | | | 1 | 1 | | | 1 | | | | | 1 | | | | | | |
| 52 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 53 | | | 1 | | 1 | | 1 | | | | | 1 | | | | | | |
| 54 | | | 1 | | 1 | | 1 | | | | | 1 | | | | | | |
| 55 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 56 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 57 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 58 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 59 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 60 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 61 | 1 | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 62 | 1 | | | | | | 1 | | | | | 1 | | | | | | |
| 63 | | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 64 | | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 65 | | | | | | | | | 1 | | | 1 | | | | | | |
| Totals | 2 | 3 | 28 | 32 | 3 | | 0 | 53 | 1 | 11 | | 12 | 0 | 53 | 0 | 0 | 0 | 0 |
| | | | | | | Summary | | | | Percent: | | | | | | | | |
| | | | | | | Total Native Class Cover | | | | 1.538462 | | | | | | | | |
| | | | | | | Total Non-native Class Cover | | | | 83.07692 | | | | | | | | |
| | | | | | | Total Unvegetated | | | | 16.92308 | | | | | | | | |

| Reach: 4 | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
|------------------------------|------------------------------|----------------------------|-------------------------|------------------|-----------------------|---------------------|------------------------|-----------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|----------|---|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | |
| Vegetation | <i>Baccharis salicifolia</i> | <i>Hirschfeldia incana</i> | <i>Lactuca serriola</i> | non-native grass | <i>Meillotus alba</i> | <i>Salix exigua</i> | <i>Salix laevigata</i> | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | concrete | |
| 39 | | | | | | | 1 | 1 | | | | 1 | | | | | | |
| 40 | | | | | | | 1 | 1 | | | | 1 | | | | | | |
| 41 | | | | | | | 1 | 1 | | | | 1 | | | | | | |
| 42 | | | | 1 | | | | | | 1 | | 1 | | | | | | |
| 43 | | | | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 44 | | | | 1 | 1 | | | | 1 | | | | | 1 | | | | |
| 45 | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 46 | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 47 | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 48 | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 49 | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 50 | | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 51 | 1 | | | | 1 | 1 | | | | 1 | | | | 1 | | | | |
| 52 | 1 | | | | 1 | 1 | | | | 1 | | | | 1 | | | | |
| 53 | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 54 | | | | 1 | 1 | | | | 1 | | | | | 1 | | | | |
| 55 | 1 | | | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 56 | 1 | | | | 1 | | | | | 1 | | | | 1 | | | | |
| 57 | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 58 | | | 1 | 1 | 1 | | | | 1 | | | | | 1 | | | | |
| 59 | | | | | 1 | | | | 1 | | | | | 1 | | | | |
| 60 | | 1 | | | | | | | 1 | | | | | 1 | | | | |
| 61 | | 1 | | | | | | | 1 | | | | | 1 | | | | |
| 62 | | 1 | | | | | | | 1 | | | | | 1 | | | | |
| 63 | | 1 | | | | | | | 1 | | | | | 1 | | | | |
| 64 | | | | | | | | | | | 1 | | | 1 | | | | |
| Totals | 11 | 4 | 1 | 9 | 23 | 24 | 8 | 22 | 16 | 15 | 11 | 22 | 4 | 34 | 0 | 0 | 4 | 0 |
| Summary | | | | | | | | Percent: | | | | | | | | | | |
| Total Native Class Cover | | | | | | | | 57.8125 | | | | | | | | | | |
| Total Non-native Class Cover | | | | | | | | 48.4375 | | | | | | | | | | |
| Total Unvegetated | | | | | | | | 17.1875 | | | | | | | | | | |

| Reach: 5 | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|----------------|------------------------------|------------------|----------------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| Reading per foot: | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Ambrosia psilostachya | Eucalyptus sp. | Rorippa nasturtium-aquaticum | Salix lasiolepis | Salix lasiolepis xwith red | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap |
| 1 | | 1 | | 1 | | | | | 1 | | | 1 | | | | | |
| 2 | | 1 | | 1 | | | | | 1 | | | 1 | | | | | |
| 3 | | 1 | | 1 | | | | | 1 | | | 1 | | | | | |
| 4 | | 1 | | 1 | | | | | 1 | | | 1 | | | | | |
| 5 | | 1 | | 1 | | | | | 1 | | | 1 | | | | | |
| 6 | | 1 | | 1 | | | | | 1 | | | | | | 1 | | |
| 7 | | | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 8 | | | | 1 | | 1 | | | | | | | 1 | | | | |
| 9 | | | | 1 | | 1 | | | | | | | 1 | | | | |
| 10 | | | | 1 | | 1 | | | | | | | 1 | | | | |
| 11 | | | | 1 | | 1 | | | | | | | 1 | | | | |
| 12 | | | | 1 | | 1 | | | | | | | 1 | | | | |
| 13 | | | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 14 | | | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 15 | | | | | 1 | 1 | | | | | | | | | 1 | | |
| 16 | | | 1 | | 1 | | | | 1 | | | | 1 | | | | |
| 17 | | | 1 | | 1 | | | | 1 | | | | | | 1 | | |
| 18 | | | 1 | | 1 | | | | 1 | | | | | | 1 | | |
| 19 | | | 1 | | 1 | | | | 1 | | | | | | 1 | | |
| 20 | 1 | | | | 1 | 1 | | | | | | 1 | | | | | |
| 21 | 1 | | | | 1 | 1 | | | | | | 1 | | | | | |
| 22 | 1 | | | | 1 | 1 | | | | | | 1 | | | | | |
| 23 | 1 | | | | 1 | 1 | | | | | | 1 | | | | | |
| 24 | 1 | | | | 1 | 1 | | | | | | 1 | | | | | |
| 25 | 1 | | | | 1 | 1 | | | | | | 1 | | | | | |
| 26 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 27 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 28 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 29 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 30 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 31 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 32 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 33 | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 34 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 35 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 36 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 37 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 38 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 39 | | | | | 1 | 1 | | | | | | 1 | | | | | |

| Reach: 5 | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|----------------|------------------------------|------------------|----------------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading per foot: | Ambrosia psilostachya | Eucalyptus sp. | Rorippa nasturtium-aquaticum | Salix lasiolepis | Salix lasiolepis xwith red | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap |
| 40 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 41 | | | | | 1 | 1 | | | | | | | | | | | 1 |
| 42 | | | | | 1 | 1 | | | | | | | | | | | 1 |
| 43 | | | | | 1 | 1 | | | | | | | | | | | 1 |
| 44 | | | | | 1 | 1 | | | | | | | | | | | 1 |
| 45 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 46 | | | | | 1 | 1 | | | | | | | | | | | 1 |
| 47 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 48 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 49 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 50 | | | | | 1 | 1 | | | | | | | | | | | 1 |
| Totals | 6 | 6 | 7 | 14 | 36 | 37 | 0 | 13 | 0 | 0 | 0 | 29 | 0 | 9 | 5 | 0 | 7 |
| | | | | | | Total Class Cover: | | | | | | | | | | | |
| | | | | | | Native | | | | 100 | | | | | | | |
| | | | | | | non-native | | | | 26 | | | | | | | |
| | | | | | | no vegetation | | | | 0 | | | | | | | |

| Reach: 5 | | | | | | | | | | | | | | | | | |
|--------------------|---------------------|-----------------|------------------|------------------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|
| Transect Number: 2 | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading per foot: | Hirschfeldia incana | Malosma laurina | Nicotiana glauca | Rorippa nasturtium-aquaticum | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap |
| 1 | | 1 | | | | 1 | | | | 1 | | | | | | | |
| 2 | | 1 | 1 | | | | | | 1 | | | 1 | | | | | |
| 3 | 1 | | 1 | | | | | | 1 | | | 1 | | | | | |
| 4 | | | 1 | | | | 1 | | | 1 | | | | | | | |
| 5 | | | 1 | | | | 1 | | | | | 1 | | | | | |
| 6 | | | 1 | | | | 1 | | | | | | | 1 | | | |
| 7 | | | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 8 | | | | 1 | 1 | | | | 1 | | | | | 1 | | | |
| 9 | | | | | | 1 | | | | | 1 | | | | | | |
| 10 | | | 1 | | | | | | 1 | | | | | 1 | | | |
| 11 | | | 1 | 1 | | | | | 1 | | | | | | 1 | | |
| 12 | | | | | 1 | 1 | | | | | | | | | 1 | | |
| 13 | | | | | 1 | 1 | | | | | | | | | 1 | | |
| 14 | | | | 1 | 1 | | | | 1 | | | | | 1 | | | |
| 15 | | | | 1 | 1 | | | | 1 | | | | | 1 | | | |
| 16 | | | | | 1 | 1 | | | | 1 | | | | | 1 | | |
| 17 | | | | | 1 | 1 | | | | 1 | | | | 1 | | | |
| 18 | | | | | 1 | 1 | | | | 1 | | | | 1 | | | |
| 19 | | | | 1 | 1 | | | | 1 | | | | | 1 | | | |
| 20 | | | | 1 | 1 | | | | 1 | | | | | 1 | | | |
| 21 | | | | 1 | 1 | | | | 1 | | | | | 1 | | | |
| 22 | | | | | | | | | 1 | | | | | 1 | | | |
| 23 | | | | | | | | | 1 | | | | | | | 1 | |
| 24 | | | | | | | | | 1 | | | | | | | 1 | |
| 25 | | | | | | | | | 1 | | | | | | | 1 | |
| 26 | | | | | | | | | 1 | | | | | | | 1 | |
| 27 | | | | | | | | | 1 | | | | | | | 1 | |
| 28 | | | | | | | | | 1 | | | | | | | 1 | |
| 29 | | | | | | | | | 1 | | | | | | | 1 | |
| 30 | | | | | | | | | 1 | | | | | | | 1 | |
| 31 | | | | | | | | | 1 | | | | | | | 1 | |
| 32 | | | | | | | | | 1 | | | | | | | 1 | |
| 33 | | | | | | | | | 1 | | | | | | | 1 | |
| 34 | | | | | | | | | 1 | | | | | | | 1 | |
| 35 | | | | | | | | | 1 | | | | | | | 1 | |
| 36 | | | | | | | | | 1 | | | | | | | 1 | |
| 37 | | | | | | | | | 1 | | | | | | | 1 | |
| 38 | | | | | | | | | 1 | | | | | | | 1 | |
| 39 | | | | | | | | | 1 | | | | | | | 1 | |

| Reach: 5 | | | | | | | | | | | | | | | | | |
|--------------------|---------------------|-----------------|------------------|------------------------------|-----------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|
| Transect Number: 2 | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading per foot: | Hirschfeldia incana | Malosma laurina | Nicotiana glauca | Rorippa nasturtium-aquaticum | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap |
| 40 | | | | | | | | | 1 | | | | | | | | 1 |
| 41 | | | | | | | | | 1 | | | | | | | | 1 |
| 42 | | | | | | | | | 1 | | | | | | | | 1 |
| 43 | | | | | | | | | 1 | | | | | | | | 1 |
| 44 | | | | | | | | | 1 | | | | | | | | 1 |
| 45 | | | | | | | | | 1 | | | | | | | | 1 |
| 46 | | | | | | | | | 1 | | | | | | | | 1 |
| 47 | | | | | | | | | 1 | | | | | | | | 1 |
| 48 | | | | | | | | | 1 | | | | | | | | 1 |
| 49 | | | | | | | | | 1 | | | | | | | | 1 |
| 50 | | | | | | | | | 1 | | | | | | | | 1 |
| Totals | 1 | 2 | 8 | 8 | 13 | 7 | 4 | 10 | 29 | 2 | 1 | 3 | 0 | 11 | 5 | 0 | 28 |
| | | | | | | Total Class Cover: | | | | | | | | | | | |
| | | | | | | Native | | | | 34 | | | | | | | |
| | | | | | | non-native | | | | 28 | | | | | | | |
| | | | | | | no vegetation | | | | 58 | | | | | | | |

| Reach: 5 | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|--------------------|---------|------------------|--------------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|--------------|
| Transect Number: 3 | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Hedera helix | non-native grasses | Rorripa | Salix lasiolepis | Schinus terebinthifolius | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | metal debris |
| 1 | | | | 1 | | 1 | | | | | | 1 | | | | | |
| 2 | | | | 1 | | 1 | | | | | | | | | | 1 | |
| 3 | | | | 1 | | 1 | | | | | | 1 | | | | | |
| 4 | | | | 1 | | 1 | | | | | | 1 | | | | | |
| 5 | | | | 1 | | 1 | | | | | | 1 | | | | | |
| 6 | | | | 1 | | 1 | | | | | | 1 | | | | | |
| 7 | | | | 1 | | 1 | | | | | | 1 | | | | | |
| 8 | | | | 1 | | 1 | | | | | | 1 | | | | | |
| 9 | | | | 1 | | 1 | | | | | | | | 1 | | | |
| 10 | | | | 1 | | 1 | | | | | | | | 1 | | | |
| 11 | | | | 1 | | 1 | | | | | | | | 1 | | | |
| 12 | | | | 1 | | 1 | | | | | | 1 | | | | | |
| 13 | | | | 1 | | 1 | | | | | | | | 1 | | | |
| 14 | | | | 1 | | 1 | | | | | | | | 1 | | | |
| 15 | | | | 1 | | 1 | | | | | | | | 1 | | | |
| 16 | | 1 | | 1 | | | | 1 | | | | | | 1 | | | |
| 17 | | | 1 | 1 | | | | 1 | | | | | | 1 | | | |
| 18 | | | | 1 | | 1 | | | | | | | | 1 | | | |
| 19 | | | | 1 | | 1 | | | | | | | | 1 | | | |
| 20 | | | | 1 | | 1 | | | | | | | | 1 | | | |
| 21 | | | | 1 | 1 | | | 1 | | | | | | 1 | | | |
| 22 | | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| 23 | | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| 24 | 1 | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| 25 | | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| 26 | | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| 27 | 1 | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| 28 | 1 | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| 29 | | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| 30 | | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| Totals | 3 | 1 | 1 | 30 | 10 | 18 | 0 | 12 | 0 | 0 | 0 | 17 | 0 | 3 | 9 | 0 | 1 |
| | | | | | | Total Class Cover: | | | | | | | | | | | |
| | | | | | | Native | | | | 100 | | | | | | | |
| | | | | | | non-native | | | | 40 | | | | | | | |
| | | | | | | no vegetation | | | | 0 | | | | | | | |

| Reach: 7 | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|---------------------|----------------------|--------------------|--------------------|--------------|-----------------------------------|---------------|-------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|----------------------|------------------|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Baccharis salicifolia | Hirschfeldia incana | Leptochloa uninervia | Ludwigia peploides | non-native grasses | Salix exigua | Salix lasiolepis (Mid size trees) | Solanum xanti | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | water with Lemna sp. | ungROUTED riprap |
| 1 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 2 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 3 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 4 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 5 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 6 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 7 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 8 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 9 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 10 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 11 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 12 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 13 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 14 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 15 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 16 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 17 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 18 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 19 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 20 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 21 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 22 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 23 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 24 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 25 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 26 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 27 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 28 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 29 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 30 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 31 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 32 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 33 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 34 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 35 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 36 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 37 | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 38 | 1 | | | | 1 | | 1 | | | 1 | | | | | | | | | 1 | |
| 39 | 1 | | | | 1 | | 1 | | | 1 | | | | | | | | | 1 | |
| 40 | 1 | | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 41 | | | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 42 | | | | | 1 | | 1 | | | 1 | | | | | | | | | 1 | |
| 43 | | | | | 1 | | 1 | | | 1 | | | | | | | | | 1 | |
| 44 | | | | | | | 1 | | | 1 | | | | | | | 1 | | | |
| 45 | | | | | | | | | | | | 1 | | | | | 1 | | | |

| Reach: 7 | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|---------------------|----------------------|--------------------|--------------------|--------------|-----------------------------------|---------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|----------------------|------------------|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Baccharis salicifolia | Hirschfeldia incana | Leptochloa uninervia | Ludwigia peploides | non-native grasses | Salix exigua | Salix lasiolepis (Mid size trees) | Solanum xanti | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | water with Lemna sp. | ungROUTED riprap |
| 46 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 47 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 48 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 49 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 50 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 51 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 52 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 53 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 54 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 55 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 56 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 57 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 58 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 59 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 60 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 61 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 62 | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 63 | | | | | | | | | | 1 | | | | | | | | | 1 | |
| 64 | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 65 | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 66 | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 67 | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 68 | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 69 | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 70 | | | | | | | | 1 | | 1 | | | | | | | 1 | | | |
| 71 | | | | | | | | 1 | | 1 | | | | | | 1 | | | | |
| 72 | | | | | | | | 1 | | 1 | | | | | | 1 | | | | |
| 73 | | | | | | | | 1 | | 1 | | | | | | 1 | | | | |
| 74 | 1 | | | | | | 1 | 1 | | 1 | | | | | | 1 | | | | |
| 75 | 1 | | | | | | 1 | 1 | | 1 | | | | | | 1 | | | | |
| 76 | 1 | | | | | | 1 | 1 | | 1 | | | | | | 1 | | | | |
| 77 | 1 | | | | | | 1 | | | 1 | | | | | | 1 | | | | |
| 78 | 1 | | | | | | 1 | 1 | | 1 | | | | | | | | | 1 | |
| 79 | | | | | | | 1 | 1 | | 1 | | | | | | | | | 1 | |
| 80 | | | | | | | 1 | 1 | | 1 | | | | | | | | | 1 | |
| 81 | | | | | | | 1 | 1 | | 1 | | | | | | | | | 1 | |
| 82 | | | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 83 | | | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 84 | | | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 85 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 86 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 87 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 88 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 89 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 90 | | | | | | | | | | | | 1 | | | | | | | 1 | |

| Reach: 7 | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|---------------------|----------------------|--------------------|--------------------|--------------|-----------------------------------|---------------|-----------|--------------------|-------------|------|----------|------|-----------------------|-------------|---------------------|-------|----------------------|------------------|----|----|---|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Baccharis salicifolia | Hirschfeldia incana | Leptochloa uninervia | Ludwigia peploides | non-native grasses | Salix exigua | Salix lasiolepis (Mid size trees) | Solanum xanti | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | water with Lemna sp. | ungROUTED riprap | | | | |
| 91 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 92 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 93 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 94 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 95 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 96 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 97 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 98 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 99 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 100 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 101 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 102 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 103 | | | | | 1 | | | | | | 1 | | | | | | | | | 1 | | | | |
| 104 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 105 | | | 1 | | | | | | | 1 | | | | | | | | | | 1 | | | | |
| 106 | | | 1 | | | | | | | 1 | | | | | | | | | | 1 | | | | |
| 107 | | | 1 | | | | | | | 1 | | | | | | | | | | 1 | | | | |
| 108 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 109 | | | | | 1 | 1 | | | | | | 1 | | | | | | | | 1 | | | | |
| 110 | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | |
| 111 | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | |
| 112 | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | |
| 113 | | 1 | | | | | | | | | | 1 | | | 1 | | | | | | | | | |
| 114 | | | | | | | | | | 1 | | | | | 1 | | | | | | | | | |
| 115 | | | | | | | | | | 1 | | | | | 1 | | | | | | | | | |
| Totals | 8 | 1 | 3 | 4 | 2 | 6 | 53 | 4 | 13 | 0 | 71 | 1 | 2 | 41 | 0 | 0 | 0 | 10 | 0 | 20 | 13 | 72 | 0 | |
| | | | | | | | | | | Total Class Cover: | | | | | | | | | | | | | | |
| | | | | | | | | | | Native | 63.47826 | | | | | | | | | | | | | |
| | | | | | | | | | | non-native | 2.608696 | | | | | | | | | | | | | |
| | | | | | | | | | | no vegetation | 35.65217 | | | | | | | | | | | | | |

| Reach: 8 | | | | | | | | | | | | | | | |
|--------------------|------------------------|---------------------|----------------------|-----------------------------|----------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|----------------|
| Transect Number: 1 | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | |
| | Echinochloa crus-galli | Medicago polymorpha | Polygonum arenastrum | Veronica anagallis-aquatica | Washingtonia robusta | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | grouted riprap |
| 1 | | | | | | | | | 1 | | | | | | 1 |
| 2 | | | | | | | | | 1 | | | | | | 1 |
| 3 | | | | | | | | | 1 | | | | | | 1 |
| 4 | | | | | | | | | 1 | | | | | | 1 |
| 5 | | | | | | | | | 1 | | | | | | 1 |
| 6 | | | | | | | | | 1 | | | | | | 1 |
| 7 | | | | | | | | | 1 | | | | | | 1 |
| 8 | | | | | | | | | 1 | | | | | | 1 |
| 9 | | | | | | | | | 1 | | | | | | 1 |
| 10 | 1 | | | | | | 1 | | | | | | | | 1 |
| 11 | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 12 | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 13 | | | | | | | | | 1 | | | | 1 | | |
| 14 | | | | | | | | | 1 | | | | 1 | | |
| 15 | | | | | | | | | 1 | | | | 1 | | |
| 16 | | | | | | | | | 1 | | | | 1 | | |
| 17 | | | | | | | | | 1 | | | | 1 | | |
| 18 | | | | | | | | | 1 | | | | 1 | | |
| 19 | | | | | | | | | 1 | | | | 1 | | |
| 20 | | | | | | | | | 1 | | | | 1 | | |
| 21 | | | | | | | | | 1 | | | | 1 | | |
| 22 | | | | | | | | | 1 | | | | 1 | | |
| 23 | | | | | | | | | 1 | | | | 1 | | |
| 24 | | | | | 1 | | 1 | | | | | | 1 | | |
| 25 | | | 1 | | 1 | | 1 | | | | | | 1 | | |
| 26 | | | | | 1 | | 1 | | | | | | 1 | | |
| 27 | | | 1 | | 1 | | 1 | | | | | | 1 | | |
| 28 | 1 | | | | | | 1 | | | | 1 | | | | |
| 29 | | | | | 1 | | 1 | | | | 1 | | | | |
| 30 | | | | | | | | | 1 | | | | | | 1 |
| 31 | | | | | | | | | 1 | | | | | | 1 |
| 32 | | | | | | | | | 1 | | | | | | 1 |
| 33 | | | | | | | | | 1 | | | | | | 1 |
| 34 | | | | | | | | | 1 | | | | | | 1 |
| 35 | | | | | | | | | 1 | | | | | | 1 |
| 36 | | | | | | | | | 1 | | | | | | 1 |
| 37 | | | | | | | | | 1 | | | | | | 1 |

| Reach: 8 | | | | | | | | | | | | | | | | | |
|--------------------|-------------------------------|----------------------------|-----------------------------|------------------------------------|-----------------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|----------------|----|---|
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading pe | <i>Echinochloa crus-galli</i> | <i>Medicago polymorpha</i> | <i>Polygonum arenastrum</i> | <i>Veronica anagallis-aquatica</i> | <i>Washingtonia robusta</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | grouted riprap | | |
| 38 | | | | | | | | | 1 | | | | | | | | 1 |
| 39 | | | | | | | | | 1 | | | | | | | | 1 |
| 40 | | | | | | | | | 1 | | | | | | | | 1 |
| Totals | 4 | 2 | 2 | 4 | 1 | 0 | 9 | 0 | 31 | 0 | 0 | 4 | 0 | 15 | | 21 | |
| | | | | | | Total Class Cover: | | | | | | | | | | | |
| | | | | | | Native | | 0 | | | | | | | | | |
| | | | | | | non-native | | 22.5 | | | | | | | | | |
| | | | | | | no vegetation | | 77.5 | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| Reach: 8 | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------------|---------------------|----------------|----------------|----------------------|-----------------------------------|-------------------------|---------------|-----------------------------|----------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|--|--|--|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Cyperus eragrostis | Echinochloa crus-galli | Medicago polymorpha | Melilotus alba | Plantago ovata | Polygonum arenastrum | Polygonum sp (large w. red spots) | Polygonum monspeliensis | Sonchus asper | Veronica anagallis-aquatica | Washingtonia robusta | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | | | |
| 1 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 2 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 3 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 4 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 5 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 6 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 7 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 8 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 9 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 10 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 11 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 12 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 13 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 14 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 15 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| 16 | | | | | | | | | 1 | | | | | | | | | | | 1 | | | | |
| 17 | | | | | | | | | 1 | | | | | | | | | | | 1 | | | | |
| 18 | | | | | | | | | 1 | | | | | | | | | | | 1 | | | | |
| 19 | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | |
| 20 | | | | | | | | | 1 | | | | | | | | | | | | 1 | | | |
| 21 | | | | | | | | | 1 | | | | | | | | | | | | 1 | | | |
| 22 | | | | | | | 1 | | 1 | | | | | | | | | | | | 1 | | | |
| 23 | | | | | | | 1 | | 1 | | | | | | | | | | | | 1 | | | |
| 24 | | | | | | | | | 1 | | | | | | | | | | | | 1 | | | |
| 25 | 1 | | | | | | | | 1 | | | | | | | | | | | | 1 | | | |
| 26 | | | | | | | | 1 | | | | | | | | | 1 | | | | | | | |
| 27 | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | |
| 28 | 1 | 1 | | | | | | | | | | | | | | | | | | | 1 | | | |
| 29 | | 1 | | | | | | | | | | | | | | | | | | | 1 | | | |
| 30 | | | | | | | | 1 | 1 | | | | | | | | | | | | 1 | | | |
| 31 | | | | 1 | | | | 1 | | | | | | | | | | | | | 1 | | | |
| 32 | | | | 1 | | | | | 1 | | | | | | | | | | | | 1 | | | |
| 33 | | 1 | | | | | | | | | | | | | | | | | | | 1 | | | |
| 34 | | | | | 4 | | | | | | | 1 | | | | | | | | | 1 | | | |
| 35 | | 1 | | | | | | | | | | | | | | | | | | | 1 | | | |
| 36 | | 1 | | 1 | | | | | | | | | | | | | | | | | 1 | | | |
| 37 | | 1 | | | | | | | | | | | | | | | 1 | | | | | | | |
| 38 | | 1 | | | | | | | | | | | | | 1 | | | | | | | | | |
| 39 | | 1 | | | | | | | | | | | | | 1 | | | | | | | | | |
| 40 | | 1 | | | | | | | | | | | | | | | | 1 | | | | | | |
| 41 | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | |
| 42 | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | |
| 43 | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | |
| 44 | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | |

| Reach: 9 | | | | | | | | | | | | | | | | | | | |
|--------------------|---------------------------------|---------------------------|-----------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------------------|-------------------|--|--|---|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | |
| Reading pe | Fraxinus dipetala, mature trees | Fraxinus dipetala, sucker | Piptatherum miliaceum | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | ungROUTED riprap | Debris - concrete | | | | | |
| 1 | 1 | | | 1 | | | | | | | | | 1 | | | | | | |
| 2 | 1 | | | 1 | | | | | 1 | | | | | | | | | | |
| 3 | 1 | | | 1 | | | | | 1 | | | | | | | | | | |
| 4 | 1 | 1 | 1 | 1 | | | | | 1 | | | | | | | | | | |
| 5 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 6 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 7 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 8 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 9 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 10 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 11 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 12 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 13 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 14 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 15 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 16 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 17 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 18 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 19 | | | | | | | 1 | | | | | | | | | | 1 | | |
| 20 | | | | | | | 1 | | 1 | | | | | | | | | | |
| 21 | | | | | | | 1 | | | | 1 | | | | | | | | |
| 22 | | | | | | | 1 | | | 1 | | | | | | | | | |
| 23 | | | | | | | 1 | | | 1 | | | | | | | | | |
| 24 | | | | | | | 1 | | | 1 | | | | | | | | | |
| 25 | | | | | | | 1 | | 1 | | | | | | | | | | |
| Totals | 4 | 1 | 1 | 4 | 0 | 0 | 21 | 1 | 4 | 3 | 1 | 14 | 1 | 1 | | | | | |
| | | | | Total Class Cover: | | | | | | | | | | | | | | | |
| | | | | Native | | | 16 | | | | | | | | | | | | |
| | | | | non-native | | | 0 | | | | | | | | | | | | |
| | | | | no vegetation | | | 84 | | | | | | | | | | | | |

| Reach: 10 | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|-----------------------|-----------------------|-------------|------------------------|---------------------|-----------------|------------------|-----------------|----------------------|-----------------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------------------|-------------|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Anemopsis californica | Artemisia douglasiana | Cyperus sp. | Echinochloa crus-galli | Hirschfeldia incana | Mellilotus alba | non-native grass | Oenothera elata | Polygonum arenastrum | Salix lasiolepis, seedlings | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with algae | geotech mat |
| 1 | | | | | | | | | | | | | | | 1 | 1 | | | | | | | |
| 2 | | | | | | | | | | | | | | | 1 | 1 | | | | | | | |
| 3 | | | | | | | | | | | | | | | 1 | 1 | | | | | | | |
| 4 | | | | | | | | | | | | | | | 1 | 1 | | | | | | | |
| 5 | | | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 6 | | | | | | | | | | | | | | | 1 | 1 | | | | | | | |
| 7 | | | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 8 | | | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 9 | | | | | 1 | | | | | | | | 1 | | | | | | | | | | 1 |
| 10 | | | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 11 | | | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 12 | | | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 13 | | | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 14 | | | | | | | | 1 | | | | 1 | | | | | | | | | | | 1 |
| 15 | 1 | | | | | | | | | 1 | | 1 | | | | | | | | | | | 1 |
| 16 | | | | | | | 1 | | | | | | 1 | | | | | | | 1 | | | |
| 17 | | | | | | | 1 | | | | | | 1 | | | | | | | 1 | | | |
| 18 | | | | | | | 1 | | | | | | 1 | | | | | | | 1 | | | |
| 19 | | | | | | | 1 | | | | | | 1 | | | | | | | 1 | | | |
| 20 | | | | 1 | | | 1 | | | | | | 1 | | | | | | | 1 | | | |
| 21 | | | | 1 | | | 1 | | | | | | 1 | | | | | | | 1 | | | |
| 22 | | | 1 | 1 | | | 1 | | | | | | 1 | | | | | | | | 1 | | |
| 23 | | | | 1 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 24 | | | | 1 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 25 | | | | | | | 1 | | | | 1 | | | 1 | | | | | | 1 | | | |
| 26 | | | | | | | 1 | | | | 1 | | | 1 | | | | | | 1 | | | |
| 27 | | | 1 | | | | 1 | | | | 1 | | | 1 | | | | | | | 1 | | |
| 28 | | | | | | | 1 | | | | 1 | | | 1 | | | | | | 1 | | | |
| 29 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 30 | | | | | | | | | | | 1 | | 1 | | | | | | | 1 | | | |
| 31 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 32 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 33 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 34 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 35 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 36 | | | | | | | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 37 | | | | | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 38 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 39 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 40 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 41 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 42 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 43 | | | | | | | | | | | | | | | 1 | | | | 1 | | | | |
| 44 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 45 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 46 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 47 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 48 | | | | | | | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 49 | | | | | | | | | | | 1 | 1 | | | | | | | | 1 | | | |

| Reach: 10 | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|-----------------------|-------------|------------------------|---------------------|-----------------|------------------|-----------------|----------------------|-----------------------------|-------------|--------------------|------------|----------|-----------------------|------|-------------|-------------|---------------------|-------|-----|------------------|-------------|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| | Anemopsis californica | Artemisia douglasiana | Cyperus sp. | Echinochloa crus-galli | Hirschfeldia incana | Mellilotus alba | non-native grass | Oenothera elata | Polygonum arenastrum | Salix lasiolepis, seedlings | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with algae | geotech mat | | |
| 50 | | | | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | |
| 51 | | | 1 | 1 | | | | | | | | 1 | | | | | | | 1 | | | | | | |
| 52 | | | 1 | 1 | | | | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 53 | | | 1 | | | 1 | | | | | | 1 | | | | | 1 | | | | | | | | |
| 54 | | 1 | | 1 | | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 55 | | | | 1 | 1 | | 1 | | | | | | 1 | | | | 1 | | | | | | | | |
| 56 | | | | 1 | 1 | | | | | | | 1 | | | | | | | | | | 1 | | | |
| 57 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | | | |
| 58 | | | | 1 | | | | 1 | | | | | 1 | | | | 1 | | | | | | | | |
| 59 | | | | | 1 | | 1 | | | | | | 1 | | | | | | | | | 1 | | | |
| 60 | | | | | 1 | | | | | | | 1 | | | | | | | | | | 1 | | | |
| 61 | | | | 1 | | | | | | | | 1 | | | | | 1 | | | | | | | | |
| 62 | | | | 1 | | | | | | | | 1 | | | | | 1 | | | | | | | | |
| 63 | | | | 1 | | | | | | | | 1 | | | | | 1 | | | | | | | | |
| 64 | | | | 1 | | | 1 | | | | | | 1 | | | | 1 | | | | | | | | |
| 65 | | | | 1 | | | | | | | | 1 | | | | | | | | | | 1 | | | |
| Totals | 1 | 1 | 5 | 5 | 12 | 6 | 14 | 2 | 2 | 1 | 9 | 7 | 21 | 9 | 28 | 5 | 0 | 10 | 0 | 28 | 4 | 4 | 14 | | |
| | | | | | | | | | | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | | | | | | | | | | Native | | 24.61538 | | | | | | | | | | | |
| | | | | | | | | | | | | non-native | | 46.15385 | | | | | | | | | | | |
| | | | | | | | | | | | | no vegetation | | 43.07692 | | | | | | | | | | | |

| Reach: 10 | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|-------------------|-------------|---------------------|---------------------|----------------|----------------------|------------------|---------------|-------------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | |
| | Carduus pycnocephalus | Conyza canadensis | Cyperus sp. | Cuscuta californica | Hirschfeldia incana | Melilotus alba | Polygonum persicaria | Raphanus sativus | Rumex crispus | Sorghum halepense | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water |
| 1 | | | | | | | | | | | | | | 1 | 1 | | | | | |
| 2 | | | | | | | | | | | | | | 1 | 1 | | | | | |
| 3 | | | | | | | | | | | | | | 1 | 1 | | | | | |
| 4 | | | | | 1 | | | | | | | | 1 | | 1 | | | | | |
| 5 | | | | | 1 | | | | | | | | 1 | | 1 | | | | | |
| 6 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | |
| 7 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | |
| 8 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | |
| 9 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | |
| 10 | | | | | 1 | | | | | | | | 1 | | 1 | | | | | |
| 11 | | | | | | | | | | | | | | 1 | 1 | | | | | |
| 12 | | | | | | | | | | | | | | 1 | 1 | | | | | |
| 13 | | | | | | | | | | | | | | 1 | | | 1 | | | |
| 14 | | | | | | | | | | | | | | 1 | | | 1 | | | |
| 15 | | | | | | | | | | | | | 1 | | | | 1 | | | |
| 16 | | | | | | | | | | | | | 1 | | | | 1 | | | |
| 17 | | | | | | | | | 1 | | | | 1 | | | | 1 | | | |
| 18 | | | | | | | | | 1 | | | | 1 | | | | 1 | | | |
| 19 | | | | | | | | | | 1 | | | 1 | | | | 1 | | | |
| 20 | | | | | | | | | | 1 | | | 1 | | | | 1 | | | |
| 21 | 1 | | | | | | | | | | | | 1 | | | | 1 | | | |
| 22 | | 1 | | | | | | | | | 1 | | | | | | 1 | | | |
| 23 | | | | | 1 | | | | | | 1 | | | | | | 1 | | | |
| 24 | 1 | | | | | | | | | | | | 1 | | | | 1 | | | |
| 25 | 1 | | | | | | | | | | | | 1 | | | | 1 | | | |
| 26 | 1 | | | | | | | | | | | | 1 | | | | 1 | | | |
| 27 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | |
| 28 | 1 | | | | 1 | | | | | | | | 1 | | | | 1 | | | |
| 29 | 1 | | | | | | | | | 1 | | | 1 | | | | 1 | | | |
| 30 | 1 | | | | | 1 | | | | | | | | 1 | | | 1 | | | |
| 31 | | | 1 | | | | | | | | | | | 1 | | | 1 | | | |
| 32 | | | 1 | | | | | | | | | | | 1 | | | 1 | | | |
| 33 | | | 1 | | | | | | | | | | | 1 | | | 1 | | | |
| 34 | | | 1 | | | | 1 | | | | | | | 1 | | | 1 | | | |
| 35 | | | 1 | | | | | | | | | | | 1 | | | 1 | | | |
| 36 | | | 1 | | | | | | | | | | | 1 | | | 1 | | | |
| 37 | | | | | | | | | | | | | 1 | | | | 1 | | | |
| 38 | | | | | | | | | | | | | 1 | | | | 1 | | | |
| 39 | | | 1 | | | | | | 1 | | | | 1 | | | | 1 | | | |
| 40 | | | 1 | | | | | | | | | | 1 | | | | 1 | | | |
| 41 | | | 1 | | | | | | | | | | 1 | | | | 1 | | | |
| 42 | | | 1 | 1 | | | 1 | | | | | | | 1 | | | 1 | | | |
| 43 | | | 1 | | | | | | | | | | | 1 | | | 1 | | | |

| Reach: 10 | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|-------------------|-------------|---------------------|---------------------|----------------|----------------------|------------------|---------------|-------------------|---------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | |
| | Carduus pycnocephalus | Conyza canadensis | Cyperus sp. | Cuscuta californica | Hirschfeldia incana | Melilotus alba | Polygonum persicaria | Raphanus sativus | Rumex crispus | Sorghum halepense | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water |
| 44 | | | 1 | | | | | | | 1 | | | 1 | | | | 1 | | | |
| 45 | | | 1 | | | | | | | | | 1 | | | | | 1 | | | |
| 46 | 1 | | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 47 | | | 1 | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 48 | | | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 49 | | | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 50 | | | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 51 | | | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 52 | 1 | | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 53 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 54 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 55 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 56 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 57 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 58 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 59 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 60 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 61 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 62 | 1 | | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 63 | | | | | | | | | | | | | | 1 | | | 1 | | | |
| 64 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 65 | | | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 66 | 1 | | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 67 | 1 | | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 68 | 1 | | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 69 | 1 | | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 70 | 1 | | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 71 | | | | | | | | | 1 | | | 1 | | | 1 | | 1 | | | |
| 72 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 73 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 74 | | | | | | 1 | | | | | | 1 | | | | | 1 | | | |
| Totals | 27 | 1 | 14 | 1 | 10 | 2 | 2 | 5 | 1 | 16 | 12 | 1 | 58 | 7 | 8 | 9 | 0 | 65 | 0 | 0 |
| | | | | | | | | | | | | Total Class Cover: | | | | | | | | |
| | | | | | | | | | | | | Native | | | | 10.81081 | | | | |
| | | | | | | | | | | | | non-native | | | | 87.83784 | | | | |
| | | | | | | | | | | | | no vegetation | | | | 10.81081 | | | | |

| Reach: 10 | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|---------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|-------------|--|--|--|
| Transect Number: 3 | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| | Melilotus alba | Polygonum sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | geotech mat | | | |
| 1 | | | | | | 1 | | | | | | | | 1 | | | |
| 2 | | | | | | 1 | | | | | | | | 1 | | | |
| 3 | | | | | | 1 | | | | | | | | 1 | | | |
| 4 | | | | | | 1 | | | | | | | | 1 | | | |
| 5 | | | | | | 1 | | | | | | | | 1 | | | |
| 6 | | | | | | 1 | | | | | | | | 1 | | | |
| 7 | | | | | | 1 | | | | | | | | 1 | | | |
| 8 | | | | | | 1 | | | | | | | | 1 | | | |
| 9 | | | | | | 1 | | | | | | | | 1 | | | |
| 10 | | | | | | 1 | | | | | | | | 1 | | | |
| 11 | | 1 | | 1 | | | | | | | | | | 1 | | | |
| 12 | | 1 | | 1 | | | | | | | | | | 1 | | | |
| 13 | | 1 | | 1 | | | | | | | | | | 1 | | | |
| 14 | | 1 | | 1 | | | | | | | | | | 1 | | | |
| 15 | | 1 | | 1 | | | | | | | | | | 1 | | | |
| 16 | | | | | | 1 | | | | | | | | 1 | | | |
| 17 | | | | | | 1 | | | | | | | | 1 | | | |
| 18 | | | | | | 1 | | | | | | | | 1 | | | |
| 19 | | | | | | 1 | | | | 1 | | | | | | | |
| 20 | | | | | | 1 | | | | | | | 1 | | | | |
| 21 | | | | | | 1 | | | | | | | 1 | | | | |
| 22 | | | | | | 1 | | | | | | | 1 | | | | |
| 23 | | | | | | 1 | | | | | | | 1 | | | | |
| 24 | | | | | | 1 | | | | | | | 1 | | | | |
| 25 | | | | | | 1 | | | | | | | 1 | | | | |
| 26 | | | | | | 1 | | | | | | | 1 | | | | |
| 27 | | | | | | 1 | | | | | | | 1 | | | | |
| 28 | | | | | | 1 | | | | | | | 1 | | | | |
| 29 | | | | | | 1 | | | | | | | 1 | | | | |
| 30 | | | | | | 1 | | | | | | | 1 | | | | |
| 31 | | | | | | 1 | | | | | | | 1 | | | | |
| 32 | | | | | | 1 | | | | | | | 1 | | | | |
| 33 | | | | | | 1 | | | | | | | 1 | | | | |
| 34 | | | | | | 1 | | | | | | | 1 | | | | |
| 35 | | | | | | 1 | | | | | | | 1 | | | | |
| 36 | | | | | | 1 | | | | | | | 1 | | | | |
| 37 | | | | | | 1 | | | | | | | 1 | | | | |
| 38 | | | | | | 1 | | | | | | | 1 | | | | |

| Reach: 10 | | | | | | | | | | | | | | | | |
|--------------------|--------------------|---------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|-------------|----|----|
| Transect Number: 3 | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Melilotus alba | Polygonum sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | geotech mat | | |
| 39 | | | | | | 1 | | | | | | | 1 | | | |
| 40 | | | | | | 1 | | | | | | | 1 | | | |
| 41 | | | | | | 1 | | | | | | | 1 | | | |
| 42 | | | | | | 1 | | | | | | | 1 | | | |
| 43 | | | | | | 1 | | | | | | | 1 | | | |
| 44 | | | | | | 1 | | | | | | | 1 | | | |
| 45 | | | | | | 1 | | | | | | | 1 | | | |
| 46 | | | | | | 1 | | | | | | | 1 | | | |
| 47 | | | | | | 1 | | | | | | | 1 | | | |
| 48 | | | | | | 1 | | | | | | | 1 | | | |
| 49 | | | | | | 1 | | | | | | | 1 | | | |
| 50 | | | | | | 1 | | | | | | | 1 | | | |
| 51 | | | | | | 1 | | | | | | | 1 | | | |
| 52 | | | | | | 1 | | | | | | | 1 | | | |
| 53 | | | | 1 | | | | | | 1 | | | | | | |
| 54 | | | | | | 1 | | | | | | | 1 | | | |
| 55 | | | | | | 1 | | | | | | | 1 | | | |
| 56 | | | | | | 1 | | | | | | | 1 | | | |
| 57 | | | | | | 1 | | | | | | | 1 | | | |
| 58 | | | | | | 1 | | | | | | | 1 | | | |
| 59 | | | | | | 1 | | | | | | | 1 | | | |
| 60 | | | | | | 1 | | | | | | | 1 | | | |
| 61 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 62 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 63 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 64 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 65 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 66 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 67 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 68 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 69 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 70 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 71 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 72 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 73 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 74 | 1 | | | 1 | | | | | | | | | | 1 | | |
| 75 | 1 | | | 1 | | | | | | | | | | 1 | | |
| Totals | 15 | 5 | | 0 | 21 | 0 | 54 | | 0 | 0 | 0 | 0 | 2 | 0 | 40 | 33 |

| | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|---------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|-------------|--|--|--|
| Reach: 10 | | | | | | | | | | | | | | | | | |
| Transect Number: 3 | | | | | | | | | | | | | | | | | |
| | Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| Reading pe | Melilotus alba | Polygonum sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | geotech mat | | | |
| | | | | | | | | | | | | | | | | | |
| | | | Total Class Cover: | | | | | | | | | | | | | | |
| | | | Native | | | 0 | | | | | | | | | | | |
| | | | non-native | | | 28 | | | | | | | | | | | |
| | | | no vegetation | | | 72 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| Reach: 10 | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|-------------|------------------------|-----------------------|---------------------|----------------|------------------|-------------------|-----------|-----------------------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|----------------------|-----|-------------------|---|
| Transect Number: 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Carduus pycnocephalus | Cyperus sp. | Echinochloa crus-galli | Euthamia occidentalis | Hirschfeldia incana | Melilotus alba | non-native grass | Sorghum halepense | Typha sp. | Veronica anagallis-aquatica | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | water with Lemna sp. | mud | ungrounted riprap | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 13 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 14 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 15 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 16 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 17 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 18 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 19 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 20 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 21 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 22 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 23 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 24 | 1 | | | | | | | | | | | 1 | | | | | | | | | | | 1 |
| 25 | 1 | | 1 | | | | | | | | | 1 | | | | | | | | | | | 1 |
| 26 | 1 | | 1 | | | | | | | | | 1 | | | | | | | | | | | 1 |
| 27 | | | 1 | | | | | | | | | 1 | | | | | | | | | | | 1 |
| 28 | | | 1 | | | | | | | | | 1 | | | | | | | | | | | 1 |
| 29 | | | 1 | | | | | | | | | 1 | | | | | | | | | | | 1 |
| 30 | | 1 | 1 | | | | | | | | | 1 | | | | | | | | | | | 1 |
| 31 | | 1 | 1 | | | | | | | | | 1 | | | | | | | | | 1 | | 1 |
| 32 | | 1 | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | 1 |
| 33 | | 1 | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | 1 |
| 34 | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | 1 |
| 35 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| 36 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| 37 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| 38 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| 39 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| 40 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| 41 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| 42 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| 43 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| 44 | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 1 |
| 45 | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 1 |
| 46 | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 1 |
| 47 | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 1 |
| 48 | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 1 |
| 49 | | | | | | | | | | | | | 1 | | | | | 1 | | | | | 1 |

| Reach: 12 | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|----------------|---------------|------------------|------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| Reading pe | Melilotus alba | Polygonum sp. | Salix gooddingii | Salix lasiolepis | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap |
| 39 | | | | | | | | | 1 | | | | | 1 | | | |
| 40 | | | | | | | | | 1 | | | | | 1 | | | |
| 41 | | | | | | | | | 1 | | | | | 1 | | | |
| 42 | | | | | | | | | 1 | | | | | 1 | | | |
| 43 | | | | | | | | | 1 | | | | | 1 | | | |
| 44 | | | | | | | | | 1 | | | | | 1 | | | |
| 45 | | | | | | | | | 1 | | | | | 1 | | | |
| 46 | | | | | | | | | 1 | | | | | 1 | | | |
| 47 | | | | | | | | | 1 | | | | | 1 | | | |
| 48 | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 49 | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 50 | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 51 | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 52 | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 53 | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 54 | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 55 | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 56 | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 57 | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 58 | | | | | 1 | 1 | | | | | | | | | 1 | | |
| 59 | | | 1 | 1 | 1 | 1 | | | | | | | | | 1 | | |
| 60 | | | 1 | 1 | 1 | 1 | | | | | | | | | | | |
| 61 | | | 1 | 1 | 1 | 1 | | | | | | 1 | | | | | |
| 62 | | | 1 | 1 | 1 | 1 | | | | | | 1 | | | | | |
| 63 | | | 1 | 1 | 1 | 1 | | | | | | 1 | | | | | |
| 64 | | | 1 | 1 | 1 | 1 | | | | | | 1 | | | | | |
| 65 | | | 1 | 1 | 1 | 1 | | | | | | 1 | | | | | |
| 66 | | | 1 | 1 | 1 | 1 | | | | | | 1 | | | | | |
| 67 | | | 1 | 1 | 1 | 1 | | | | | | 1 | | | | | |
| 68 | | | 1 | 1 | 1 | 1 | | | | | | 1 | | | | | |
| 69 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 70 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 71 | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 72 | 1 | | | | | | 1 | | | 1 | | | | | | | |
| 73 | 1 | | | | | | 1 | | | 1 | | | | | | | |
| 74 | 1 | | | | | | 1 | | | 1 | | | | | | | |
| 75 | | | | | | | | | 1 | 1 | | | | | | | |
| Totals | 3 | 3 | 19 | 10 | 39 | 44 | 6 | 0 | 25 | 4 | 0 | 12 | 0 | 36 | 2 | 10 | 11 |

| | | | | | | | | | | | | | | | | | | | |
|--------------------|----------------|---------------|------------------|------------------|-----------|--------------------|------------|----------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|--|--|
| Reach: 12 | | | | | | | | | | | | | | | | | | | |
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | |
| | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Melilotus alba | Polygonum sp. | Salix gooddingii | Salix lasiolepis | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | | | | Native | | 58.66667 | | | | | | | | | | | |
| | | | | | | non-native | | 8 | | | | | | | | | | | |
| | | | | | | no vegetation | | 33.33333 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

| Reach: 12 | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---------------------|----------------------|-------------------|---------------------|----------------|------------------|---------------|------------------------|------------------|-------------------|----------------------------|---------------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|--|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pt | Vegetation species | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Centaurea meltensis | Cotula coronopifolia | Datura stramonium | Hirschfeldia incana | Mellilotus sp. | non-native grass | Polygonum sp. | Rorippa nasturtium-aqu | Salix gooddingii | Solanum douglasii | Urtica dioica ssp. holose. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | |
| 1 | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | 1 | |
| 2 | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | 1 | |
| 3 | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | 1 | |
| 4 | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | 1 | |
| 5 | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | 1 | |
| 6 | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | 1 | |
| 7 | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | 1 | |
| 8 | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | 1 | |
| 9 | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | 1 | |
| 10 | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | 1 | |
| 11 | | | | | | | | 1 | | 1 | | 1 | | | | | | | | | | | | 1 | |
| 12 | | | | | | 1 | | 1 | | | | | | 1 | | | | | | | | 1 | | | |
| 13 | | | | | | 1 | | 1 | | | | | | 1 | | | | | | | | 1 | | | |
| 14 | | | | | | 1 | | 1 | | | | | | 1 | | | | | | | 1 | | | | |
| 15 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 16 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 17 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 18 | | | | | | | 1 | 1 | | | | | | 1 | | | | | | | | 1 | | | |
| 19 | | | | | | 1 | | 1 | | | | | | 1 | | | | | | | | 1 | | | |
| 20 | | | | | | 1 | | 1 | | | | | | 1 | | | | | | | | 1 | | | |
| 21 | | | | | | 1 | | 1 | | | | | | 1 | | | | | | | | 1 | | | |
| 22 | | | | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | |
| 23 | | | | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | |
| 24 | | | | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | |
| 25 | | | | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | |
| 26 | | | | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | |
| 27 | | | | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | |
| 28 | | | | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | |
| 29 | | | | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | |
| 30 | | | | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | |
| 31 | | | | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | |
| 32 | | 1 | | | | | | 1 | | | | | | 1 | | | | | | | | 1 | | | |
| 33 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 34 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 35 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 36 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 37 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 38 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 39 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 40 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 41 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 42 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 43 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 44 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 45 | | | | | | | | 1 | | | | 1 | | | | | | 1 | | | | | | | |
| 46 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 47 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 48 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 49 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 50 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 51 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 52 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 53 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |
| 54 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | | |

| Reach: 12 | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|----------------------------|-----------------------------|--------------------------|----------------------------|-----------------------|------------------|----------------------|-------------------------------------|-------------------------|--------------------------|-----------------------------------|----------------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pt | Vegetation species | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | <i>Centaurea meltensis</i> | <i>Cotula coronopifolia</i> | <i>Datura stramonium</i> | <i>Hirschfeldia incana</i> | <i>Mellilotus sp.</i> | non-native grass | <i>Polygonum sp.</i> | <i>Rorippa nasturtium-aquaticum</i> | <i>Salix gooddingii</i> | <i>Solanum douglasii</i> | <i>Urtica dioica ssp. holose.</i> | <i>Xanthium strumarium</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap |
| 55 | | | | | | | | 1 | | | | | 1 | | | | | | | | 1 | | | |
| 56 | | | | | | | | 1 | | | | | 1 | | | | | | | | 1 | | | |
| 57 | | | | | | | | 1 | | | | | 1 | | | | | | | | 1 | | | |
| 58 | | | | | | | | 1 | | | | | 1 | | | | | | | | 1 | | | |
| 59 | | | | | | | | 1 | | | | | 1 | | | | | | | | 1 | | | |
| 60 | | | | | | | 1 | | | | | | 1 | | 1 | | | | | | | | 1 | |
| 61 | | | | | | | | 1 | | | | | 1 | | | | 1 | | | | | | | |
| 62 | | | | | | | | 1 | | | | | 1 | | | | 1 | | | | | | | |
| 63 | | | | | | | 1 | | | | | | 1 | | 1 | | | | | | | | 1 | |
| 64 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 | |
| 65 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 | |
| 66 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 | |
| 67 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 | |
| 68 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 | |
| 69 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 | |
| 70 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 | |
| 71 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 | |
| 72 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 | |
| 73 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 | |
| 74 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 | |
| 75 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 | |
| 76 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | 1 | |
| 77 | | | | | | | 1 | | | | | | 1 | | 1 | | | | | | | | 1 | |
| 78 | | | | | | | 1 | | | | | | 1 | | 1 | | | | | | | | 1 | |
| 79 | | | | | | | 1 | | | | | | 1 | | 1 | | | | | | | | 1 | |
| 80 | | | | | | 1 | | 1 | | | | | 1 | | 1 | | | | | | | | 1 | |
| 81 | | | | | | | | 1 | | | | | 1 | | 1 | | | | | | | 1 | | |
| 82 | | | | | | | | 1 | | | | | 1 | | 1 | | | | | | 1 | | | |
| 83 | | | | | 1 | | | 1 | | | | | 1 | | 1 | | | | | | 1 | | | |
| 84 | | | | | | | 1 | | | | | | 1 | | 1 | | | | | | | | 1 | |
| 85 | | | | | | | | 1 | | | | | 1 | | 1 | | | | | | | | 1 | |
| 86 | | | | | | | 1 | | | | | | 1 | | 1 | | | | | | | | 1 | |
| 87 | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| 88 | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| 89 | | | | | | | 1 | | | | | | 1 | | 1 | | | | | | | | 1 | |
| 90 | | | | | | | 1 | | | | | | 1 | | 1 | | | | | | | | 1 | |
| 91 | | | | | 1 | | | 1 | | | | | 1 | | 1 | | | | | | | | 1 | |
| 92 | | | | | | | | 1 | | | | | 1 | | 1 | | | | | | | | 1 | |
| 93 | | | | | | | | 1 | | 1 | | | 1 | | 1 | | | | | | | | 1 | |
| 94 | | | | 1 | | | | 1 | | | | | 1 | | 1 | | | | | | | | 1 | |
| 95 | | | | | 1 | | | | | | | | 1 | | 1 | | | | | | | | 1 | |
| 96 | | | | | 1 | | | | | | | | 1 | | 1 | | | | | | | | 1 | |
| 97 | | | | | 1 | | | | | 1 | | | | | 1 | | | | | | | | 1 | |
| 98 | | | | | 1 | | | | | 1 | | | | | 1 | | | | | | | | 1 | |
| 99 | | | | | | | | | | 1 | | | 1 | | 1 | | | | | | | | 1 | |
| 100 | | | | | | | | | | 1 | | | 1 | | 1 | | | | | | | | 1 | |
| 101 | | | | | 1 | | | | | 1 | | | | | 1 | | | | | | | | 1 | |
| 102 | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | |
| 103 | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | |
| 104 | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | |
| 105 | | | | | 1 | | | | | | | | | 1 | | | 1 | | | | | | 1 | |
| 106 | | | | | 1 | | | | | | | | | 1 | | | 1 | | | | | | 1 | |
| 107 | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | |
| 108 | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | |

| Reach: 12 | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|----------------------------|-----------------------------|--------------------------|----------------------------|----------------------|------------------|----------------------|-------------------------------|-------------------------|--------------------------|---|----------------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|--|--|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | <i>Centaurea meltensis</i> | <i>Cotula coronopifolia</i> | <i>Datura stramonium</i> | <i>Hirschfeldia incana</i> | <i>Melilotus</i> sp. | non-native grass | <i>Polygonum</i> sp. | <i>Rorippa nasturtium-aqu</i> | <i>Salix gooddingii</i> | <i>Solanum douglasii</i> | <i>Urtica dioica</i> ssp. <i>holose</i> | <i>Xanthium strumarium</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | | |
| 109 | | | 1 | | | | | | | | | | 1 | | | | 1 | | | | | | | | | |
| 110 | | | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Totals | | 1 | | | 9 | | 15 | | 85 | | 1 | | 70 | 14 | 21 | 5 | 6 | 5 | 25 | 0 | 25 | 9 | 29 | 11 | | |
| | | | | | | | | | | | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | | | | | | | | | | | Native | | | 82.72727 | | | | | | | | | | |
| | | | | | | | | | | | | | non-native | | | 31.81818 | | | | | | | | | | |
| | | | | | | | | | | | | | no vegetation | | | 4.545455 | | | | | | | | | | |

| Reach: 13 | | | | | | | | | | | | | | | |
|--------------------|----------------------|---------------|------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|
| Transect Number: 1 | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Centaurea melitensis | Melilotus sp. | non-native grass | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna.sp. | grouted riprap |
| 1 | | | 1 | | 1 | | | | | 1 | | | | | |
| 2 | | | 1 | | 1 | | | | | 1 | | | | | |
| 3 | | | 1 | | 1 | | | | | 1 | | | | | |
| 4 | | | 1 | | 1 | | | | | 1 | | | | | |
| 5 | | | | | | | 1 | 1 | | | | | | | |
| 6 | | | 1 | | 1 | | | | | 1 | | | | | |
| 7 | | | | | | | 1 | 1 | | | | | | | |
| 8 | | | | | | | 1 | 1 | | | | | | | |
| 9 | | | 1 | | 1 | | | | | 1 | | | | | |
| 10 | | | 1 | | 1 | | | | | 1 | | | | | |
| 11 | | | 1 | | 1 | | | | | 1 | | | | | |
| 12 | | | 1 | | 1 | | | | | 1 | | | | | |
| 13 | | | 1 | | 1 | | | | | 1 | | | | | |
| 14 | | | 1 | | 1 | | | | | 1 | | | | | |
| 15 | 1 | | 1 | | 1 | | | | | 1 | | | | | |
| 16 | 1 | | | | 1 | | | | | 1 | | | | | |
| 17 | 1 | | | | 1 | | | | | 1 | | | | | |
| 18 | 1 | | 1 | | 1 | | | | | 1 | | | | | |
| 19 | | | 1 | | 1 | | | | | 1 | | | | | |
| 20 | 1 | | | | 1 | | | | | 1 | | | | | |
| 21 | 1 | | | | 1 | | | | | 1 | | | | | |
| 22 | 1 | | | | 1 | | | | | 1 | | | | | |
| 23 | 1 | | 1 | | 1 | | | | | 1 | | | | | |
| 24 | 1 | | | | 1 | | | | | 1 | | | | | |
| 25 | 1 | | 1 | | 1 | | | | | 1 | | | | | |
| 26 | | 1 | | | 1 | | | | | 1 | | | | | |
| 27 | | 1 | | | 1 | | | | | 1 | | | | | |
| 28 | | 1 | | | 1 | | | | | 1 | | | | | |
| 29 | | | 1 | | 1 | | | | | 1 | | | | | |
| 30 | | | 1 | | 1 | | | | | 1 | | | | | |
| 31 | | | 1 | | 1 | | | | | 1 | | | | | |
| 32 | | | 1 | | 1 | | | | | 1 | | | | | |
| 33 | | | 1 | | 1 | | | | | 1 | | | | | |
| 34 | | | 1 | | 1 | | | | | 1 | | | | | |
| 35 | | 1 | | | 1 | | | 1 | | | | | | | |
| 36 | | | 1 | | 1 | | | | | 1 | | | | | |
| 37 | | | 1 | | 1 | | | | | 1 | | | | | |
| 38 | | | 1 | | 1 | | | | | 1 | | | | | |

| Reach: 13 | | | | | | | | | | | | | | | | | | |
|--------------------|----------------------|---------------|------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|--|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| Reading pe | Centaurea melitensis | Melilotus sp. | non-native grass | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna.sp. | grouted riprap | | | |
| 39 | | | 1 | | 1 | | | | | 1 | | | | | | | | |
| 40 | | | 1 | | 1 | | | | | 1 | | | | | | | | |
| Totals | 10 | 4 | 27 | 0 | 37 | 0 | 3 | 4 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | | | |
| | | | | Total Class Cover: | | | | | | | | | | | | | | |
| | | | | Native | | 0 | | | | | | | | | | | | |
| | | | | non-native | | 92.5 | | | | | | | | | | | | |
| | | | | no vegetation | | 7.5 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

| Reach: 13 | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|---------------------|------------------|-------------------|-----------|--------|-------------|------|----------|------|-----------------------|-------------|---------------------|-------|-----|----------------------|----------------|--|--|--|
| Transect Number: 3 | | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Carduus pycnocephalus | Hirschfeldia incana | non-native grass | Sambucus mexicana | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | | | |
| 1 | | | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 2 | | | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 3 | | | 1 | | | | 1 | | | | 1 | | | | | | | | | |
| 4 | | | | | | | | | 1 | | | 1 | | | | | | | | |
| 5 | | | | | | | | | 1 | | | 1 | | | | | | | | |
| 6 | | | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 7 | | | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 8 | | | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 9 | | | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 10 | | | | | | | | | 1 | 1 | | | | | | | | | | |
| 11 | | | | | | | | | 1 | 1 | | | | | | | | | | |
| 12 | | | | | | | | | 1 | | | 1 | | | | | | | | |
| 13 | 1 | | | | | | 1 | | | | | 1 | | | | | | | | |
| 14 | 1 | | | | | | 1 | | | | | | | | 1 | | | | | |
| 15 | | | | | 1 | 1 | 1 | | | | | 1 | | | | | | | | |
| 16 | | | 1 | | 1 | | | 1 | | | | 1 | | | | | | | | |
| 17 | | | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 18 | | | 1 | | | | | 1 | | | | | | 1 | | | | | | |
| 19 | | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 20 | | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 21 | | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 22 | | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 23 | | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 24 | | | 1 | | | | 1 | | | | | | | | 1 | | | | | |
| 25 | | | 1 | | | | 1 | | | | | | | | 1 | | | | | |
| 26 | | | 1 | | | | 1 | | | | | | | | 1 | | | | | |
| 27 | | | 1 | | | | 1 | | | | | | | | 1 | | | | | |
| 28 | | | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 29 | | | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 30 | | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 31 | | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 32 | | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 33 | | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 34 | | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 35 | | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 36 | | 1 | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 37 | | | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 38 | | | 1 | | | | 1 | | | | | 1 | | | | | | | | |

| Reach: 13 | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|---------------------|------------------|-------------------|-----------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|--|--|
| Transect Number: 3 | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Carduus pycnocephalus | Hirschfeldia incana | non-native grass | Sambucus mexicana | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | | |
| 39 | | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 40 | | | | | | | | | 1 | | | 1 | | | | | | | |
| Totals | 2 | 7 | 25 | 2 | 7 | 1 | 26 | 7 | 6 | 2 | 1 | 26 | 0 | 1 | 10 | 0 | 0 | | |
| | | | | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | | | | | | | 20 | | | | | | | | | | |
| | | | | | | | | | 82.5 | | | | | | | | | | |
| | | | | | | | | | 15 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

| Reach: 14 | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|------------------|------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|---|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | |
| | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading pe | Baccharis salicifolia | Salix gooddingii | Salix lasiolepis | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | | | |
| 1 | | | 1 | 1 | | | | 1 | | | | | | | | |
| 2 | | | 1 | 1 | | | | 1 | | | | | | | | |
| 3 | | | 1 | 1 | | | | | | 1 | | | | | | |
| 4 | | | 1 | 1 | | | | | | 1 | | | | | | |
| 5 | | | 1 | 1 | | | | | | 1 | | | | | | |
| 6 | | | 1 | 1 | | | | | 1 | | | | | | | |
| 7 | | | 1 | 1 | | | | 1 | | | | | | | | |
| 8 | | | 1 | 1 | | | | | | | | | | 1 | | |
| 9 | | | 1 | 1 | | | | | | | | | | 1 | | |
| 10 | | | 1 | 1 | | | | | | | | 1 | | | | |
| 11 | | | 1 | 1 | | | | | | | | | | 1 | | |
| 12 | | 1 | 1 | 1 | | | | | | | | | | 1 | | |
| 13 | | 1 | 1 | 1 | | | | | | | | | | 1 | | |
| 14 | | 1 | | 1 | | | | | | | | | | 1 | | |
| 15 | | 1 | | 1 | | | | | | | | 1 | | | | |
| 16 | | 1 | | 1 | | | | | | | | | | 1 | | |
| 17 | | 1 | | 1 | | | | | | | | | | 1 | | |
| 18 | | 1 | | 1 | | | | 1 | | | | | | | | |
| 19 | | 1 | | 1 | | | | 1 | | | | | | | | |
| 20 | | 1 | | 1 | | | | 1 | | | | | | | | |
| 21 | | 1 | | 1 | | | | 1 | | | | | | | | |
| 22 | | 1 | | 1 | | | | 1 | | | | | | | | |
| 23 | | 1 | | 1 | | | | 1 | | | | | | | | |
| 24 | | 1 | | 1 | | | | 1 | | | | | | | | |
| 25 | | 1 | | 1 | | | | 1 | | | | | | | | |
| 26 | | 1 | | 1 | | | | 1 | | | | | | | | |
| 27 | | 1 | | 1 | | | | 1 | | | | | | | | |
| 28 | | 1 | | 1 | | | | 1 | | | | | | | | |
| 29 | | 1 | | 1 | | | | 1 | | | | | | | | |
| 30 | | 1 | | 1 | | | | 1 | | | | | | | | |
| 31 | 1 | 1 | | 1 | | | | | | 1 | | | | | | |
| 32 | 1 | 1 | | 1 | | | | | | 1 | | | | | | |
| 33 | 1 | 1 | | 1 | | | | | | 1 | | | | | | |
| 34 | 1 | 1 | | 1 | | | | | | 1 | | | | | | |
| 35 | 1 | 1 | | 1 | | | | | | 1 | | | | | | |
| Totals | 5 | 24 | 13 | 35 | 0 | 0 | 0 | 16 | 1 | 8 | 0 | 2 | 8 | | | |
| | | | | Total Class Cover: | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|------------------|------------------|---------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|--|--|--|--|
| Reach: 14 | | | | | | | | | | | | | | | | | |
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Baccharis salicifolia | Salix gooddingii | Salix lasiolepis | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | | | | |
| | | | | Native | | 100 | | | | | | | | | | | |
| | | | | non-native | | 0 | | | | | | | | | | | |
| | | | | no vegetation | | 0 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| Reach: 14 | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|---------------------|----------------|--------------------|------------------|---------------|------------------------------|--------------------|-------------|------|----------|-----------|-----------------------|-------------|---------------------|-------|-----|----------|---|--|
| Transect Number: 2 | | Vegetation species | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading pe | Carduus pycnocephalus | Hirschfeldia incana | Melilotus alba | Mimulus cardinalis | non-native grass | Polygonum sp. | Rorippa nasturtium-aquaticum | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 40 | | | | | | | | | | | 1 | | | 1 | | | | | | |
| 41 | | | | | | | | | | | 1 | 1 | | | | | | | | |
| 42 | | | | | | | | | | | 1 | 1 | | | | | | | | |
| 43 | | | | | | | | | | | 1 | 1 | | | | | | | | |
| 44 | | | | | | | | | | | 1 | 1 | | | | | | | | |
| 45 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| Totals | 2 | 11 | 7 | 1 | | 0 | | 1 | 24 | 0 | 20 | 17 | 1 | 20 | 0 | 2 | 4 | 1 | | |
| | | | | | | | | Total Class Cover: | | | | | | | | | | | | |
| | | | | | | | | Native | | | | 2.222222 | | | | | | | | |
| | | | | | | | | non-native | | | | 53.333333 | | | | | | | | |
| | | | | | | | | no vegetation | | | | 44.444444 | | | | | | | | |

| Reach: 15 | | | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|----------------------|--------------------|------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------|--|---|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Cyperus sp. | Leptochloa uninervia | Ludwigia peploides | non-native grass | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | concrete | | |
| 1 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 2 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 3 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 4 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 5 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 6 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 7 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 8 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 9 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 10 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 11 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 12 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 13 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 14 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 15 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 16 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 17 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 18 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 19 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 20 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 21 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 22 | | | | | 1 | | | | | | | | | | | | | | 1 |
| 23 | | | | | 1 | | | | | | | | | | | | | | 1 |
| 24 | | | | 1 | 1 | | | | | | | | | | | | | | 1 |
| 25 | | | | 1 | | | | | | | | | | | | | | | 1 |
| 26 | | | | 1 | 1 | | | | | | | | | | | | | | 1 |
| 27 | | | | 1 | | | | | | | | | | | | | | | 1 |
| 28 | | | 1 | 1 | | | | | | | | | | | | | | | 1 |
| 29 | | | | 1 | | | | | | | | | | | | | | | 1 |
| 30 | 1 | | | 1 | | | | | | | | | | | | | | | 1 |
| 31 | 1 | | | 1 | | | | | | | | | | | | | | | 1 |
| 32 | 1 | | | 1 | | | | | | | | | | | | | | | 1 |
| 33 | 1 | | | | 1 | | | | | | | | | | | | | | 1 |
| 34 | | | | 1 | 1 | | | | | | | | | | | | | | 1 |
| 35 | | | | 1 | 1 | | | | | | | | | | | | | | 1 |
| 36 | 1 | | | 1 | | | | | | | | | | | | | | | 1 |
| 37 | 1 | | | 1 | 1 | | | | | | | | | | | | | | 1 |
| 38 | | | | 1 | | | | | | | | | | | | | | | 1 |

| Reach: 15 | | | | | | | | | | | | | | | | | |
|--------------------|-------------|----------------------|--------------------|------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------|
| Transect Number: 1 | | Vegetation species | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading pe | Cyperus sp. | Leptochloa uninervia | Ludwigia peploides | non-native grass | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | concrete |
| 39 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 40 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 41 | | | 1 | | 1 | 1 | | | | | | | | 1 | | | |
| 42 | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 43 | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 44 | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 45 | | | 1 | | 1 | 1 | | | | | | | | 1 | | | |
| 46 | | | 1 | | 1 | 1 | | | | | | | | 1 | | | |
| 47 | | | 1 | | 1 | 1 | | | | | | | | 1 | | | |
| 48 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 49 | | | 1 | | 1 | 1 | | | | | | | | 1 | | | |
| 50 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 51 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 52 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 53 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 54 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 55 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 56 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 57 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 58 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 59 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 60 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 61 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 62 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 63 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 64 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 65 | | | 1 | | | 1 | | | | | | | | 1 | | | |
| 66 | | | 1 | | | 1 | | | | | | | | | | | 1 |
| 67 | | | | | | | | | 1 | | | | | | | | 1 |
| 68 | | | | | | | | | 1 | | | | | | | | 1 |
| 69 | | | | | | | | | 1 | | | | | | | | 1 |
| 70 | | | | | | | | | 1 | | | | | | | | 1 |
| 71 | | | | | | | | | 1 | | | | | | | | 1 |
| 72 | | | | | | | | | 1 | | | | | | | | 1 |
| 73 | | | | | | | | | 1 | | | | | | | | 1 |
| 74 | | | | | | | | | 1 | | | | | | | | 1 |
| 75 | | | | | | | | | 1 | | | | | | | | 1 |
| 76 | | | | | | | | | 1 | | | | | | | | 1 |

| Reach: 15 | | | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|----------------------|--------------------|------------------|-----------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------|----|---|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Cyperus sp. | Leptochloa uninervia | Ludwigia peploides | non-native grass | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | concrete | | |
| 77 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 78 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 79 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 80 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 81 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 82 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 83 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 84 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 85 | | | | | | | | | 1 | | | | | | | | | | 1 |
| Totals | 6 | 1 | 39 | 8 | 8 | 32 | 3 | 10 | 40 | 0 | 1 | 0 | 0 | 44 | 0 | 0 | | 40 | |
| | | | | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | | | | Native | | | 49.41176 | | | | | | | | | | |
| | | | | | | non-native | | | 15.29412 | | | | | | | | | | |
| | | | | | | no vegetation | | | 47.05882 | | | | | | | | | | |

| Reach: 15 | | | | | | | | | | | | | | | | | | | |
|--------------------|----------------|--------------------|-----------|--------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----------------------|----------------------|----------|--|--|---|---|
| Transect Number: 2 | | Vegetation species | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| Reading pe | Melilotus alba | non-native grass | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | concrete | | | | |
| | 1 | | | | | | | 1 | | | | | | | | | | | 1 |
| 2 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 3 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 4 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 5 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 6 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 7 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 8 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 9 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 10 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 11 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 12 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 13 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 14 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 15 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 16 | | 1 | | | 1 | | | | | | | 1 | | | | | | | |
| 17 | | 1 | | | 1 | | | | | | | 1 | | | | | | | |
| 18 | | 1 | | | 1 | | | | | | | 1 | | | | | | | |
| 19 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 20 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 21 | | 1 | | | 1 | | | | | | | 1 | | | | | | | |
| 22 | | 1 | | | 1 | | | | 1 | | | | | | | | | | |
| 23 | | 1 | | | 1 | | | | | | | | 1 | | | | | | |
| 24 | | 1 | | | 1 | | | | | | | | 1 | | | | | | |
| 25 | | 1 | | | 1 | | | | | | | | 1 | | | | | | |
| 26 | | 1 | | | 1 | | | | | | | | 1 | | | | | | |
| 27 | 1 | 1 | | | 1 | | | | 1 | | | | | | | | | | |
| 28 | 1 | 1 | | | 1 | | | | | | | | 1 | | | | | | |
| 29 | | 1 | | | 1 | | | | | | | | 1 | | | | | | |
| 30 | | 1 | | | 1 | | | | | | | | 1 | | | | | | |
| 31 | | 1 | | | 1 | | | | | | | | 1 | | | | | | |
| 32 | | 1 | | | 1 | | | | | | | | 1 | | | | | | |
| 33 | | 1 | | | 1 | | | | | | | | 1 | | | | | | |
| 34 | | 1 | | | 1 | | | | | | | | 1 | | | | | | |
| 35 | | 1 | | | 1 | | | | | | | | 1 | | | | | | |
| 36 | | 1 | | | 1 | | | | | | | | 1 | | | | | | |
| 37 | | | 1 | | 1 | | | | | | | | 1 | | | | | | |
| 38 | | | 1 | | 1 | | | | | | | | 1 | | | | | | |

| Reach: 15 | | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------|--|---|--|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| | Melilotus alba | non-native grass | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | concrete | | | |
| 39 | | 1 | | | 1 | | | | | | | 1 | | | | | | |
| 40 | | | 1 | 1 | | | | | | | | 1 | | | | | | |
| 41 | | | 1 | 1 | | | | | | | | 1 | | | | | | |
| 42 | | | 1 | 1 | | | | | | | | 1 | | | | | | |
| 43 | | | 1 | 1 | | | | | | | | 1 | | | | | | |
| 44 | | | 1 | 1 | | | | | | | | 1 | | | | | | |
| 45 | | 1 | | | 1 | | | | | | | | | 1 | | | | |
| 46 | | 1 | | | 1 | | | | | | | | | 1 | | | | |
| 47 | | 1 | | | 1 | | | | | | | | | 1 | | | | |
| 48 | | 1 | | | 1 | | | | | | | | | 1 | | | | |
| 49 | | 1 | | | 1 | | | | | | | | | 1 | | | | |
| 50 | | 1 | | | 1 | | | | | | | 1 | | | | | | |
| 51 | | 1 | 1 | | | | 1 | | | | | | | 1 | | | | |
| 52 | | 1 | | | 1 | | | | | | | | | 1 | | | | |
| 53 | | | 1 | 1 | | | | | | | | | | 1 | | | | |
| 54 | | 1 | | | 1 | | | | | | | | | 1 | | | | |
| 55 | | 1 | 1 | | | | 1 | | | | | | | 1 | | | | |
| 56 | | 1 | 1 | | | | 1 | | | | | | | 1 | | | | |
| 57 | | 1 | | | | 1 | | | | | | | | 1 | | | | |
| 58 | | 1 | | | | 1 | | | | | | | | 1 | | | | |
| 59 | | | | | | | 1 | | | | | 1 | | | | | | |
| 60 | | 1 | | | 1 | | | | | | | 1 | | | | | | |
| 61 | | | | | | | 1 | | | | | 1 | | | | | | |
| 62 | | | | | | | 1 | | | | | 1 | | | | | | |
| 63 | | | | | | | 1 | | | | | 1 | | | | | | |
| 64 | | | | | | | 1 | | | | | 1 | | | | | | |
| 65 | | | | | | | 1 | | | | | 1 | | | | | | |
| 66 | | | | | | | 1 | | | | | | | | | | 1 | |
| 67 | | | | | | | 1 | | | | | | | | | | 1 | |
| 68 | | | | | | | 1 | | | | | | | | | | 1 | |
| 69 | | | | | | | 1 | | | | | | | | | | 1 | |
| 70 | | | | | | | 1 | | | | | | | | | | 1 | |
| 71 | | | | | | | 1 | | | | | | | | | | 1 | |
| 72 | | | | | | | 1 | | | | | | | | | | 1 | |
| 73 | | | | | | | 1 | | | | | | | | | | 1 | |
| 74 | | | | | | | 1 | | | | | | | | | | 1 | |
| 75 | | | | | | | 1 | | | | | | | | | | 1 | |
| 76 | | | | | | | 1 | | | | | | | | | | 1 | |

| Reach: 15 | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|-----------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------|--|---|
| Transect Number: 2 | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Melilotus alba | non-native grass | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | concrete | | |
| 77 | | | | | | | 1 | | | | | | | | | | 1 |
| 78 | | | | | | | 1 | | | | | | | | | | 1 |
| 79 | | | | | | | 1 | | | | | | | | | | 1 |
| 80 | | | | | | | 1 | | | | | | | | | | 1 |
| Totals | 2 | 34 | 11 | 9 | 30 | 3 | 38 | 0 | 2 | 0 | 0 | 20 | 28 | 0 | 30 | | |
| | | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | | Native | | | 24 | | | | | | | | | | |
| | | | | non-native | | | 66 | | | | | | | | | | |
| | | | | no vegetation | | | 47.5 | | | | | | | | | | |

| Reach: 17 | | | | | | | | | | | | | |
|--------------------|----------|--------------------|------------|----------|-----------|-----------------------|-------------|-------------|---------------------|----------|----------|----------|----------------|
| Transect Number: 1 | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | grouted riprap |
| 1 | | | | | 1 | | | 1 | | | | | |
| 2 | | | | | 1 | | | 1 | | | | | |
| 3 | | | | | 1 | | | 1 | | | | | |
| 4 | | | | | 1 | | | 1 | | | | | |
| 5 | | | | | 1 | | | 1 | | | | | |
| 6 | | | | | 1 | | | 1 | | | | | |
| 7 | | | | | 1 | | | 1 | | | | | |
| 8 | | | | | 1 | | | 1 | | | | | |
| 9 | | | | | 1 | | 1 | | | | | | |
| 10 | | | | | 1 | | 1 | | | | | | |
| 11 | | | | | 1 | | | 1 | | | | | |
| 12 | | | | | 1 | | | 1 | | | | | |
| 13 | | | | | 1 | | | 1 | | | | | |
| 14 | | | | | 1 | | | 1 | | | | | |
| 15 | | | | | 1 | | | | | | | | 1 |
| 16 | | | | | 1 | | | | | | | | 1 |
| 17 | | | | | 1 | | | 1 | | | | | |
| 18 | | | | | 1 | | | 1 | | | | | |
| 19 | | | | | 1 | | | 1 | | | | | |
| 20 | | | | | 1 | | | 1 | | | | | |
| 21 | | | | | 1 | | | 1 | | | | | |
| 22 | | | | | 1 | | | 1 | | | | | |
| 23 | | | | | 1 | | | 1 | | | | | |
| 24 | | | | | 1 | | | 1 | | | | | |
| 25 | | | | | 1 | 1 | | | | | | | |
| 26 | | | | | 1 | | | | | | 1 | | |
| 27 | | | | | 1 | | | 1 | | | | | |
| 28 | | | | | 1 | | | 1 | | | | | |
| 29 | | | | | 1 | | 1 | | | | | | |
| 30 | | | | | 1 | | | 1 | | | | | |
| Totals | 0 | 0 | 0 | 0 | 30 | 1 | 3 | 23 | 0 | 0 | 0 | 1 | 2 |
| | | Total Class Cover: | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | |
| | | non-native | | 0 | | | | | | | | | |
| | | no vegetation | | 100 | | | | | | | | | |

| | | | | | | | | | | | | | | | | |
|--------------------|--|-------------|------------|------|----------|--|-----------------------|-------------|-------------|---------------------|-------|-----|----------|----------------|--|--|
| Reach: 17 | | | | | | | | | | | | | | | | |
| Transect Number: 1 | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | | Ground Cover Material | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | grouted riprap | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| Reach: 18 | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|---|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | non-native grass | Ricinus communis | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | | | |
| 1 | 1 | | | 1 | | | | | 1 | | | | | | |
| 2 | 1 | | | 1 | | | | | 1 | | | | | | |
| 3 | 1 | | | 1 | | | | | 1 | | | | | | |
| 4 | | 1 | | 1 | | | | | 1 | | | | | | |
| 5 | | | | | | | 1 | | | | | | 1 | | |
| 6 | | | | | | | 1 | | | | | | 1 | | |
| 7 | | | | | | | 1 | | | | | | 1 | | |
| 8 | | | | | | | 1 | | | | | | 1 | | |
| 9 | 1 | | | 1 | | | | | 1 | | | | | | |
| 10 | 1 | | | 1 | | | | | 1 | | | | | | |
| 11 | 1 | | | 1 | | | | | 1 | | | | | | |
| 12 | 1 | | | 1 | | | | | 1 | | | | | | |
| 13 | 1 | | | 1 | | | | | 1 | | | | | | |
| 14 | 1 | | | 1 | | | | | 1 | | | | | | |
| 15 | 1 | | | 1 | | | | | 1 | | | | | | |
| 16 | 1 | | | 1 | | | | | 1 | | | | | | |
| 17 | 1 | | | 1 | | | | | 1 | | | | | | |
| 18 | 1 | | | 1 | | | | | 1 | | | | | | |
| 19 | | | | | | | 1 | | 1 | | | | | | |
| 20 | | | | | | | 1 | | 1 | | | | | | |
| Totals | 13 | 1 | 0 | 14 | 0 | 6 | 0 | 0 | 16 | 0 | 0 | 4 | | | |
| | | | Total Class Cover: | | | | | | | | | | | | |
| | | | Native | | 0 | | | | | | | | | | |
| | | | non-native | | 70 | | | | | | | | | | |
| | | | no vegetation | | 30 | | | | | | | | | | |

| Reach: 18 | | | | | | | | | | | | | | |
|--------------------|-------------------------|--------------------|------------|----------|-----------|-----------------------|-------------|-------------|---------------------|----------|-----------|--|--|--|
| Transect Number: 2 | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading pe | Gnaphalium californicum | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | | | |
| 1 | | | | | 1 | | | | | | 1 | | | |
| 2 | | | | | 1 | | | | | | 1 | | | |
| 3 | | | | | 1 | | | | | | 1 | | | |
| 4 | | | | | 1 | | | | | | 1 | | | |
| 5 | | | | | 1 | | | | | | 1 | | | |
| 6 | 1 | 1 | | | | | | 1 | | | | | | |
| 7 | | | | | 1 | | | | | | 1 | | | |
| 8 | | | | | 1 | | | 1 | | | | | | |
| 9 | | | | | 1 | | | 1 | | | | | | |
| 10 | | | | | 1 | | | 1 | | | | | | |
| 11 | | | | | 1 | | | 1 | | | | | | |
| 12 | | | | | 1 | | | | | | 1 | | | |
| 13 | | | | | 1 | | | | | | 1 | | | |
| 14 | | | | | 1 | | | 1 | | | | | | |
| 15 | | | | | 1 | | | | | | 1 | | | |
| 16 | | | | | 1 | | | | | | 1 | | | |
| 17 | | | | | 1 | | | 1 | | | | | | |
| 18 | | | | | 1 | | | 1 | | | | | | |
| 19 | | | | | 1 | | | 1 | | | | | | |
| 20 | | | | | 1 | | | 1 | | | | | | |
| Totals | 1 | 1 | 0 | 0 | 19 | 0 | 0 | 10 | 0 | 0 | 10 | | | |
| | | Total Class Cover: | | | | | | | | | | | | |
| | | | | | 5 | | | | | | | | | |
| | | | | | 0 | | | | | | | | | |
| | | | | | 95 | | | | | | | | | |

| Reach: 19 | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|------|--|--|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Malosma laurinia | Pinus canarensis | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | sand | | | | |
| 1 | | | | | | 1 | | | | | 1 | | | | |
| 2 | | | | | | 1 | | | 1 | | | | | | |
| 3 | | | | | | 1 | | | 1 | | | | | | |
| 4 | | | | | | 1 | | | 1 | | | | | | |
| 5 | | | | | | 1 | | 1 | | | | | | | |
| 6 | | | | | | 1 | | 1 | | | | | | | |
| 7 | | | | | | 1 | | 1 | | | | | | | |
| 8 | | | | | | 1 | | 1 | | | | | | | |
| 9 | | | | | | 1 | | 1 | | | | | | | |
| 10 | | | | | | 1 | | 1 | | | | | | | |
| 11 | | | | | | 1 | | | 1 | | | | | | |
| 12 | | | | | | 1 | | | 1 | | | | | | |
| 13 | | | | | | 1 | | 1 | | | | | | | |
| 14 | | | | | | 1 | | 1 | | | | | | | |
| 15 | | | | | | 1 | | | | | 1 | | | | |
| 16 | | | | | | 1 | | 1 | | | | | | | |
| 17 | | | | | | 1 | | 1 | | | | | | | |
| 18 | | | | | | 1 | | | | | 1 | | | | |
| 19 | | | | | | 1 | | 1 | | | | | | | |
| 20 | | | | | | 1 | | 1 | | | | | | | |
| 21 | | | | | | 1 | | | | | 1 | | | | |
| 22 | | | | | | 1 | | | | | 1 | | | | |
| 23 | | | | | | 1 | | | | | 1 | | | | |
| 24 | | | | | | 1 | | 1 | | | | | | | |
| 25 | | | | | | 1 | | | 1 | | | | | | |
| 26 | | | | | | 1 | | 1 | | | | | | | |
| 27 | | | | | | 1 | | | | | 1 | | | | |
| 28 | | | | | | 1 | | 1 | | | | | | | |
| 29 | | | | | | 1 | | | | | 1 | | | | |
| 30 | | | | | | 1 | | 1 | | | | | | | |
| 31 | | | | | | 1 | | | | | 1 | | | | |
| 32 | | | | | | 1 | | | | | 1 | | | | |
| 33 | | | | | | 1 | | | | | 1 | | | | |
| 34 | | | | | | 1 | | | | | 1 | | | | |
| 35 | | | | | | 1 | | | | | 1 | | | | |
| 36 | | | | | | 1 | | 1 | | | | | | | |
| 37 | | | | | | 1 | | 1 | | | | | | | |
| 38 | | | | | | 1 | | 1 | | | | | | | |

| Reach: 19 | | | | | | | | | | | | |
|--------------------|--------------------|------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|------|--|
| Transect Number: 1 | | | | | | | | | | | | |
| Reading pe | Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | |
| | Malosma laurinia | Pinus canarensis | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | sand | |
| 39 | | | | | | 1 | | 1 | | | | |
| 40 | | | | | | 1 | | | 1 | | | |
| 41 | | | | | | 1 | | 1 | | | | |
| 42 | | | | | | 1 | | 1 | | | | |
| 43 | | | | | | 1 | | | | 1 | | |
| 44 | | | | | | 1 | | | | 1 | | |
| 45 | | | | | | 1 | | 1 | | | | |
| 46 | | | | | | 1 | | | | 1 | | |
| 47 | | | | | | 1 | | 1 | | | | |
| 48 | | | | | | 1 | | | 1 | | | |
| 49 | | 1 | | 1 | | | | 1 | | | | |
| 50 | | 1 | | 1 | | | | 1 | | | | |
| 51 | | 1 | | 1 | | | | 1 | | | | |
| 52 | | 1 | | 1 | | | | 1 | | | | |
| 53 | 1 | 1 | | | 1 | | | | 1 | | | |
| 54 | 1 | 1 | | | 1 | | | | 1 | | | |
| 55 | 1 | 1 | | | 1 | | | | 1 | | | |
| 56 | 1 | 1 | | | 1 | | | | 1 | | | |
| 57 | 1 | 1 | | | 1 | | | | 1 | | | |
| 58 | 1 | 1 | | | 1 | | | | 1 | | | |
| 59 | 1 | 1 | | | 1 | | | | 1 | | | |
| 60 | 1 | 1 | | | 1 | | | | 1 | | | |
| 61 | 1 | 1 | | | 1 | | | | 1 | | | |
| 62 | 1 | 1 | | | 1 | | | | 1 | | | |
| 63 | 1 | 1 | | | 1 | | | | 1 | | | |
| 64 | 1 | 1 | | | 1 | | | | 1 | | | |
| 65 | 1 | 1 | | | 1 | | | | 1 | | | |
| 66 | 1 | 1 | | | 1 | | | | 1 | | | |
| 67 | | 1 | | 1 | | | | | 1 | | | |
| 68 | | 1 | | 1 | | | | | 1 | | | |
| 69 | | 1 | | 1 | | | | | 1 | | | |
| 70 | | 1 | | 1 | | | | | 1 | | | |
| 71 | | 1 | | 1 | | | | | 1 | | | |
| 72 | | 1 | | 1 | | | | | 1 | | | |
| 73 | | 1 | | 1 | | | | | 1 | | | |
| 74 | | 1 | | 1 | | | | | 1 | | | |
| 75 | | 1 | | 1 | | | | | 1 | | | |
| Totals | 14 | 27 | 0 | 13 | 14 | 48 | 0 | 28 | 31 | 0 | 16 | |

| | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|--------------------|------------|----------|----------|-----------------------|-------------|-------------|---------------------|------|--|--|
| Reach: 19 | | | | | | | | | | | | | |
| Transect Number: 1 | | | | | | | | | | | | | |
| | Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | |
| Reading pe | Malosma laurina | Pinus canarensis | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | sand | | |
| | | | Total Class Cover: | | | | | | | | | | |
| | | | Native | | 18.66667 | | | | | | | | |
| | | | non-native | | 36 | | | | | | | | |
| | | | no vegetation | | 64 | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

| Reach: | | | | | | | | | | | | | | | | |
|------------------|------------------------|-------------------------|------------------|------------------|------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|----------|
| Transect Number: | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Eriogonum fasciculatum | Lepidospartum squamatum | Nicotiana glauca | non-native grass | Spartium junceum | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | concrete |
| 1 | | | | | | | | | 1 | | 1 | | | | | |
| 2 | | | | | | | | | 1 | | | | | | 1 | |
| 3 | | | | | | | | | 1 | | 1 | | | | | |
| 4 | | | | | | | | | 1 | | 1 | | | | | |
| 5 | | | | | | | | | 1 | | 1 | | | | | |
| 6 | | | | | | | | | 1 | | | | | | 1 | |
| 7 | | | | | | | | | 1 | | 1 | | | | | |
| 8 | | | | | | | | | 1 | | | | | | 1 | |
| 9 | | | | | | | | | 1 | | | | | | 1 | |
| 10 | | | | | | | | | 1 | | | | | | 1 | |
| 11 | | | | | | | | | 1 | | 1 | | | | | |
| 12 | | | | | | | | | 1 | | | | | | 1 | |
| 13 | | | 1 | | | | | | | | 1 | | | | | |
| 14 | | | | | | | | | 1 | | 1 | | | | | |
| 15 | | | | | | | | | 1 | | 1 | | | | | |
| 16 | | | | | | | | | 1 | | | | | | 1 | |
| 17 | | | | | | | | | 1 | | | | | | 1 | |
| 18 | | | | | | | | | 1 | | | | | | 1 | |
| 19 | | | | | | | | | 1 | | | | | | 1 | |
| 20 | | | | | | | | | 1 | | | | | | 1 | |
| 21 | | | | | | | | | 1 | | 1 | | | | | |
| 22 | | | | | | | | | 1 | | | | | | 1 | |
| 23 | | | | | | | | | 1 | | 1 | | | | | |
| 24 | | | | | | | | | 1 | | 1 | | | | | |
| 25 | | | | | | | | | 1 | | | | | | 1 | |
| 26 | | | | | | | | | 1 | | 1 | | | | | |
| 27 | | | | | | | | | 1 | | 1 | | | | | |
| 28 | | | | | | | | | 1 | | 1 | | | | | |
| 29 | | | | | | | | | 1 | | | | | | 1 | |
| 30 | | | | | | | | | 1 | | | | | | 1 | |
| 31 | | | | | | | | | 1 | | | | | | 1 | |
| 32 | | | | | | | | | 1 | | | | | | 1 | |
| 33 | | | | | | | | | 1 | | 1 | | | | | |
| 34 | | | | | | | | | 1 | | 1 | | | | | |
| 35 | | | | | | | | | 1 | | 1 | | | | | |
| 36 | | | | | | | | | 1 | | 1 | | | | | |
| 37 | | | | | | | | | 1 | | 1 | | | | | |

| Reach: | | | | | | | | | | | | | | | | |
|------------------|------------------------|-------------------------|------------------|------------------|------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|----------|
| Transect Number: | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Eriogonum fasciculatum | Lepidospartum squamatum | Nicotiana glauca | non-native grass | Spartium junceum | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | concrete |
| 38 | | | | | | | | | 1 | | 1 | | | | | |
| 39 | | | | | | | | | 1 | | 1 | | | | | |
| 40 | | | | | | | | | 1 | | | | | | 1 | |
| 41 | | | | | | | | | 1 | | | | | | 1 | |
| 42 | | | | | | | | | 1 | | | | | | 1 | |
| 43 | | | | | | | | | 1 | | 1 | | | | | |
| 44 | | | | | | | | | 1 | | 1 | | | | | |
| 45 | | | | | | | | | 1 | | 1 | | | | | |
| 46 | | | | | | | | | 1 | | 1 | | | | | |
| 47 | | | | | | | | | 1 | | 1 | | | | | |
| 48 | | | | | | | | | 1 | | | | | | 1 | |
| 49 | | | | | | | | | 1 | | | | | | 1 | |
| 50 | | | | | | | | | 1 | | 1 | | | | | |
| 51 | | | | | | | | | 1 | | 1 | | | | | |
| 52 | | | | | | | | | 1 | | | | | | 1 | |
| 53 | | | | | | | | | 1 | | | | | | 1 | |
| 54 | | | | | | | | | 1 | | | | | | 1 | |
| 55 | | | | | | | | | 1 | | | | | | 1 | |
| 56 | | | | | | | | | 1 | | | | | | 1 | |
| 57 | | | | | | | | | 1 | | 1 | | | | | |
| 58 | | | | | | | | | 1 | | | | | | 1 | |
| 59 | | | | | | | | | 1 | | | | | | 1 | |
| 60 | | | | | | | | | 1 | | | | | | | 1 |
| 61 | | | | | | | | | 1 | | 1 | | | | | |
| 62 | | | | | | | | | 1 | | | | | | 1 | |
| 63 | | | | | | | | | 1 | | 1 | | | | | |
| 64 | | | | | | | | | 1 | | | | | | 1 | |
| 65 | | | | | | | | | 1 | | 1 | | | | | |
| 66 | | | | | | | | | 1 | | | | | | 1 | |
| 67 | | | | | | | | | 1 | | 1 | | | | | |
| 68 | | | | | | | | | 1 | | | | | | 1 | |
| 69 | | | | | | | | | 1 | | | | | | 1 | |
| 70 | | | | | | | | | 1 | | | | | | 1 | |
| 71 | | | | | | | | | 1 | | | | | | 1 | |
| 72 | | | | | | | | | 1 | | | | | | 1 | |
| 73 | | | | | | | | | 1 | | | | | | 1 | |
| 74 | | | | | | | | | 1 | | 1 | | | | | |

| Reach: | | | | | | | | | | | | | | | | |
|------------------|------------------------|-------------------------|------------------|------------------|------------------|--------------------|------------|----------|----------|-----------------------|-------------|-------------|---------------------|-------|------|----------|
| Transect Number: | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Eriogonum fasciculatum | Lepidospartum squamatum | Nicotiana glauca | non-native grass | Spartium junceum | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | concrete |
| 75 | | | | | | | | | 1 | | | | | | 1 | |
| 76 | | | | | | | | | 1 | | 1 | | | | | |
| 77 | | | | | | | | | 1 | | | | | | 1 | |
| 78 | | | | | | | | | 1 | | | | | | 1 | |
| 79 | | | | | | | | | 1 | | | | | | 1 | |
| 80 | | | | | | | | | 1 | | | | | | 1 | |
| 81 | | | | | | | | | 1 | | | | | | 1 | |
| 82 | | | | | | | | | 1 | | | | | | 1 | |
| 83 | | | | | | | | | 1 | | 1 | | | | | |
| 84 | | | | | | | | | 1 | | 1 | | | | | |
| 85 | | | | | | | | | 1 | | 1 | | | | | |
| 86 | | | | | | | | | 1 | | | 1 | | | | |
| 87 | 1 | | | | | 1 | | | | | | 1 | | | | |
| 88 | | 1 | | | | 1 | | | | | | 1 | | | | |
| 89 | | | | | 1 | | 1 | | | | | 1 | | | | |
| 90 | | 1 | | | 1 | | | | 1 | | | 1 | | | | |
| 91 | | 1 | | | 1 | | | | 1 | | | 1 | | | | |
| 92 | | 1 | | | 1 | | | | 1 | | | 1 | | | | |
| 93 | | 1 | | | 1 | | | | 1 | | | 1 | | | | |
| Totals | 1 | 5 | 1 | 0 | 5 | 2 | 1 | 0 | 89 | 0 | 39 | 8 | 0 | 0 | 45 | 1 |
| | | | | | | Total Class Cover: | | | | | | | | | | |
| | | | | | | Native | | 2.150538 | | | | | | | | |
| | | | | | | non-native | | 1.075269 | | | | | | | | |
| | | | | | | no vegetation | | 95.69892 | | | | | | | | |

| Reach: | | | | | | | | | | | | | | | | |
|------------------|-----------------------|-----------------------|------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|--|--|--|
| Transect Number: | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Artemisia douglasiana | Baccharis salicifolia | Ricinus communis | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | | | |
| 1 | | | | | | | 1 | | | 1 | | | | | | |
| 2 | | | | | | | 1 | | 1 | | | | | | | |
| 3 | 1 | | | 1 | | | | | | 1 | | | | | | |
| 4 | | | | | | | 1 | | | 1 | | | | | | |
| 5 | | | | | | | 1 | | | 1 | | | | | | |
| 6 | | | | | | | 1 | | 1 | | | | | | | |
| 7 | | | | | | | 1 | | | 1 | | | | | | |
| 8 | | | 1 | 1 | | | | | | 1 | | | | | | |
| 9 | 1 | | | 1 | | | | | 1 | | | | | | | |
| 10 | 1 | | | 1 | | | | | 1 | | | | | | | |
| 11 | | | | | | | 1 | | | | | | 1 | | | |
| 12 | | | | | | | 1 | | | 1 | | | | | | |
| 13 | | | | | | | 1 | | | 1 | | | | | | |
| 14 | | | | | | | 1 | | | 1 | | | | | | |
| 15 | | | | | | | 1 | | | | | | 1 | | | |
| 16 | | | | | | | 1 | | | | | | 1 | | | |
| 17 | | | | | | | 1 | | | | | | 1 | | | |
| 18 | | | | | | | 1 | | | 1 | | | | | | |
| 19 | | | | | | | 1 | | 1 | | | | | | | |
| 20 | | | | | | | 1 | | 1 | | | | | | | |
| 21 | | | | | | | 1 | | 1 | | | | | | | |
| 22 | | | | | | | 1 | | | 1 | | | | | | |
| 23 | | | | | | | 1 | | 1 | | | | | | | |
| 24 | | | | | | | 1 | | | | | | 1 | | | |
| 25 | | | | | | | 1 | | 1 | | | | | | | |
| 26 | | | | | | | 1 | | | 1 | | | | | | |
| 27 | | | | | | | 1 | | 1 | | | | | | | |
| 28 | | | | | | | 1 | | 1 | | | | | | | |
| 29 | | | | | | | 1 | | 1 | | | | | | | |
| 30 | | | | | | | 1 | | 1 | | | | | | | |
| 31 | | | | | | | 1 | | | | | | 1 | | | |
| 32 | | | | | | | 1 | | | | | | 1 | | | |
| 33 | | | | | | | 1 | | | 1 | | | | | | |
| 34 | | | | | | | 1 | | | | | | 1 | | | |
| 35 | | | | | | | 1 | | 1 | | | | | | | |
| 36 | | | | | | | 1 | | | 1 | | | | | | |
| 37 | | | | | | | 1 | | | | | | 1 | | | |
| 38 | | | | | | | 1 | | | 1 | | | | | | |

| Reach: | | | | | | | | | | | | | | | |
|------------------|-----------------------|-----------------------|------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|--|--|
| Transect Number: | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Artemisia douglasiana | Baccharis salicifolia | Ricinus communis | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | | |
| 39 | | | | | | | 1 | | | 1 | | | | | |
| 40 | | | | | | | 1 | | | 1 | | | | | |
| 41 | | | | | | | 1 | | | 1 | | | | | |
| 42 | | | | | | | 1 | | | 1 | | | | | |
| 43 | | | | | | | 1 | | | | | | 1 | | |
| 44 | | | | | | | 1 | | | 1 | | | | | |
| 45 | | | | | | | 1 | | | | | | 1 | | |
| 46 | | | | | | | 1 | | | | | | 1 | | |
| 47 | | | | | | | 1 | | | | | | 1 | | |
| 48 | | | | | | | 1 | | | | | | 1 | | |
| 49 | | | | | | | 1 | | | | | | 1 | | |
| 50 | | | | | | | 1 | | | 1 | | | | | |
| 51 | | | | | | | 1 | | | 1 | | | | | |
| 52 | | | | | | | 1 | | | | | | 1 | | |
| 53 | | | | | | | 1 | | | 1 | | | | | |
| 54 | | | 1 | | 1 | | | | | 1 | | | | | |
| 55 | | | | | | | 1 | | | | | | 1 | | |
| Totals | 3 | 1 | 1 | 4 | 1 | 0 | 50 | 0 | 14 | 24 | 0 | 0 | 17 | | |
| | | | | Total Class Cover: | | | | | | | | | | | |
| | | | | Native | | | 7.272727 | | | | | | | | |
| | | | | non-native | | | 1.818182 | | | | | | | | |
| | | | | no vegetation | | | 90.90909 | | | | | | | | |

| Reach: 22 | | | | | | | | | | | | | |
|--------------------|-------------------------|---------------------|-------------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|
| Transect Number: 2 | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | |
| | <i>Gilia angelensis</i> | <i>Hedera helix</i> | <i>Nicotiana glauca</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand |
| 1 | | 1 | | | 1 | | | | | | | | 1 |
| 2 | | 1 | | | 1 | | | | | | | | 1 |
| 3 | | | | | | | 1 | | | | | | 1 |
| 4 | | | | | | | 1 | | | | | | 1 |
| 5 | | | | | | | 1 | | 1 | | | | |
| 6 | | | | | | | 1 | | 1 | | | | |
| 7 | | | | | | | 1 | | | | | | 1 |
| 8 | | | | | | | 1 | | 1 | | | | |
| 9 | | | | | | | 1 | | | | | | 1 |
| 10 | | | | | | | 1 | | 1 | | | | |
| 11 | | | | | | | 1 | | 1 | | | | |
| 12 | | | | | | | 1 | | | | | | 1 |
| 13 | | | | | | | 1 | | | | | | 1 |
| 14 | | | | | | | 1 | | | | | | 1 |
| 15 | | | | | | | 1 | | | | | | 1 |
| 16 | | | | | | | 1 | | | | | | 1 |
| 17 | | | | | | | 1 | | 1 | | | | |
| 18 | | | 1 | | 1 | | | | | | | | 1 |
| 19 | | | | | | | 1 | | | | | | 1 |
| 20 | | | | | | | 1 | | | | | | 1 |
| 21 | | | | | | | 1 | | | | | | 1 |
| 22 | | | | | | | 1 | | | | | | 1 |
| 23 | | | | | | | 1 | | 1 | | | | |
| 24 | 1 | | | 1 | | | | | | | | | 1 |
| 25 | | | | | | | 1 | | | 1 | | | |
| 26 | | | | | | | 1 | | 1 | | | | |
| 27 | | | | | | | 1 | | 1 | | | | |
| 28 | | | | | | | 1 | | 1 | | | | |
| 29 | | | | | | | 1 | | | 1 | | | |
| 30 | | | | | | | 1 | | | 1 | | | |
| 31 | | | | | | | 1 | | 1 | | | | |
| 32 | | | | | | | 1 | | | 1 | | | |
| 33 | | | | | | | 1 | | | 1 | | | |
| 34 | | | | | | | 1 | | | 1 | | | |
| 35 | | | | | | | 1 | | | 1 | | | |
| 36 | | | | | | | 1 | | 1 | | | | |
| 37 | | | | | | | 1 | | 1 | | | | |
| 38 | | | | | | | 1 | | | 1 | | | |

| Reach: 22 | | | | | | | | | | | | | | | |
|--------------------|-------------------------|---------------------|-------------------------|--------------------|------------|------|-----------|-----------------------|-------------|-------------|---------------------|-------|------|--|--|
| Transect Number: 2 | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | <i>Gilia angelensis</i> | <i>Hedera helix</i> | <i>Nicotiana glauca</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | | |
| 39 | | | | | | | 1 | | | 1 | | | | | |
| 40 | | | | | | | 1 | | | 1 | | | | | |
| 41 | | | | | | | 1 | | | 1 | | | | | |
| 42 | | | | | | | 1 | | | 1 | | | | | |
| 43 | | | | | | | 1 | | 1 | | | | | | |
| 44 | | | | | | | 1 | | | 1 | | | | | |
| 45 | | | | | | | 1 | | | 1 | | | | | |
| Totals | 1 | 2 | 1 | 1 | 3 | 0 | 41 | 0 | 14 | 14 | 0 | 0 | 17 | | |
| | | | | Total Class Cover: | | | | | | | | | | | |
| | | | | Native | | | 2.222222 | | | | | | | | |
| | | | | non-native | | | 6.666667 | | | | | | | | |
| | | | | no vegetation | | | 91.111111 | | | | | | | | |

| Reach: 22 | | | | | | | | | | | | | | | |
|--------------------|-----------------------|-------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|--|--|--|
| Transect Number: 3 | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Artemisia douglasiana | Platanus racemosa | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | | | |
| 1 | | | | | | 1 | | | | | | 1 | | | |
| 2 | | | | | | 1 | | | 1 | | | | | | |
| 3 | | | | | | 1 | | | | | | 1 | | | |
| 4 | | | | | | 1 | | 1 | | | | | | | |
| 5 | | | | | | 1 | | | | | | 1 | | | |
| 6 | | | | | | 1 | | | | | | 1 | | | |
| 7 | | | | | | 1 | | 1 | | | | | | | |
| 8 | | | | | | 1 | | | 1 | | | | | | |
| 9 | | | | | | 1 | | | | | | 1 | | | |
| 10 | | | | | | 1 | | | | | | 1 | | | |
| 11 | | | | | | 1 | | | 1 | | | | | | |
| 12 | | | | | | 1 | | | | | | 1 | | | |
| 13 | | | | | | 1 | | | | | | 1 | | | |
| 14 | | | | | | 1 | | | 1 | | | | | | |
| 15 | | | | | | 1 | | | | | | 1 | | | |
| 16 | | | | | | 1 | | 1 | | | | | | | |
| 17 | | | | | | 1 | | | 1 | | | | | | |
| 18 | 1 | | 1 | | | | | 1 | | | | | | | |
| 19 | 1 | | 1 | | | | | | | | | 1 | | | |
| 20 | 1 | | 1 | | | | | | 1 | | | | | | |
| 21 | 1 | | 1 | | | | | | 1 | | | | | | |
| 22 | 1 | | 1 | | | | | | | | | 1 | | | |
| 23 | 1 | | 1 | | | | | 1 | | | | | | | |
| 24 | 1 | | 1 | | | | | | | | | 1 | | | |
| 25 | 1 | | 1 | | | | | 1 | | | | | | | |
| 26 | 1 | | 1 | | | | | | 1 | | | | | | |
| 27 | 1 | | 1 | | | | | | | | | 1 | | | |
| 28 | 1 | | 1 | | | | | | | | | 1 | | | |
| 29 | 1 | | 1 | | | | | | | | | 1 | | | |
| 30 | 1 | | 1 | | | | | | | | | 1 | | | |
| 31 | 1 | | 1 | | | | | | | | | 1 | | | |
| 32 | 1 | | 1 | | | | | 1 | | | | | | | |
| 33 | 1 | | 1 | | | | | | 1 | | | | | | |
| 34 | 1 | | 1 | | | | | | 1 | | | | | | |
| 35 | 1 | | 1 | | | | | | | | | 1 | | | |
| 36 | 1 | 1 | 1 | | | | | | | | | 1 | | | |
| 37 | 1 | | 1 | | | | | | | | | 1 | | | |
| 38 | 1 | 1 | 1 | | | | | | | | | 1 | | | |

| | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|-------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|---|--|--|--|--|--|
| Reach: 22 | | | | | | | | | | | | | | | | | | |
| Transect Number: 3 | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | |
| Reading pe | Artemisia douglasiana | Platanus racemosa | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | | | | | | |
| 39 | 1 | 1 | 1 | | | | | | | | | | 1 | | | | | |
| 40 | 1 | 1 | 1 | | | | | | 1 | | | | | | | | | |
| 41 | 1 | 1 | 1 | | | | | | 1 | | | | | | | | | |
| 42 | 1 | 1 | 1 | | | | | | 1 | | | | | | | | | |
| 43 | 1 | 1 | 1 | | | | | | 1 | | | | | | | | | |
| 44 | 1 | 1 | 1 | | | | | | 1 | | | | | | | | | |
| 45 | 1 | 1 | 1 | | | | | | 1 | | | | | | | | | |
| Totals | 28 | 9 | 28 | 0 | 0 | 17 | 0 | 7 | 16 | 0 | 0 | 22 | | | | | | |
| | | | Total Class Cover: | | | | | | | | | | | | | | | |
| | | | Native | | | 62.22222 | | | | | | | | | | | | |
| | | | non-native | | | 0 | | | | | | | | | | | | |
| | | | no vegetation | | | 37.77778 | | | | | | | | | | | | |

Total Class Cover Percent Average for 24-1A,B, and C:

| | |
|---------------|----------|
| Native | 20.33 |
| non-native | 43.58333 |
| no vegetation | 56.41667 |

| Reach: 24 | | | | | | | | | | | | | | | | | | | | |
|---------------------|---------------------------|--------------------|------------------------|----------------------------|------------------|-------------------------|--------------------------|------------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|-----|-------|----------------|
| Transect Number: 1A | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | <i>Conyza bonariensis</i> | <i>Cyperus sp.</i> | <i>Mellilotus alba</i> | <i>Plantago lanceolata</i> | non-native grass | <i>Ricinus communis</i> | <i>Sonchus oleraceus</i> | <i>Typha sp.</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | trash | grouted riprap |
| 1 | | 1 | | | | 1 | | | | | 1 | | | | | | 1 | | | |
| 2 | | 1 | | | | 1 | | | | | 1 | | | | | | 1 | | | |
| 3 | | 1 | | | | 1 | | | | | 1 | | | | | | 1 | | | |
| 4 | | 1 | | | | 1 | | | | | 1 | | | | | | 1 | | | |
| 5 | | 1 | | | | 1 | | | | | 1 | | | | | | 1 | | | |
| 6 | | | | | | 1 | | | | | | | | | | | | 1 | | |
| 7 | | | | | | 1 | | | | | | | | | | | | 1 | | |
| 8 | | | 1 | | | | | | | | 1 | | | | 1 | | | | | |
| 9 | | | 1 | | | | | | | | 1 | | | | 1 | | | | | |
| 10 | | | 1 | | | | | | | | 1 | | | | 1 | | | | | |
| 11 | | | 1 | | | | | | | | 1 | | | | 1 | | | | | |
| 12 | | | 1 | | | | | | | | 1 | | | | 1 | | | | | |
| 13 | | | 1 | | | | | | | | 1 | | | | 1 | | | | | |
| 14 | | | 1 | | | | | | | | 1 | | | | 1 | | | | | |
| 15 | | | 1 | | | | | | | | 1 | | | | 1 | | | | | |
| 16 | | | 1 | | | | | | | | 1 | | | | 1 | | | | | 1 |
| 17 | | | 1 | 1 | | | | | | | 1 | | | | 1 | | | | | |
| 18 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 19 | | | 1 | | | | | | | | 1 | | | | 1 | | | | | |
| 20 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 21 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 22 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 23 | 1 | | | | | | | | | | 1 | | 1 | | | | | | 1 | |
| 24 | 1 | | | | | | | | | | 1 | | | | 1 | | | | | |
| 25 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 26 | | | | | | | | | | | 1 | | | | 1 | | | | | 1 |
| 27 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 28 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 29 | | | | | | | | | | | 1 | | | | | | | | | 1 |
| 30 | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 31 | | | 1 | | | | | | | | 1 | | | | | | | | | 1 |
| 32 | | | 1 | | | | | | | | 1 | | | | 1 | | | | | |
| 33 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 34 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 35 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 36 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 37 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 38 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 39 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 40 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 41 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 42 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 43 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 44 | | | | | | | | | | | | 1 | | | | | | | | 1 |

| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|---------------------|---------------------------|---------------------------|----------------------------|----------------------|--------------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------|----------------|--|--|
| Transect Number: 1B | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | <i>Conyza bonariensis</i> | <i>Ludwigia peploides</i> | <i>Plantago lanceolata</i> | <i>Polygonum sp.</i> | <i>Sonchus oleraceus</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | grouted riprap | | |
| 1 | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 2 | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 3 | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 4 | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 5 | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 6 | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 7 | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 8 | | 1 | | | | | 1 | | | | 1 | | | | | | | | |
| 9 | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 10 | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 11 | | 1 | | | | | 1 | | | | | | | 1 | | | | | |
| 12 | | 1 | | | | | 1 | | | | | | | | 1 | | | | |
| 13 | 1 | 1 | | | | | 1 | | | | 1 | | | | | | | | |
| 14 | | 1 | 1 | | | | 1 | | | | | | | | | 1 | | | |
| 15 | | 1 | | | | | 1 | | | | | | | | | 1 | | | |
| 16 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 17 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 18 | 1 | | | | | | 1 | | | | | | | | | | 1 | | |
| 19 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 20 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 21 | | | | | 1 | | 1 | | | | | | | | | | 1 | | |
| 22 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 23 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 24 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 25 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 26 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 27 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 28 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 29 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 30 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 31 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 32 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 33 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 34 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 35 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 36 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 37 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 38 | | | | | | | | | 1 | | | | | | | | 1 | | |

| Reach: 24 | | | | | | | | | | | | | | | | | | | | |
|---------------------|---------------------------|---------------------------|----------------------------|----------------------|--------------------------|--------------------|-------------|------|----------|------|-----------------------|-------------|---------------------|-------|-----|------|----------------|--|--|--|
| Transect Number: 1B | | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | <i>Conyza bonariensis</i> | <i>Ludwigia peploides</i> | <i>Plantago lanceolata</i> | <i>Polygonum sp.</i> | <i>Sonchus oleraceus</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | grouted riprap | | | |
| 39 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 40 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 41 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 42 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 43 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 44 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 45 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 46 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 47 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 48 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 49 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 50 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 51 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 52 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 53 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 54 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 55 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 56 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 57 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 58 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 59 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| 60 | | | | | | | | | 1 | | | | | | | | 1 | | | |
| Totals | 2 | 15 | 1 | 0 | 1 | 0 | 17 | 0 | 43 | 0 | 2 | 0 | 0 | 10 | 1 | 2 | 45 | | | |
| | | | | | | Total Class Cover: | | | | | | | | | | | | | | |
| | | | | | | Native | | | 0 | | | | | | | | | | | |
| | | | | | | non-native | | | 28.33333 | | | | | | | | | | | |
| | | | | | | no vegetation | | | 71.66667 | | | | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | | |
|---------------------|--------------------|-------------|-----------|-------------|------------|------|----------|-----------------------|--|--|--|--|--|--|--|--|--|--|
| Transect Number: 1C | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| Reading pe | Ludwigia peploides | Scirpus sp. | Typha sp. | Native | Non-native | Both | No Plant | water | | | | | | | | | | |
| 1 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 2 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 3 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 4 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 5 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 6 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 7 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 8 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 9 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 10 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 11 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 12 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 13 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 14 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 15 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 16 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 17 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 18 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 19 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 20 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 21 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 22 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 23 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 24 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 25 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 26 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 27 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 28 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 29 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 30 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 31 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 32 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 33 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 34 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 35 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 36 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 37 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |
| 38 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | |
|---------------------|--------------------|-------------|-----------|-------------|------------|------|----------|-----------------------|--|--|--|--|--|--|--|--|--|
| Transect Number: 1C | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Ludwigia peploides | Scirpus sp. | Typha sp. | Native | Non-native | Both | No Plant | water | | | | | | | | | |
| 39 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | |
| 40 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | |
| 41 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | |
| 42 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | |
| 43 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | |
| 44 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | |
| 45 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | |
| 46 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | |
| 47 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | |
| 48 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | |
| 49 | 1 | 1 | 1 | | | | 1 | 1 | | | | | | | | | |
| 50 | | | | | | | 1 | 1 | | | | | | | | | |
| 51 | | | | | | | 1 | 1 | | | | | | | | | |
| 52 | | | | | | | 1 | 1 | | | | | | | | | |
| 53 | | | | | | | 1 | 1 | | | | | | | | | |
| 54 | | | | | | | 1 | 1 | | | | | | | | | |
| 55 | | | | | | | 1 | 1 | | | | | | | | | |
| 56 | | | | | | | 1 | 1 | | | | | | | | | |
| 57 | | | | | | | 1 | 1 | | | | | | | | | |
| 58 | | | | | | | 1 | 1 | | | | | | | | | |
| 59 | | | | | | | 1 | 1 | | | | | | | | | |
| 60 | | | | | | | 1 | 1 | | | | | | | | | |
| 61 | | | | | | | 1 | 1 | | | | | | | | | |
| 62 | | | | | | | 1 | 1 | | | | | | | | | |
| 63 | | | | | | | 1 | 1 | | | | | | | | | |
| 64 | | | | | | | 1 | 1 | | | | | | | | | |
| 65 | | | | | | | 1 | 1 | | | | | | | | | |
| 66 | | | | | | | 1 | 1 | | | | | | | | | |
| 67 | | | | | | | 1 | 1 | | | | | | | | | |
| 68 | | | | | | | 1 | 1 | | | | | | | | | |
| 69 | | | | | | | 1 | 1 | | | | | | | | | |
| 70 | | | | | | | 1 | 1 | | | | | | | | | |
| 71 | | | | | | | 1 | 1 | | | | | | | | | |
| 72 | | | | | | | 1 | 1 | | | | | | | | | |
| 73 | | | | | | | 1 | 1 | | | | | | | | | |
| 74 | | | | | | | 1 | 1 | | | | | | | | | |
| 75 | | | | | | | 1 | 1 | | | | | | | | | |
| 76 | | | | | | | 1 | 1 | | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | | |
|---------------------|--------------------|-------------|-----------|--------------------|------------|------|----------|-----------------------|---|---|---|---|---|---|---|---|---|--|
| Transect Number: 1C | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| Reading pe | Ludwigia peploides | Scirpus sp. | Typha sp. | Native | Non-native | Both | No Plant | water | | | | | | | | | | |
| 77 | | | | | | | 1 | 1 | | | | | | | | | | |
| 78 | | | | | | | 1 | 1 | | | | | | | | | | |
| 79 | | | | | | | 1 | 1 | | | | | | | | | | |
| 80 | | | | | | | 1 | 1 | | | | | | | | | | |
| 81 | | | | | | | 1 | 1 | | | | | | | | | | |
| 82 | | | | | | | 1 | 1 | | | | | | | | | | |
| 83 | | | | | | | 1 | 1 | | | | | | | | | | |
| 84 | | | | | | | 1 | 1 | | | | | | | | | | |
| 85 | | | | | | | 1 | 1 | | | | | | | | | | |
| 86 | | | | | | | 1 | 1 | | | | | | | | | | |
| 87 | | | | | | | 1 | 1 | | | | | | | | | | |
| 88 | | | | | | | 1 | 1 | | | | | | | | | | |
| 89 | | | | | | | 1 | 1 | | | | | | | | | | |
| 90 | | | | | | | 1 | 1 | | | | | | | | | | |
| 91 | | | | | | | 1 | 1 | | | | | | | | | | |
| Totals | 49 | 49 | 49 | 0 | 0 | 49 | 42 | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | Total Class Cover: | | | | | | | | | | | | | | |
| | | | | Native | | | 53.84615 | | | | | | | | | | | |
| | | | | non-native | | | 53.84615 | | | | | | | | | | | |
| | | | | no vegetation | | | 46.15385 | | | | | | | | | | | |

Total Class Cover Percent Average for 24-2A,B, and C:

| | |
|---------------|----------|
| Native | 6.063333 |
| non-native | 53.88333 |
| no vegetation | 40.37 |

| Reach: 24 | | | | | | | | | | | | | | | | | | |
|---------------------|--------------------------|--------------------|----------------|------------------|---------------------|------------------|-------------------|-------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|----------------|
| Transect Number: 2A | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Chrysanthemum coronarium | Conyza bonariensis | Melilotus alba | non-native grass | Plantago lanceolata | Raphanus sativus | Sonchus oleraceus | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | grouted riprap |
| 1 | | | | | | | 1 | | | | 1 | | | | 1 | | | |
| 2 | | | | | | | 1 | | | | | | | | 1 | | | |
| 3 | | | | | | | 1 | | | | | | | | 1 | | | |
| 4 | | | | | | | 1 | | | | | | | | 1 | | | |
| 5 | | | 1 | | | | | | | | | | | | 1 | | | |
| 6 | | | 1 | | | | | | | | | | | | 1 | | | |
| 7 | | | 1 | | 1 | | | | | | | | | | 1 | | | |
| 8 | 1 | | | | | | | | | | | | | | 1 | | | |
| 9 | | | | | 1 | | | | | | | | | | 1 | | | |
| 10 | | 1 | | | | | | | | | | | | | 1 | | | |
| 11 | | | | | 1 | | 1 | | | | | | | | 1 | | | |
| 12 | | | | | 1 | | | | | | | | | | 1 | | | |
| 13 | | | | | | | | | | | | | | | 1 | | | |
| 14 | | | | | | | 1 | | | | | | | | 1 | | | |
| 15 | | | | | | | 1 | | | | | | | | 1 | | | |
| 16 | | | | | | | 1 | | | | | | | | 1 | | | |
| 17 | 1 | | | | | | | | | | | | | | 1 | | | |
| 18 | | | | | | | 1 | | | | | | | | 1 | | | |
| 19 | | | | | | | 1 | | | | | | | | 1 | | | |
| 20 | | | | | | | 1 | | | | | | | | 1 | | | |
| 21 | | | | | | | 1 | | | | | | | | 1 | | | |
| 22 | | | | | | | 1 | | | | | | | | 1 | | | |
| 23 | | | | | | | 1 | | | | | | | | 1 | | | |
| 24 | | | | | | | 1 | | | | | | 1 | | | | | |
| 25 | | | | | 1 | | | | | | | | | | 1 | | | |
| 26 | | | | | | | 1 | | | | | | | | 1 | | | |
| 27 | | | | | | | 1 | | | | | | | | 1 | | | |
| 28 | | 1 | | | | | | | | | | | | | 1 | | | |
| 29 | | | | | | | 1 | | | | | | | | 1 | | | |
| 30 | | | | | | | | | | | | | 1 | | | | | |
| 31 | | | | | | | | | | | | | 1 | | | | | |
| 32 | | | | | | | | | | | | | 1 | | | | | |
| 33 | | | | | | | | | | | | | 1 | | | | | |
| 34 | | | | | | | | | | | | | 1 | | | | | |
| 35 | | | | | | | | | | | | | 1 | | | | | |
| 36 | | | | | | | | | | | | | 1 | | | | | |
| 37 | | | | | | | | | | | | | 1 | | | | | |
| 38 | | | | | | | | | | | | | 1 | | | | | |
| 39 | | | | | 1 | | | | | | | | | | 1 | | | |
| 40 | | | | | 1 | | | | | | | | | | 1 | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | | |
|---------------------|--------------------------|--------------------|----------------|------------------|---------------------|------------------|-------------------|-------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|----------------|
| Transect Number: 2A | | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| Reading pe | Chrysanthemum coronarium | Conyza bonariensis | Melilotus alba | non-native grass | Plantago lanceolata | Raphanus sativus | Sonchus oleraceus | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | grouted riprap |
| 41 | | | | 1 | | | | | | 1 | | | | | 1 | | | |
| 42 | | | | 1 | | | | | | 1 | | | | | 1 | | | |
| 43 | | | | 1 | | | | | | 1 | | | | | 1 | | | |
| 44 | | | | 1 | | | | | | 1 | | | | | 1 | | | |
| 45 | | | | 1 | | | | | | 1 | | | | | 1 | | | |
| 46 | | | | | | | | | | | | 1 | | | 1 | | | |
| 47 | | | | | | | | | | | | 1 | 1 | | | | | |
| 48 | | | | | | | | | | | | 1 | 1 | | | | | |
| 49 | | | | | | | | | | | | 1 | 1 | | | | | |
| 50 | | | | | | | | | | | | 1 | 1 | | | | | |
| 51 | | | | | | | | 1 | | 1 | | | | | 1 | | | |
| 52 | | | | | | | | 1 | | 1 | | | | | 1 | | | |
| 53 | | | | | | 1 | | | | 1 | | | | | 1 | | | |
| 54 | | | | | | 1 | 1 | | | 1 | | | | | 1 | | | |
| 55 | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 56 | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 57 | | | | | | | 1 | | | 1 | | | | | 1 | | | |
| 58 | | | 1 | | | | 1 | | | 1 | | | | | 1 | | | |
| 59 | | | 1 | | | | | | | 1 | | | | | 1 | | | |
| 60 | | | 1 | | | | | | | 1 | | | | | 1 | | | |
| 61 | | | 1 | | | | | | | 1 | | | | | 1 | | | |
| 62 | | | 1 | | | | | | | 1 | | | | | 1 | | | |
| 63 | | | 1 | | | | | | | 1 | | | | | 1 | | | |
| 64 | | | 1 | | | | | | | 1 | | | | | 1 | | | |
| 65 | | | 1 | | | | | | | 1 | | | | | 1 | | | |
| 66 | | | 1 | | | | | | | 1 | | | | | | | | 1 |
| 67 | | | 1 | | | | | | | 1 | | | | | | | | 1 |
| 68 | | | 1 | | | | | | | 1 | | | | | | | | 1 |
| 69 | | | 1 | | | | | | | 1 | | | | | | | | 1 |
| 70 | | | | | | | | | | | | 1 | | | | | | 1 |
| 71 | | | | | | | | | | | | 1 | | | | | | 1 |
| 72 | | | | | | | | | | | | 1 | | | | | | 1 |
| 73 | | | | | | | | | | | | 1 | | | | | | 1 |
| 74 | | | | | | | | | | | | 1 | | | | | | 1 |
| 75 | | | | | | | | | | | | 1 | | | | | | 1 |
| 76 | | | | | | | | | | | | 1 | | | | | | 1 |
| 77 | | | | | | | | | | | | 1 | | | | | | 1 |
| 78 | | | | | | | | | | | | 1 | | | | | | 1 |
| 79 | | | | | | | | | | | | 1 | | | | | | 1 |
| 80 | | | | | | | | | | | | 1 | | | | | | 1 |

| Reach: 24 | | | | | | | | | | Transect Number: 2A | | | | | | | | | | |
|---------------|--------------------------|--------------------|----------------|------------------|---------------------|------------------|-------------------|-----------|-------------|---------------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|----------------|--|--|
| Reading pe | Vegetation species | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Chrysanthemum coronarium | Conyza bonariensis | Melilotus alba | non-native grass | Plantago lanceolata | Raphanus sativus | Sonchus oleraceus | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | grouted riprap | | |
| 81 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 82 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 83 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 84 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 85 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 86 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 87 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 88 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 89 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 90 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 91 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 92 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 93 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 94 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 95 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 96 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 97 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 98 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 99 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 100 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 101 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 102 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 103 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 104 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 105 | | | | | | | | | | | 1 | | | | | | 1 | | | |
| Totals | 2 | 2 | 15 | 7 | 5 | 2 | 25 | 1 | 0 | 53 | 1 | 51 | 14 | 0 | 51 | 0 | 0 | 40 | | |
| | Total Class Cover: | | | | | | | | | | | | | | | | | | | |
| | Native | | | | | | | | | | | 0.952381 | | | | | | | | |
| | non-native | | | | | | | | | | | 51.42857 | | | | | | | | |
| | no vegetation | | | | | | | | | | | 48.57143 | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|---------------------|---------------------------|-------------------------|---------------------------|-----------------------|----------------------------|--------------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|---|--|
| Transect Number: 2B | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | <i>Conyza bonariensis</i> | <i>Cynodon dactylon</i> | <i>Ludwigia peploides</i> | <i>Melilotus alba</i> | <i>Plantago lanceolata</i> | <i>Sonchus oleraceus</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | |
| 1 | | | 1 | | | | | 1 | | | | | | | 1 | | | | |
| 2 | | | | 1 | | | | 1 | | | | 1 | | | | | | | |
| 3 | 1 | | | 1 | | | | 1 | | | | 1 | | | | | | | |
| 4 | 1 | | | 1 | | | | 1 | | | | 1 | | | | | | | |
| 5 | | | | | 1 | | | 1 | | | | 1 | | | | | | | |
| 6 | | | | | | 1 | | 1 | | | | 1 | | | | | | | |
| 7 | | | | | 1 | | | 1 | | | | 1 | | | | | | | |
| 8 | | | | | 1 | 1 | | 1 | | | | 1 | | | | | | | |
| 9 | | | | | | 1 | | 1 | | | | 1 | | | | | | | |
| 10 | | | | | | 1 | | 1 | | | | 1 | | | | | | | |
| 11 | | | | | 1 | | | 1 | | | | 1 | | | | | | | |
| 12 | | | | | 1 | | | 1 | | | | 1 | | | | | | | |
| 13 | | | | | 1 | 1 | | 1 | | | | 1 | | | | | | | |
| 14 | | | | | 1 | | | 1 | | | | 1 | | | | | | | |
| 15 | | | | | 1 | | | 1 | | | | 1 | | | | | | | |
| 16 | | | | | | 1 | | 1 | | | | 1 | | | | | | | |
| 17 | | | | | 1 | 1 | | 1 | | | | 1 | | | | | | | |
| 18 | | | | | | 1 | | 1 | | | | 1 | | | | | | | |
| 19 | | | | | | 1 | | 1 | | | | 1 | | | | | | | |
| 20 | | | | | | 1 | | 1 | | | | 1 | | | | | | | |
| 21 | | | | | | 1 | | 1 | | | | 1 | | | | | | | |
| 22 | | | | | | 1 | | 1 | | | | 1 | | | | | | | |
| 23 | 1 | | | | | | | 1 | | | | 1 | | | | | | | |
| 24 | | | | | | 1 | | 1 | | | | 1 | | | | | | | |
| 25 | | | | | | 1 | | 1 | | | | 1 | | | | | | | |
| 26 | 1 | | | | | | | 1 | | | | 1 | | | | | | | |
| 27 | | | | | | 1 | | 1 | | | | 1 | | | | | | | |
| 28 | 1 | | | | | | | 1 | | | | 1 | | | | | | | |
| 29 | | | | | | | | | 1 | | | 1 | | | | | | | |
| 30 | | | | | | | | | 1 | | | 1 | | | | | | | |
| 31 | | | | | | | | | 1 | | | 1 | | | | | | | |
| 32 | | | | | | | | | 1 | | 1 | | | | | | | | |
| 33 | | | | | 1 | | | 1 | | | 1 | | | | | | | | |
| 34 | | | | | 1 | | | 1 | | | | 1 | | | | | | | |
| 35 | | | | | 1 | | | 1 | | | | | | | | | | 1 | |
| 36 | | | | | 1 | | | 1 | | | | | | | | | | 1 | |
| 37 | | | | | | | | 1 | | | | 1 | | | | | | | |
| 38 | | | | | | | | | 1 | | | | | | | | | 1 | |

| Reach: 24 | | | | | | | | | | | | | | | | | |
|---------------------|---------------------------|-------------------------|---------------------------|-----------------------|----------------------------|--------------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|
| Transect Number: 2B | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | <i>Conyza bonariensis</i> | <i>Cynodon dactylon</i> | <i>Ludwigia peploides</i> | <i>Melilotus alba</i> | <i>Plantago lanceolata</i> | <i>Sonchus oleraceus</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap |
| 39 | | | | | | | | | 1 | | | | | | | | 1 |
| 40 | | | | | | | | | 1 | | | | | | | | 1 |
| 41 | | | | | | | | | 1 | | | | | | | | 1 |
| 42 | | | | | | | | | 1 | | | | | | | | 1 |
| 43 | | | | | | | | | 1 | | | | | | | | 1 |
| 44 | | | | | | | | | 1 | | | | | | | | 1 |
| 45 | | | | | | | | | 1 | | | | | | | | 1 |
| 46 | | | | | | | | | 1 | | | | | | | | 1 |
| 47 | | | | | | | | | 1 | | | | | | | | 1 |
| 48 | | | | | | | | | 1 | | | | | | | | 1 |
| 49 | | | | | | | | | 1 | | | | | | | | 1 |
| 50 | | | | | | | | | 1 | | | | | | | | 1 |
| 51 | | | | | | | | | 1 | | | | | | | | 1 |
| 52 | | | | | | | | | 1 | | | | | | | | 1 |
| 53 | | | | | | | | | 1 | | | | | | | | 1 |
| 54 | | | | | | | | | 1 | | | | | | | | 1 |
| 55 | | | | | | | | | 1 | | | | | | | | 1 |
| 56 | | | | | | | | | 1 | | | | | | | | 1 |
| 57 | | | | | | | | | 1 | | | | | | | | 1 |
| 58 | | | | | | | | | 1 | | | | | | | | 1 |
| 59 | | | | | | | | | 1 | | | | | | | | 1 |
| 60 | | | | | | | | | 1 | | | | | | | | 1 |
| 61 | | | | | | | | | 1 | | | | | | | | 1 |
| 62 | | | | | | | | | 1 | | | | | | | | 1 |
| 63 | | | | | | | | | 1 | | | | | | | | 1 |
| 64 | | | | | | | | | 1 | | | | | | | | 1 |
| 65 | | | | | | | | | 1 | | | | | | | | 1 |
| 66 | | | | | | | | | 1 | | | | | | | | 1 |
| 67 | | | | | | | | | 1 | | | | | | | | 1 |
| 68 | | | | | | | | | 1 | | | | | | | | 1 |
| 69 | | | | | | | | | 1 | | | | | | | | 1 |
| 70 | | | | | | | | | 1 | | | | | | | | 1 |
| 71 | | | | | | | | | 1 | | | | | | | | 1 |
| 72 | | | | | | | | | 1 | | | | | | | | 1 |
| 73 | | | | | | | | | 1 | | | | | | | | 1 |
| 74 | | | | | | | | | 1 | | | | | | | | 1 |
| 75 | | | | | | | | | 1 | | | | | | | | 1 |
| 76 | | | | | | | | | 1 | | | | | | | | 1 |

| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|---------------------|---------------------------|-------------------------|---------------------------|-----------------------|----------------------------|--------------------------|--------------------|------------|-------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|---|--|
| Transect Number: 2B | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading pe | <i>Conyza bonariensis</i> | <i>Cynodon dactylon</i> | <i>Ludwigia peploides</i> | <i>Melilotus alba</i> | <i>Plantago lanceolata</i> | <i>Sonchus oleraceus</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | |
| 77 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 78 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 79 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 80 | | | | | | | | | | 1 | | | | | | | | 1 | |
| Totals | 5 | 0 | 1 | 7 | 9 | 15 | 0 | 33 | 0 | 47 | 2 | 0 | 32 | 0 | 1 | 0 | 45 | | |
| | | | | | | | Total Class Cover: | | | | | | | | | | | | |
| | | | | | | | Native | | 0 | | | | | | | | | | |
| | | | | | | | non-native | | 41.25 | | | | | | | | | | |
| | | | | | | | no vegetation | | 58.75 | | | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | |
|---------------------|--------------------|-------------|--------------------|------------|----------|-----------------------|-------|---|---|---|---|---|---|---|---|---|---|
| Transect Number: 2C | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | |
| Reading pe | Ludwigia peploides | Typha sp. | Native | Non-native | Both | No Plant | water | | | | | | | | | | |
| 1 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 2 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 3 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 4 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 5 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 6 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 7 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 8 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 9 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 10 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 11 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 12 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 13 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 14 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 15 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 16 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 17 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 18 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 19 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 20 | 1 | | | 1 | | | 1 | | | | | | | | | | |
| 21 | | 1 | 1 | | | | 1 | | | | | | | | | | |
| 22 | | 1 | 1 | | | | 1 | | | | | | | | | | |
| 23 | | 1 | 1 | | | | 1 | | | | | | | | | | |
| 24 | | 1 | 1 | | | | 1 | | | | | | | | | | |
| 25 | | 1 | 1 | | | | 1 | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | 1 | |
| 27 | | | | | | | | | | | | | | | | 1 | |
| 28 | | | | | | | | | | | | | | | | 1 | |
| 29 | | | | | | | | | | | | | | | | 1 | |
| Totals | 20 | 5 | 5 | 20 | 0 | 4 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | Total Class Cover: | | | | | | | | | | | | | | |
| | | | Native | | 17.24138 | | | | | | | | | | | | |
| | | | non-native | | 68.96552 | | | | | | | | | | | | |
| | | | no vegetation | | 13.7931 | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | |
|---------------------|---------------------------------|--|-------------|------------|------|----------|--|-----------------------|--|--|--|--|--|--|--|--|
| Reach: 24 | | | | | | | | | | | | | | | | |
| Transect Number: 2C | | | | | | | | | | | | | | | | |
| | Vegetation species | | Class Cover | | | | | Ground Cover Material | | | | | | | | |
| Reading pe | Ludwigia peploides Typha sp. | | Native | Non-native | Both | No Plant | | water | | | | | | | | |
| | | | | | | | | | | | | | | | | |

Total Class Cover Percent Average for 24-3A,B, and C:

| | |
|---------------|----------|
| Native | 2.713333 |
| non-native | 31.75 |
| no vegetation | 67.08333 |

| Reach: 24 | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|--------------------|----------------|---------------------|-------------------|--------|-------------|------|----------|------|-----------------------|-------------|---------------------|-------|-----|----------------|---|--|
| Transect Number: 3A | | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading pe | Ambrosia psilostachya | Cyperus sp. | Melilotus alba | Plantago lanceolata | Sonchus oleraceus | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | |
| 1 | | 1 | 1 | | | | 1 | | | | | | | | 1 | | | |
| 2 | 1 | | | | | | | 1 | | | | 1 | | | | | | |
| 3 | 1 | | 1 | | | | | 1 | | | | 1 | | | | | | |
| 4 | | | 1 | 1 | | | 1 | | | | | 1 | | | | | | |
| 5 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 6 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 7 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 8 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 9 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 10 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 11 | | | 1 | 1 | | | 1 | | | | | 1 | | | | | | |
| 12 | | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 13 | | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 14 | | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 15 | | | 1 | 1 | | | 1 | | | | | 1 | | | | | | |
| 16 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 17 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 18 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 19 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 20 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 21 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 22 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 23 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 24 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 25 | | | 1 | | | | 1 | | | | | 1 | | | | | | |
| 26 | | | 1 | | | | 1 | | | | | | | | | | 1 | |
| 27 | | | 1 | | | | 1 | | | | | | | | | | 1 | |
| 28 | | | 1 | | | | 1 | | | | | | | | | | 1 | |
| 29 | | | 1 | 1 | | | 1 | | | | | | | | | | 1 | |
| 30 | | | | 1 | | | 1 | | | | | | | | | | 1 | |
| 31 | | | 1 | | | | 1 | | | | | | | | | | 1 | |
| 32 | | | 1 | | | | 1 | | | | | | | | | | 1 | |
| 33 | | | 1 | | | | 1 | | | | | | | | | | 1 | |
| 34 | | | 1 | | | | 1 | | | | | | | | | | 1 | |
| 35 | | | 1 | | | | 1 | | | | | | | | | | 1 | |
| 36 | | | 1 | | | | 1 | | | | | | | | | | 1 | |
| 37 | | | 1 | | | | 1 | | | | | | | | | | 1 | |
| 38 | | | 1 | | | | 1 | | | | | | | | | | 1 | |

| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|-------------|----------------|---------------------|-------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|--|--|---|
| Transect Number: 3A | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Ambrosia psilostachya | Cyperus sp. | Melilotus alba | Plantago lanceolata | Sonchus oleraceus | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | | |
| 39 | | | 1 | | | | 1 | | | | | | | | | | | | 1 |
| 40 | | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 41 | | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 42 | | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 43 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 44 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 45 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 46 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 47 | | | | | | | 1 | | | | | 1 | | | | | | | |
| 48 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 49 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 50 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 51 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 52 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 53 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 54 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 55 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 56 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 57 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 58 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 59 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 60 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 61 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 62 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 63 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 64 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 65 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 66 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 67 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 68 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 69 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 70 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 71 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 72 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 73 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 74 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 75 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 76 | | | | | | | | | 1 | | | | | | | | | | 1 |

| Reach: 24 | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|-------------|----------------|---------------------|-------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|
| Transect Number: 3A | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Ambrosia psilostachya | Cyperus sp. | Melilotus alba | Plantago lanceolata | Sonchus oleraceus | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap |
| 77 | | | | | | | | | 1 | | | | | | | 1 |
| 78 | | | | | | | | | 1 | | | | | | | 1 |
| 79 | | | | | | | | | 1 | | | | | | | 1 |
| 80 | | | | | | | | | 1 | | | | | | | 1 |
| 81 | | | | | | | | | 1 | | | | | | | 1 |
| 82 | | | | | | | | | 1 | | | | | | | 1 |
| 83 | | | | | | | | | 1 | | | | | | | 1 |
| 84 | | | | | | | | | 1 | | | | | | | 1 |
| 85 | | | | | | | | | 1 | | | | | | | 1 |
| 86 | | | | | | | | | 1 | | | | | | | 1 |
| 87 | | | | | | | | | 1 | | | | | | | 1 |
| 88 | | | | | | | | | 1 | | | | | | | 1 |
| 89 | | | | | | | | | 1 | | | | | | | 1 |
| 90 | | | | | | | | | 1 | | | | | | | 1 |
| 91 | | | | | | | | | 1 | | | | | | | 1 |
| 92 | | | | | | | | | 1 | | | | | | | 1 |
| 93 | | | | | | | | | 1 | | | | | | | 1 |
| 94 | | | | | | | | | 1 | | | | | | | 1 |
| 95 | | | | | | | | | 1 | | | | | | | 1 |
| 96 | | | | | | | | | 1 | | | | | | | 1 |
| 97 | | | | | | | | | 1 | | | | | | | 1 |
| 98 | | | | | | | | | 1 | | | | | | | 1 |
| 99 | | | | | | | | | 1 | | | | | | | 1 |
| 100 | | | | | | | | | 1 | | | | | | | 1 |
| Totals | 2 | 1 | 37 | 8 | 5 | 0 | 45 | 2 | 53 | 0 | 0 | 32 | 0 | 0 | 1 | 67 |
| | | | | | | Total Class Cover: | | | | | | | | | | |
| | | | | | | Native | | | 2 | | | | | | | |
| | | | | | | non-native | | | 47 | | | | | | | |
| | | | | | | no vegetation | | | 53 | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|-----------------|----------------|---------------------|---------------------|-------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|
| Transect Number: 3B | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Ambrosia psilostachya | Aster subulatus | Melilotus alba | Plantago lanceolata | Scirpus californica | Sonchus oleraceus | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap |
| 1 | | | | | 1 | | 1 | | | | | | | | 1 | | |
| 2 | | | | | 1 | | 1 | | | | | | | | 1 | | |
| 3 | | | | | 1 | | 1 | | | | | | | | 1 | | |
| 4 | 1 | | | | 1 | | | | 1 | | | | | | 1 | | |
| 5 | 1 | | | | 1 | | | | 1 | | | | | | | | |
| 6 | 1 | | | | | | | 1 | | | | | 1 | | | | |
| 7 | 1 | | | | 1 | | | | 1 | | | | | | | | |
| 8 | 1 | | | | | | | 1 | | | | | | | | | |
| 9 | 1 | 1 | 1 | | | | | | 1 | | | | | | | | |
| 10 | 1 | | | | | | | | 1 | | | | | | | | |
| 11 | | | 1 | | | | | | 1 | | | | | | | | |
| 12 | | | 1 | | | | | | | | | | | | | | |
| 13 | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 14 | | | 1 | | | | | | 1 | | | | | | | | |
| 15 | | | 1 | 1 | | | | | 1 | | | | | | | | |
| 16 | | | 1 | 1 | | | | | 1 | | | | | | | | |
| 17 | | | 1 | 1 | | | | | 1 | | | | | | | | |
| 18 | | | 1 | 1 | | | | | 1 | | | | | | | | |
| 19 | | | 1 | 1 | | | | | 1 | | | | | | | | |
| 20 | | | 1 | 1 | | | | | 1 | | | | | | | | |
| 21 | | | 1 | 1 | | | | | 1 | | | | | | | | |
| 22 | | | 1 | | | 1 | | | 1 | | 1 | | | | | | |
| 23 | | | 1 | | | | | | 1 | | 1 | | | | | | |
| 24 | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 25 | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 26 | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 27 | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 28 | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 29 | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 30 | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 31 | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 32 | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 33 | | | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 34 | | | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 35 | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 36 | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 37 | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 38 | | | 1 | | | | | | 1 | | | | 1 | | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|-----------------|----------------|---------------------|---------------------|-------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|
| Transect Number: 3B | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Ambrosia psilostachya | Aster subulatus | Melilotus alba | Plantago lanceolata | Scirpus californica | Sonchus oleraceus | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap |
| 39 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 40 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 41 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 42 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 43 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 44 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 45 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 46 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 47 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 48 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 49 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 50 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 51 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 52 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 53 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 54 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 55 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 56 | | | 1 | | | | | 1 | | | | | | | | | 1 |
| 57 | | | 1 | | | | | 1 | | | | | | | | | 1 |
| 58 | | | | | | 1 | | 1 | | | | | | | | | 1 |
| 59 | | | | | | 1 | | 1 | | | | | | | | | 1 |
| 60 | | | | | | | | | 1 | | | 1 | | | | | |
| 61 | | | | | | | | | 1 | | | | | | | | 1 |
| 62 | | | | | | | | | 1 | | | | | | | | 1 |
| 63 | | | | | | | | | 1 | | | | | | | | 1 |
| 64 | | | | | | | | | 1 | | | | | | | | 1 |
| 65 | | | | | | | | | 1 | | | | | | | | 1 |
| 66 | | | | | | | | | 1 | | | | | | | | 1 |
| 67 | | | | | | | | | 1 | | | | | | | | 1 |
| 68 | | | | | | | | | 1 | | | | | | | | 1 |
| 69 | | | | | | | | | 1 | | | | | | | | 1 |
| 70 | | | | | | | | | 1 | | | | | | | | 1 |
| 71 | | | | | | | | | 1 | | | | | | | | 1 |
| 72 | | | | | | | | | 1 | | | | | | | | 1 |
| 73 | | | | | | | | | 1 | | | | | | | | 1 |
| 74 | | | | | | | | | 1 | | | | | | | | 1 |
| 75 | | | | | | | | | 1 | | | | | | | | 1 |
| 76 | | | | | | | | | 1 | | | | | | | | 1 |

| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|-----------------|----------------|---------------------|---------------------|-------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|--|---|
| Transect Number: 3B | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Ambrosia psilostachya | Aster subulatus | Melilotus alba | Plantago lanceolata | Scirpus californica | Sonchus oleraceus | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | |
| 77 | | | | | | | | | | | | | | | | | | | 1 |
| 78 | | | | | | | | | | | | | | | | | | | 1 |
| 79 | | | | | | | | | | | | | | | | | | | 1 |
| 80 | | | | | | | | | | | | | | | | | | | 1 |
| 81 | | | | | | | | | | | | | | | | | | | 1 |
| 82 | | | | | | | | | | | | | | | | | | | 1 |
| 83 | | | | | | | | | | | | | | | | | | | 1 |
| 84 | | | | | | | | | | | | | | | | | | | 1 |
| 85 | | | | | | | | | | | | | | | | | | | 1 |
| 86 | | | | | | | | | | | | | | | | | | | 1 |
| 87 | | | | | | | | | | | | | | | | | | | 1 |
| 88 | | | | | | | | | | | | | | | | | | | 1 |
| 89 | | | | | | | | | | | | | | | | | | | 1 |
| 90 | | | | | | | | | | | | | | | | | | | 1 |
| 91 | | | | | | | | | | | | | | | | | | | 1 |
| 92 | | | | | | | | | | | | | | | | | | | 1 |
| 93 | | | | | | | | | | | | | | | | | | | 1 |
| 94 | | | | | | | | | | | | | | | | | | | 1 |
| 95 | | | | | | | | | | | | | | | | | | | 1 |
| 96 | | | | | | | | | | | | | | | | | | | 1 |
| 97 | | | | | | | | | | | | | | | | | | | 1 |
| 98 | | | | | | | | | | | | | | | | | | | 1 |
| 99 | | | | | | | | | | | | | | | | | | | 1 |
| 100 | | | | | | | | | | | | | | | | | | | 1 |
| 101 | | | | | | | | | | | | | | | | | | | 1 |
| 102 | | | | | | | | | | | | | | | | | | | 1 |
| 103 | | | | | | | | | | | | | | | | | | | 1 |
| 104 | | | | | | | | | | | | | | | | | | | 1 |
| 105 | | | | | | | | | | | | | | | | | | | 1 |
| 106 | | | | | | | | | | | | | | | | | | | 1 |
| 107 | | | | | | | | | | | | | | | | | | | 1 |
| 108 | | | | | | | | | | | | | | | | | | | 1 |
| 109 | | | | | | | | | | | | | | | | | | | 1 |
| 110 | | | | | | | | | | | | | | | | | | | 1 |
| 111 | | | | | | | | | | | | | | | | | | | 1 |
| 112 | | | | | | | | | | | | | | | | | | | 1 |
| 113 | | | | | | | | | | | | | | | | | | | 1 |
| 114 | | | | | | | | | | | | | | | | | | | 1 |

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|---------------------|------------------------------|------------------------|-----------------------|----------------------------|----------------------------|--------------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|--|--|--|
| Reach: 24 | | | | | | | | | | | | | | | | | | | | |
| Transect Number: 3B | | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | <i>Ambrosia psilostachya</i> | <i>Aster subulatus</i> | <i>Melilotus alba</i> | <i>Plantago lanceolata</i> | <i>Scirpus californica</i> | <i>Sonchus oleraceus</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | | |
| Totals | 8 | 1 | 48 | 9 | 6 | 3 | 3 | 51 | 4 | 55 | 2 | 0 | 50 | 0 | 4 | 0 | 58 | | | |
| | | | | | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | | | | | Native | | | 6.140351 | | | | | | | | | | |
| | | | | | | | non-native | | | 48.24561 | | | | | | | | | | |
| | | | | | | | no vegetation | | | 48.24561 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
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|-------------------|--------------------|--------------------|------------|------|----------|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Reach: | | | | | | | | | | | | | | | | | | | |
| Transect Number: | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | water | | | | | | | | | | | | | |
| 1 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 2 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 3 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 4 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 5 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 6 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 7 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 8 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 9 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 10 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 11 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 12 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 13 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 14 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 15 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 16 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 17 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 18 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 19 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 20 | | | | | 1 | 1 | | | | | | | | | | | | | |
| 21 | | | | | 1 | 1 | | | | | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 21 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Total Class Cover: | | | | | | | | | | | | | | | | | |
| | | | | | 0 | | | | | | | | | | | | | | |
| | | | | | 0 | | | | | | | | | | | | | | |
| | | | | | 100 | | | | | | | | | | | | | | |

Total Class Cover Percent Average for 24-4A,B, and C:

| | |
|---------------|----------|
| Native | 3.203333 |
| non-native | 68.37667 |
| no vegetation | 31.72333 |

| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|--------------------|-------------------|--------------------|-----------------|---------------|---------------------|-------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|
| Transect Number: 4A | | Vegetation species | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| Reading pe | Ambrosia psilostachya | Conyza bonariensis | Helianthus annuus | Ludwigia peploides | Mellilotus alba | Polygonum sp. | Scirpus californica | Sonchus oleraceus | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap |
| 1 | | | | 1 | | 1 | | | | 1 | | | | | | | 1 | | |
| 2 | | | | 1 | | | 1 | | | | 1 | | | | | | 1 | | |
| 3 | | | | 1 | | | | | | | 1 | | | | | | 1 | | |
| 4 | | | | 1 | | | | | | | 1 | | | | | | 1 | | |
| 5 | 1 | | | 1 | | | | | | | 1 | | | | | | 1 | | |
| 6 | 1 | | | | | 1 | | | | 1 | | | | | | | | 1 | |
| 7 | 1 | | | | | 1 | | | | 1 | | | | | | | | | 1 |
| 8 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 9 | | | 1 | | | 1 | | | | | 1 | | | | | 1 | | | |
| 10 | | | 1 | | | 1 | | | | | 1 | | | | | 1 | | | |
| 11 | | | 1 | | | 1 | | | | | 1 | | | | | 1 | | | |
| 12 | | | 1 | | | 1 | | | | | 1 | | | | | 1 | | | |
| 13 | | | 1 | | | 1 | | | | | 1 | | | | | 1 | | | |
| 14 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 15 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 16 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 17 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 18 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 19 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 20 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 21 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 22 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 23 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 24 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 25 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 26 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 27 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 28 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 29 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 30 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 31 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 32 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 33 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 34 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 35 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 36 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 37 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 38 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 39 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 40 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |
| 41 | | | | | | 1 | | | | 1 | | | | | | 1 | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|--------------------|-------------------|--------------------|-----------------|---------------|---------------------|-------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|
| Transect Number: 4A | | Vegetation species | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| Reading pe | Ambrosia psilostachya | Conyza bonariensis | Helianthus annuus | Ludwigia peploides | Mellilotus alba | Polygonum sp. | Scirpus californica | Sonchus oleraceus | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | Grouted riprap |
| 42 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 43 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 44 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 45 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 46 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 47 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 48 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 49 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 50 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 51 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 52 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 53 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 54 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 55 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 56 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 57 | | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 58 | | 1 | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 59 | | 1 | | | | | | | | 1 | | | | | 1 | | | | |
| 60 | | | | | | | | 1 | | 1 | | | | | 1 | | | | |
| 61 | | | | 1 | | | | 1 | | 1 | | | | | 1 | | | | |
| 62 | | | | | | | | 1 | | 1 | | | | | 1 | | | | |
| 63 | | | | | | | | 1 | | 1 | | | | | 1 | | | | |
| 64 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 65 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 66 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 67 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 68 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 69 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 70 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 71 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 72 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 73 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 74 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 75 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 76 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 77 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 78 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 79 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 80 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 81 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 82 | | | | | | | | | | | | 1 | | | | | | | 1 |

| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|--------------------|-------------------|--------------------|-----------------|---------------|---------------------|-------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|
| Transect Number: 4A | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| Reading pe | Ambrosia psilostachya | Conyza bonariensis | Helianthus annuus | Ludwigia peploides | Mellilotus alba | Polygonum sp. | Scirpus californica | Sonchus oleraceus | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap |
| 83 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 84 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 85 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 86 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 87 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 88 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 89 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 90 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 91 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 92 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 93 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 94 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 95 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 96 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 97 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 98 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 99 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 100 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 101 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 102 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 103 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 104 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 105 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 106 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 107 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 108 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 109 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 110 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 111 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 112 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 113 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 114 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 115 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 116 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 117 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 118 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 119 | | | | | | | | | | | | 1 | | | | | | | 1 |
| 120 | | | | | | | | | | | | 1 | | | | | | | 1 |
| Totals | 3 | 2 | 5 | 5 | 54 | 1 | 4 | 4 | 0 | 54 | 9 | 57 | 0 | 0 | 57 | 0 | 5 | 1 | 57 |
| | | | | | | | | | Total Class Cover: | | | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|--------------------|----------------|---------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|--|--|---|
| Transect Number: 4B | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Ambrosia psilostachya | Coryza bonariensis | Melilotus alba | Polygonum sp. | Scirpus californica | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | | |
| 39 | | | 1 | | | | 1 | | | | | | | | | | | | 1 |
| 40 | | | 1 | | | | 1 | | | | | | | | | | | | 1 |
| 41 | | | 1 | | | | 1 | | | | | | | | | | | | 1 |
| 42 | | | 1 | | | | 1 | | | | | | | | | | | | 1 |
| 43 | | | 1 | | | | 1 | | | | | | | | | | | | 1 |
| 44 | | | 1 | | | | 1 | | | | | | | | | | | | 1 |
| 45 | | | 1 | | | | 1 | | | | | | | | | | | | 1 |
| 46 | | | 1 | | | | 1 | | | | | | | | | | | | 1 |
| 47 | | | 1 | | | | 1 | | | | | | | | | | | | 1 |
| 48 | | | | | | | | | | | | | | | | | | | 1 |
| 49 | | | | | | | | | | | | | | | | | | | 1 |
| 50 | | | | | | | | | | | | | | | | | | | 1 |
| 51 | | | | | | | | | | | | | | | | | | | 1 |
| 52 | | | | | | | | | | | | | | | | | | | 1 |
| 53 | | | | | | | | | | | | | | | | | | | 1 |
| 54 | | | | | | | | | | | | | | | | | | | 1 |
| 55 | | | | | | | | | | | | | | | | | | | 1 |
| 56 | | | | | | | | | | | | | | | | | | | 1 |
| 57 | | | | | | | | | | | | | | | | | | | 1 |
| 58 | | | | | | | | | | | | | | | | | | | 1 |
| 59 | | | | | | | | | | | | | | | | | | | 1 |
| 60 | | | | | | | | | | | | | | | | | | | 1 |
| 61 | | | | | | | | | | | | | | | | | | | 1 |
| 62 | | | | | | | | | | | | | | | | | | | 1 |
| 63 | | | | | | | | | | | | | | | | | | | 1 |
| 64 | | | | | | | | | | | | | | | | | | | 1 |
| 65 | | | | | | | | | | | | | | | | | | | 1 |
| 66 | | | | | | | | | | | | | | | | | | | 1 |
| 67 | | | | | | | | | | | | | | | | | | | 1 |
| 68 | | | | | | | | | | | | | | | | | | | 1 |
| 69 | | | | | | | | | | | | | | | | | | | 1 |
| 70 | | | | | | | | | | | | | | | | | | | 1 |
| 71 | | | | | | | | | | | | | | | | | | | 1 |
| 72 | | | | | | | | | | | | | | | | | | | 1 |
| 73 | | | | | | | | | | | | | | | | | | | 1 |
| 74 | | | | | | | | | | | | | | | | | | | 1 |
| 75 | | | | | | | | | | | | | | | | | | | 1 |
| 76 | | | | | | | | | | | | | | | | | | | 1 |

| Reach: 24 | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|--------------------|----------------|---------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|
| Transect Number: 4B | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Ambrosia psilostachya | Conyza bonariensis | Melilotus alba | Polygonum sp. | Scirpus californica | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap |
| 77 | | | | | | | | | 1 | | | | | | | 1 |
| 78 | | | | | | | | | 1 | | | | | | | 1 |
| 79 | | | | | | | | | 1 | | | | | | | 1 |
| 80 | | | | | | | | | 1 | | | | | | | 1 |
| 81 | | | | | | | | | 1 | | | | | | | 1 |
| 82 | | | | | | | | | 1 | | | | | | | 1 |
| 83 | | | | | | | | | 1 | | | | | | | 1 |
| 84 | | | | | | | | | 1 | | | | | | | 1 |
| 85 | | | | | | | | | 1 | | | | | | | 1 |
| 86 | | | 1 | | | | 1 | | | | | | | | | 1 |
| 87 | | | 1 | | | | 1 | | | | | | | | | 1 |
| 88 | | | 1 | | | | 1 | | | | | | | | | 1 |
| 89 | | | 1 | | | | 1 | | | | | | | | | 1 |
| 90 | | | 1 | | | | 1 | | | | | | | | | 1 |
| 91 | | | | | | | | | 1 | | | | | | | 1 |
| 92 | | | | | | | | | 1 | | | | | | | 1 |
| 93 | | | | | | | | | 1 | | | | | | | 1 |
| 94 | | | | | | | | | 1 | | | | | | | 1 |
| 95 | | | | | | | | | 1 | | | | | | | 1 |
| Totals | 4 | 1 | 46 | 2 | 2 | 0 | 48 | 2 | 45 | 0 | 0 | 33 | 0 | 0 | 1 | 61 |
| Total Class Cover: | | | | | | | | | | | | | | | | |
| Native | | | | | | 2.105263 | | | | | | | | | | |
| non-native | | | | | | 52.63158 | | | | | | | | | | |
| no vegetation | | | | | | 47.36842 | | | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | |
|---------------------|--------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|
| Transect Number: 4C | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | |
| Reading pe | Ludwigia peploides | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete |
| 1 | 1 | | 1 | | | | | | | 1 | | |
| 2 | 1 | | 1 | | | | | | | 1 | | |
| 3 | 1 | | 1 | | | | | | | 1 | | |
| 4 | 1 | | 1 | | | | | | | 1 | | |
| 5 | 1 | | 1 | | | | | | | 1 | | |
| 6 | 1 | | 1 | | | | | | | 1 | | |
| 7 | 1 | | 1 | | | | | | | 1 | | |
| 8 | 1 | | 1 | | | | | | | 1 | | |
| 9 | 1 | | 1 | | | | | | | 1 | | |
| 10 | 1 | | 1 | | | | | | | 1 | | |
| 11 | 1 | | 1 | | | | | | | 1 | | |
| 12 | 1 | | 1 | | | | | | | 1 | | |
| 13 | 1 | | 1 | | | | | | | 1 | | |
| 14 | 1 | | 1 | | | | | | | 1 | | |
| 15 | 1 | | 1 | | | | | | | 1 | | |
| 16 | 1 | | 1 | | | | | | | 1 | | |
| 17 | 1 | | 1 | | | | | | | 1 | | |
| 18 | 1 | | 1 | | | | | | | 1 | | |
| Totals | 18 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 |
| | | Total Class Cover: | | | | | | | | | | |
| | | | | | 0 | | | | | | | |
| | | | | | 100 | | | | | | | |
| | | | | | 0 | | | | | | | |

Total Class Cover Percent Average for 25-1A,B, and C:

| | |
|---------------|----------|
| Native | 46.58333 |
| non-native | 46.66667 |
| no vegetation | 36.82 |

| Vegetation species | | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | |
|--------------------|-------------|--------------------|-----------------------|--------------------|-----------------|------------------|---------------------|---------------|------------------|------------------|---------------------------|------------------------|---------------------|--------------------|-----------|---------------------|--------|-----------------------|------|----------|------|-------------|-------------|---------------------|-------|-----|-------|------------------|--|
| Reading pt | Cyperus sp. | Conyza bonariensis | Euthamia occidentalis | Ludwigia peploides | Mellilotus alba | non-native grass | Plantago lanceolata | Polygonum sp. | Raphanus sativus | Ricinus communis | Salix gooddingii-seedling | Salix gooddingii-shrub | Scirpus californica | Solanum americanum | Typha sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | trash | ungROUTED riprap | |
| 1 | | | | | | 1 | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | | | |
| 2 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | | | |
| 3 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | | | |
| 4 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | | | |
| 5 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| 6 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | | |
| 7 | | | | | | | | 1 | | | | | | | | | 1 | | 1 | | | | 1 | | | | | | |
| 8 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | | | |
| 9 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | | | |
| 10 | 1 | | | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | | | |
| 11 | 1 | | | | | | | | | | | | | | 1 | | 1 | | | | | | 1 | | | | | | |
| 12 | | | | | | 1 | | | | | | | | | | | 1 | | 1 | | | 1 | | | | | | | |
| 13 | | | | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | |
| 14 | | | | | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| 15 | | | | | | | | 1 | | | | | | | | 1 | | | 1 | | | | 1 | | | | | | |
| 16 | 1 | | | | | | | 1 | | | | | | | | 1 | | | | | | | 1 | | | 1 | | | |
| 17 | 1 | | | | | | | 1 | | | | | | | 1 | | 1 | | | | | | 1 | | | 1 | | | |
| 18 | 1 | | | | | | | 1 | | | | | | | | 1 | | | | | | | 1 | | | | | | |
| 19 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | | |
| 20 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | | |
| 21 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | | |
| 22 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | | |
| 23 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | | |
| 24 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | 1 | | | | | | |
| 25 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | 1 | | | | | | |
| 26 | | | | | | 1 | | | | | | | | | | 1 | | | | | | | 1 | | | | | | |
| 27 | | | | | | 1 | | | | | | | | | | 1 | | | | | | | 1 | | | | | | |
| 28 | 1 | 1 | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | | |
| 29 | | | | | | 1 | | | | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 30 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| 31 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| 32 | 1 | | | | 1 | | | | | | | | | | | | | | 1 | | | | 1 | | | | | | |
| 33 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| 34 | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 35 | | | | 1 | | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 36 | | | | 1 | | | | | | | 1 | | | | | | | | | | | | 1 | | | | | | |
| 37 | | | | | | | 1 | | | | 1 | | | | | | | | | | | | 1 | | | | | | |
| 38 | | | | | | 1 | 1 | | | | 1 | | | | | | | | | | | | 1 | | | | | | |
| 39 | | | 1 | | | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 40 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 41 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 42 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 43 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 44 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 45 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 46 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 47 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 48 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 49 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 50 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 51 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 52 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 53 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 54 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 55 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 56 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 57 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 58 | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 59 | | | 1 | | | | | 1 | | | | | | | | | | | | | | | 1 | | | | | | |
| 60 | | | 1 | | | | | 1 | | | | | | | | | | | | | | | 1 | | | | | | |
| 61 | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | | | | | | |
| 62 | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | | | | | | |
| 63 | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|--------------------|--------------------|-----------------------|--------------------|-----------------|------------------|---------------------|---------------|------------------|------------------|---------------------------|------------------------|---------------------|--------------------|-----------|---------------------|--------|------------|----------|-----------------------|------|-------------|-------------|---------------------|-------|-----|-------|------------------|
| Transect Number: 1A | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pt | Vegetation species | | | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Cyperus sp. | Conyza bonariensis | Euthamia occidentalis | Ludwigia peploides | Mellilotus alba | non-native grass | Plantago lanceolata | Polygonum sp. | Raphanus sativus | Ricinus communis | Salix gooddingii-seedling | Salix gooddingii-shrub | Scirpus californica | Solanum americanum | Typha sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | trash | ungROUTED riprap |
| 64 | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 65 | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | | | 1 | | | | |
| 66 | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | | | 1 | | | | |
| 67 | | | | | | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | |
| 68 | | | | | | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | |
| 69 | | | | | | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | |
| 70 | | | | | | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | |
| 71 | | | | | | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | |
| 72 | | | | | | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | |
| 73 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | 1 | | | | |
| 74 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | 1 | | | | |
| 75 | | | | | | 1 | | 1 | | | | | | | | 1 | | | 1 | | | | | 1 | | | 1 | |
| 76 | | | | | | 1 | | 1 | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 77 | | | | | | 1 | | 1 | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 78 | | | | | | 1 | | 1 | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 79 | | | | | | 1 | | | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 80 | | | | | | 1 | | | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 81 | | | | | | 1 | | | | | | 1 | | | | 1 | | | 1 | | | | 1 | | | | | |
| 82 | | | | | | 1 | | | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 83 | | | | | | 1 | | | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 84 | | | | | | 1 | | | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 85 | | | | | | | | 1 | | | | | 1 | | | 1 | | | 1 | | | | 1 | | | | | |
| 86 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 87 | | | | | | | | 1 | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 88 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 89 | | | | | | | | 1 | | | | 1 | | | | 1 | | | 1 | | | | 1 | | | | 1 | |
| 90 | | | | | | | | 1 | | | | 1 | | | | 1 | | | 1 | | | | 1 | | | | | |
| 91 | | | | | | | | 1 | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 92 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 93 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 94 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 95 | | | | | | | | 1 | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 96 | | | | | | 1 | | 1 | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 97 | | | | | | | | 1 | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 98 | | | | | | | | 1 | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 99 | | | | | | 1 | | 1 | | | | | | | | | 1 | | | 1 | | | 1 | | | | | |
| 100 | | | | | | 1 | | | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 101 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 102 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | 1 | | | | | |
| 103 | | | | | | | | | | | | | | | | | 1 | | | 1 | | | 1 | | | | 1 | |
| 104 | | | | | | | | | | | | | | | | | 1 | | | 1 | | | 1 | | | | 1 | |
| 105 | | | | | | | | | | | | | | | | | 1 | | | 1 | | | 1 | | | | 1 | |
| 106 | | | | | | | | | | | | | | | | | 1 | | | 1 | | | 1 | | | | 1 | |
| 107 | | | | | | | | | | | | | | | | | 1 | | | 1 | | | 1 | | | | 1 | |
| 108 | | | | | | | | | | | | | | | | | 1 | | | 1 | | | 1 | | | | 1 | |
| 109 | | | | | | | | | | | | | | | | | 1 | | | 1 | | | 1 | | | | 1 | |
| 110 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 111 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 112 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 113 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 114 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 115 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 116 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 117 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 118 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 119 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Totals | 19 | 1 | 22 | 3 | 1 | 35 | 2 | 28 | 8 | 4 | 3 | 9 | 7 | 2 | 8 | 39 | 45 | 24 | 40 | 11 | 3 | 1 | 61 | 0 | 17 | 20 | 1 | 17 |
| Total Class Cover: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Native | | | | | | | | | | | | | | | | | | | 70.83333 | | | | | | | | | |
| non-native | | | | | | | | | | | | | | | | | | | 53.33333 | | | | | | | | | |
| no vegetation | | | | | | | | | | | | | | | | | | | 9.166667 | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|-------------|--------------------|-----------------------|--------------------|-----------------|------------------|---------------------|---------------|------------------|------------------|---------------------------|------------------------|---------------------|--------------------|-----------|---------------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|-----|-------|------------------|--|
| Transect Number: 1A | | Vegetation species | | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Cyperus sp. | Conyza bonariensis | Euthamia occidentalis | Ludwigia peploides | Mellilotus alba | non-native grass | Plantago lanceolata | Polygonum sp. | Raphanus sativus | Ricinus communis | Salix gooddingii-seedling | Salix gooddingii-shrub | Scirpus californica | Solanum americanum | Typha sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | trash | ungROUTED riprap | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
|---------------------|------------------------|-----------------------|-----------------------|---------------------|------------------------|-------------------|----------------------|----------------|--------------|--------------------|---------------------|----------------|---------------|------------------|---------------------------|------------------------------|----------------------|-------------------|-------------------------|------------------|---------------------|---------------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------|------------------|--|--|--|
| Transect Number: 1B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pt | Amaranthus retroflexus | Ambrosia psilostachya | Baccharis salicifolia | Cyperus dactyloides | Echinochloa crus-galli | Eclipta prostrata | Lepidium perfoliatum | Melilotus alba | native grass | Paspalum dilatatum | Plantago lanceolata | Pennisetum sp. | Polygonum sp. | Raphanus sativus | Salix gooddingii-seedling | Salix gooddingii-mature tree | Scirpus californicus | Sonchus oleraceus | Sporobolus sp. (native) | Washingtonia sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungrouted riprap | | | |
| 232 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 233 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 234 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 235 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Totals | 1 | 5 | 4 | 63 | 17 | 11 | 3 | 5 | 13 | 3 | 1 | 1 | 27 | 2 | 1 | 21 | 6 | 5 | 3 | 1 | 14 | 33 | 70 | 36 | 96 | 0 | 106 | 36 | 0 | 1 | 25 | 67 | 0 | | | |
| | | | | | | | | | | | | | | | | | | | | | | Total Class Cover: | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | Native | | | | 29.3617 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | non-native | | | | 45.10638 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | no vegetation | | | | 40.85106 | | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | |
|---------------------|--------------------|---------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 1C | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | polygonum sp. | Scirpus californica | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 1 | | | | | | | 1 | | | | | 1 | | | | | |
| 2 | | | | | | | 1 | | | | | 1 | | | | | |
| 3 | | | | | | | 1 | | | | | 1 | | | | | |
| 4 | | | | | | | 1 | | | | | 1 | | | | | |
| 5 | | | | | | | 1 | | | | | 1 | | | | | |
| 6 | | | | | | | 1 | | | | | 1 | | | | | |
| 7 | | | | | | | 1 | | | | | 1 | | | | | |
| 8 | | | | | | | 1 | | | | | 1 | | | | | |
| 9 | | | | | | | 1 | | | | | 1 | | | | | |
| 10 | | | | | | | 1 | | | | | 1 | | | | | |
| 11 | | | | | | | 1 | | | | | 1 | | | | | |
| 12 | | | | | | | 1 | | | | | 1 | | | | | |
| 13 | | | | | | | 1 | | | | | 1 | | | | | |
| 14 | | | | | | | 1 | | | | | 1 | | | | | |
| 15 | | | | | | | 1 | | | | | 1 | | | | | |
| 16 | | | | | | | 1 | | | | | 1 | | | | | |
| 17 | | | | | | | 1 | | | | | 1 | | | | | |
| 18 | | | | | | | 1 | | | | | 1 | | | | | |
| 19 | | | | | | | 1 | | | | | 1 | | | | | |
| 20 | | | | | | | 1 | | | | | 1 | | | | | |
| 21 | | | | | | | 1 | | | | | 1 | | | | | |
| 22 | | | | | | | 1 | | | | | 1 | | | | | |
| 23 | | | | | | | 1 | | | | | 1 | | | | | |
| 24 | | | | | | | 1 | | | | | 1 | | | | | |
| 25 | | | | | | | 1 | | | | | 1 | | | | | |
| 26 | | | | | | | 1 | | | | | 1 | | | | | |
| 27 | | | | | | | 1 | | | | | 1 | | | | | |
| 28 | | | | | | | 1 | | | | | 1 | | | | | |
| 29 | | | | | | | 1 | | | | | 1 | | | | | |
| 30 | | | | | | | 1 | | | | | 1 | | | | | |
| 31 | | | | | | | 1 | | | | | 1 | | | | | |
| 32 | | | | | | | 1 | | | | | 1 | | | | | |
| 33 | | | | | | | 1 | | | | | 1 | | | | | |
| 34 | | | | | | | 1 | | | | | 1 | | | | | |
| 35 | | | | | | | 1 | | | | | 1 | | | | | |
| 36 | | | | | | | 1 | | | | | 1 | | | | | |
| 37 | | | | | | | 1 | | | | | 1 | | | | | |
| 38 | | | | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | |
|---------------------|--------------------|---------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|
| Transect Number: 1C | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Polygonum sp. | Scirpus californica | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | |
| 39 | | | | | | | 1 | | | | | 1 | | | |
| 40 | | | | | | | 1 | | | | | 1 | | | |
| 41 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 42 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 43 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 44 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 45 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 46 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 47 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 48 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 49 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 50 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 51 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 52 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 53 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 54 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 55 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 56 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 57 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 58 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 59 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 60 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 61 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 62 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 63 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 64 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 65 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 66 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 67 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 68 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 69 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 70 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 71 | | | | | | | 1 | | | | | 1 | | | |
| 72 | | | | | | | 1 | | | | | 1 | | | |
| 73 | | | | | | | 1 | | | | | 1 | | | |
| 74 | | | | | | | 1 | | | | | 1 | | | |
| 75 | | | | | | | 1 | | | | | 1 | | | |
| 76 | | | | | | | 1 | | | | | 1 | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | |
|---------------------|--------------------|---------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 1C | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Polygonum sp. | Scirpus californica | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 77 | | | | | | | 1 | | | | | 1 | | | | | |
| 78 | | | | | | | 1 | | | | | 1 | | | | | |
| 79 | | | | | | | 1 | | | | | 1 | | | | | |
| 80 | | | | | | | 1 | | | | | 1 | | | | | |
| 81 | | | | | | | 1 | | | | | 1 | | | | | |
| 82 | | | | | | | 1 | | | | | 1 | | | | | |
| 83 | | | | | | | 1 | | | | | 1 | | | | | |
| 84 | | | | | | | 1 | | | | | 1 | | | | | |
| 85 | | | | | | | 1 | | | | | 1 | | | | | |
| 86 | | | | | | | 1 | | | | | 1 | | | | | |
| 87 | | | | | | | 1 | | | | | 1 | | | | | |
| 88 | | | | | | | 1 | | | | | 1 | | | | | |
| 89 | | | | | | | 1 | | | | | 1 | | | | | |
| 90 | | | | | | | 1 | | | | | 1 | | | | | |
| 91 | | | | | | | 1 | | | | | 1 | | | | | |
| 92 | | | | | | | 1 | | | | | 1 | | | | | |
| 93 | | | | | | | 1 | | | | | 1 | | | | | |
| 94 | | | | | | | 1 | | | | | 1 | | | | | |
| 95 | | | | | | | 1 | | | | | 1 | | | | | |
| 96 | | | | | | | 1 | | | | | 1 | | | | | |
| 97 | | | | | | | 1 | | | | | 1 | | | | | |
| 98 | | | | | | | 1 | | | | | 1 | | | | | |
| 99 | | | | | | | 1 | | | | | 1 | | | | | |
| 100 | | | | | | | 1 | | | | | 1 | | | | | |
| 101 | | | | | | | 1 | | | | | 1 | | | | | |
| 102 | | | | | | | 1 | | | | | 1 | | | | | |
| 103 | | | | | | | 1 | | | | | 1 | | | | | |
| 104 | | | | | | | 1 | | | | | 1 | | | | | |
| 105 | | | | | | | 1 | | | | | 1 | | | | | |
| 106 | | | | | | | 1 | | | | | 1 | | | | | |
| 107 | | | | | | | 1 | | | | | 1 | | | | | |
| 108 | | | | | | | 1 | | | | | 1 | | | | | |
| 109 | | | | | | | 1 | | | | | 1 | | | | | |
| 110 | | | | | | | 1 | | | | | 1 | | | | | |
| 111 | | | | | | | 1 | | | | | 1 | | | | | |
| 112 | | | | | | | 1 | | | | | 1 | | | | | |
| 113 | | | | | | | 1 | | | | | 1 | | | | | |
| 114 | | | | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | |
|---------------------|--------------------|---------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|
| Transect Number: 1C | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Polygonum sp. | Scirpus californica | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | |
| 115 | | | | | | | 1 | | | | | 1 | | | |
| 116 | | | | | | | 1 | | | | | 1 | | | |
| 117 | | | | | | | 1 | | | | | 1 | | | |
| 118 | | | | | | | 1 | | | | | 1 | | | |
| 119 | | | | | | | 1 | | | | | 1 | | | |
| 120 | | | | | | | 1 | | | | | 1 | | | |
| 121 | | | | | | | 1 | | | | | 1 | | | |
| 122 | | | | | | | 1 | | | | | 1 | | | |
| 123 | | | | | | | 1 | | | | | 1 | | | |
| 124 | | | | | | | 1 | | | | | 1 | | | |
| 125 | | | | | | | 1 | | | | | 1 | | | |
| 126 | | | | | | | 1 | | | | | 1 | | | |
| 127 | | | | | | | 1 | | | | | 1 | | | |
| 128 | | | | | | | 1 | | | | | 1 | | | |
| 129 | | | | | | | 1 | | | | | 1 | | | |
| 130 | | | | | | | 1 | | | | | 1 | | | |
| 131 | | | | | | | 1 | | | | | 1 | | | |
| 132 | | | | | | | 1 | | | | | 1 | | | |
| 133 | | | | | | | 1 | | | | | 1 | | | |
| 134 | | | | | | | 1 | | | | | 1 | | | |
| 135 | | | | | | | 1 | | | | | 1 | | | |
| 136 | | | | | | | 1 | | | | | 1 | | | |
| 137 | | | | | | | 1 | | | | | 1 | | | |
| 138 | | | | | | | 1 | | | | | 1 | | | |
| 139 | | | | | | | 1 | | | | | 1 | | | |
| 140 | | | | | | | 1 | | | | | 1 | | | |
| 141 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 142 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 143 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 144 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 145 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 146 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 147 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 148 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 149 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 150 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 151 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |
| 152 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | |

| Reach: 25 | | | | | | | | | | | | | | | | |
|---------------------|--------------------|---------------------|-----------|--------------------|------------|----------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 1C | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Polygonum sp. | Scirpus californica | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 153 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 154 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 155 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 156 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 157 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 158 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 159 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 160 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 161 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 162 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 163 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 164 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 165 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 166 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 167 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 168 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 169 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 170 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 171 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 172 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 173 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 174 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 175 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 176 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 177 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 178 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 179 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 180 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 181 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| 182 | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | | |
| Totals | 72 | 72 | 72 | 0 | 0 | 72 | 110 | 0 | 0 | 0 | 0 | 110 | 72 | 0 | | |
| | | | | Total Class Cover: | | | | | | | | | | | | |
| | | | | Native | | 39.56044 | | | | | | | | | | |
| | | | | non-native | | 39.56044 | | | | | | | | | | |
| | | | | no vegetation | | 60.43956 | | | | | | | | | | |

| | | | | | | | | | | | | | | | | |
|---------------------|--------------------|---------------------|-----------|--|-------------|------------|------|----------|--|-----------------------|-------------|-------------|---------------------|-------|-----|----------|
| Reach: 25 | | | | | | | | | | | | | | | | |
| Transect Number: 1C | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | Class Cover | | | | | Ground Cover Material | | | | | | |
| Reading pe | polygonum sp. | Scirpus californica | Typha sp. | | Native | Non-native | Both | No Plant | | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

Total Class Cover Percent Average for 25-2A,B, and C:

| | |
|---------------|----------|
| Native | 19.37667 |
| non-native | 34.41 |
| no vegetation | 51.67667 |

| Vegetation species | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
|--------------------|-----------------------|------------------------|--------------------|-------------------|------------------|------------|-----------------------------|------------------|------------------|-------------------|-----------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------------------|
| Reading pe | Ambrosia psilostachya | Eurthamia occidentalis | Foeniculum vulgare | Helianthus annuus | non-native grass | ornamental | Phragmites australis-native | Raphanus sativus | Ricinus communis | Sonchus oleraceus | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | ungROUTED riprap |
| 50 | | 1 | | | 1 | | 1 | | | | | | | 1 | | | | 1 | | | | |
| 51 | 1 | 1 | | | | | | | | | | 1 | | | | | | 1 | | | | |
| 52 | | 1 | | | | | | | | | | | | 1 | | | | 1 | | | | |
| 53 | 1 | | 1 | | | 1 | | | | | | | | 1 | | | | 1 | | | | |
| 54 | 1 | | 1 | | | 1 | | | | | | | | 1 | | | | 1 | | | | |
| 55 | | | 1 | | | 1 | | | | | | | 1 | | | | | 1 | | | | |
| 56 | | | 1 | | | 1 | | | | | | | 1 | | | | | 1 | | | | |
| 57 | 1 | | 1 | | | 1 | | | | | | | | 1 | | | | 1 | | | | |
| 58 | | | 1 | | | 1 | | | | | | | 1 | | | | | 1 | | | | |
| 59 | 1 | | 1 | | | 1 | | | | | | | | 1 | | | | 1 | | | | |
| 60 | 1 | | | | | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 61 | | | 1 | | | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 62 | | | | | | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 63 | | | | | | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 64 | | | | | | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 65 | | | | | | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 66 | | | | | | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 67 | | | | | | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 68 | | | | | | | | 1 | | 1 | | | | 1 | | | | 1 | | | | |
| 69 | | | | | | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 70 | | | | | | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 71 | | | | | | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 72 | | | | | | | | 1 | | | | | | 1 | | | | 1 | | | | |
| 73 | | | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 74 | | | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 75 | | | | | | | | 1 | 1 | | | | | 1 | | | | 1 | | | | |
| 76 | | | | 1 | 1 | | | | | | | | | | 1 | | | 1 | | | | |
| 77 | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | | 1 |
| 78 | | | | | | | | 1 | | | | | | 1 | | | | | | | | 1 |
| 79 | | | | | | | | 1 | | | | | | 1 | | | | | | | | 1 |
| 80 | | | | | | | | 1 | | | | | | 1 | | | | | | | | 1 |
| 81 | | | | | | | | 1 | | | | | | 1 | | | | | | | | 1 |
| 82 | | | | | | | | 1 | | | | | | 1 | | | | | | | | 1 |
| 83 | | | | | | | | 1 | | | | | | 1 | | | | | | | | 1 |
| 84 | | | | | | | | 1 | | | | | | 1 | | | | | | | | 1 |
| 85 | | | | | | | | | | | | | | | 1 | | | | | | | 1 |
| Totals | 7 | 28 | 8 | 2 | 12 | 1 | 3 | 22 | 1 | 1 | 27 | 32 | 25 | 10 | 18 | 0 | 0 | 33 | 0 | 10 | 33 | 9 |
| | | | | | | | | | | | | Total Class Cover: | | | | | | | | | | |
| | | | | | | | | | | | | Native | | | | 49.41176 | | | | | | |
| | | | | | | | | | | | | non-native | | | | 41.17647 | | | | | | |
| | | | | | | | | | | | | no vegetation | | | | 21.17647 | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | |
|---------------------|-----------------------|----------------------|-------------|------------------|-------------------|---------------|--|---------------------|---------------|------------------|---------------|-------------------|------------------|---------------------|--------|------------|------|-----------------------|------------|-------------|-------------|---------------------|-------|-----|------|------------------|-------|-----------------|--|
| Transect Number: 2B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pt | Baccharis salicifolia | Cotula coronopifolia | Cyperus sp. | Cynodon dactylon | Helianthus annuus | Meibomia alba | non-native grass (Lolium sp. and Echinochola crus-galli) | Plantago lanceolata | Polygonum sp. | Ricinus communis | Rumex crispus | Sonchus oleraceus | Washingtonia sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | metal pipe | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | concrete/asphalt | trash | ungouted riprap | |
| 1 | | | 1 | | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 2 | | | 1 | | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 3 | | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| 4 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| 5 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 6 | | | | 1 | | | 1 | | | | | | | | | | | 1 | | | | | | | | | | | |
| 7 | | | | 1 | | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | |
| 8 | | | | 1 | | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | |
| 9 | | | | 1 | | | | | 1 | | | | | | | | | 1 | | | | | | | | | | | |
| 10 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 11 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 12 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 13 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 14 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 15 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 16 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 17 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 18 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 19 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 20 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 21 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 22 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 23 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 24 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 25 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 26 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 27 | | | | 1 | | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| 28 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 29 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 30 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 31 | | | | 1 | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 32 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 33 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 34 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 35 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 37 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 38 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 39 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 40 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 41 | | | | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 43 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 44 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 45 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 48 | | | | 1 | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 49 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 50 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 51 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 53 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 54 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 55 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 56 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 57 | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
|---------------------|-----------------------|----------------------|-------------|------------------|-------------------|----------------|--|---------------------|---------------|------------------|---------------|-------------------|------------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------|------------------|-------|-----------------|---|
| Transect Number: 2B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pt | Baccharis salicifolia | Cotula coronopifolia | Cyperus sp. | Cynodon dactylon | Helianthus annuus | Melilotus alba | non-native grass (Lolium sp. and Echinochola crus-galli) | Plantago lanceolata | Polygonum sp. | Ricinus communis | Rumex crispus | Sonchus oleraceus | Washingtonia sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | metal pipe | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | concrete/asphalt | trash | ungouted riprap | |
| 172 | | | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 173 | | | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 174 | | | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 175 | | | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 176 | | | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 177 | | | | | 1 | 1 | | | | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 178 | | | | | 1 | 1 | | | | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 179 | | | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 180 | | | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 181 | | | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 182 | | | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 183 | | | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 184 | | | | | | | | | | 1 | 1 | | | | 1 | | | | | | 1 | | | | | | | | |
| 185 | | | | | | | | | | 1 | | | | | 1 | | | | | | 1 | | | | | | | | |
| 186 | | | | | | | | | | 1 | | | | | 1 | | | | | | 1 | | | | | | | | |
| 187 | | | | | | 1 | | | | 1 | | | | | 1 | | | | | | 1 | | | | | | | | |
| 188 | | | | | | 1 | | | | 1 | | | | | 1 | | | | | | | | | | | | | | 1 |
| 189 | | | | | | 1 | | | | 1 | | | | | 1 | | | | | | | | | | | | | | 1 |
| 190 | | | | | | 1 | | | | 1 | | | | | 1 | | | | | | | | | | | | | | 1 |
| 191 | | | | | | 1 | | | | 1 | | | | | 1 | | | | | | | | | | | | | | 1 |
| 192 | | | | | | 1 | | | | 1 | | | | | 1 | | | | | | | | | | | | | | 1 |
| 193 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 |
| 194 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 |
| 195 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 |
| Totals | 1 | 1 | | 86 | 2 | 49 | 11 | 3 | 8 | 11 | 3 | 0 | 1 | 15 | 8 | 112 | 9 | 66 | 1 | 13 | 58 | 0 | 0 | 23 | 83 | 8 | 1 | 8 | |
| Total Class Cover: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Native | | | | | | | | | | | | | | | 8.717949 | | | | | | | | | | | | | | |
| non-native | | | | | | | | | | | | | | | 62.05128 | | | | | | | | | | | | | | |
| no vegetation | | | | | | | | | | | | | | | 33.84615 | | | | | | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | | |
|---------------------|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|
| Transect Number: 2C | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | |
| 1 | | | | | 1 | | | | | 1 | | | |
| 2 | | | | | 1 | | | | | 1 | | | |
| 3 | | | | | 1 | | | | | 1 | | | |
| 4 | | | | | 1 | | | | | 1 | | | |
| 5 | | | | | 1 | | | | | 1 | | | |
| 6 | | | | | 1 | | | | | 1 | | | |
| 7 | | | | | 1 | | | | | 1 | | | |
| 8 | | | | | 1 | | | | | 1 | | | |
| 9 | | | | | 1 | | | | | 1 | | | |
| 10 | | | | | 1 | | | | | 1 | | | |
| 11 | | | | | 1 | | | | | 1 | | | |
| 12 | | | | | 1 | | | | | 1 | | | |
| 13 | | | | | 1 | | | | | 1 | | | |
| 14 | | | | | 1 | | | | | 1 | | | |
| 15 | | | | | 1 | | | | | 1 | | | |
| 16 | | | | | 1 | | | | | 1 | | | |
| 17 | | | | | 1 | | | | | 1 | | | |
| 18 | | | | | 1 | | | | | 1 | | | |
| 19 | | | | | 1 | | | | | 1 | | | |
| 20 | | | | | 1 | | | | | 1 | | | |
| 21 | | | | | 1 | | | | | 1 | | | |
| 22 | | | | | 1 | | | | | 1 | | | |
| 23 | | | | | 1 | | | | | 1 | | | |
| 24 | | | | | 1 | | | | | 1 | | | |
| 25 | | | | | 1 | | | | | 1 | | | |
| 26 | | | | | 1 | | | | | 1 | | | |
| 27 | | | | | 1 | | | | | 1 | | | |
| 28 | | | | | 1 | | | | | 1 | | | |
| 29 | | | | | 1 | | | | | 1 | | | |
| 30 | | | | | 1 | | | | | 1 | | | |
| 31 | | | | | 1 | | | | | 1 | | | |
| 32 | | | | | 1 | | | | | 1 | | | |
| 33 | | | | | 1 | | | | | 1 | | | |
| 34 | | | | | 1 | | | | | 1 | | | |
| 35 | | | | | 1 | | | | | 1 | | | |
| 36 | | | | | 1 | | | | | 1 | | | |
| 37 | | | | | 1 | | | | | 1 | | | |
| 38 | | | | | 1 | | | | | 1 | | | |

| | | | | | | | | | | | | | | | | | | | |
|---------------------|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|--|--|--|--|
| Reach: 25 | | | | | | | | | | | | | | | | | | | |
| Transect Number: 2C | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | | | | | |
| 39 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 40 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 41 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 42 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 43 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 44 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 45 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 46 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 47 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 48 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 49 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 50 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 51 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 52 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 53 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 54 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 55 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 56 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 57 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 58 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 59 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 60 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 61 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 62 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 63 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 64 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 65 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 66 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 67 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 68 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 69 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 70 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 71 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 72 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 73 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 74 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 75 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 76 | | | | | 1 | | | | | 1 | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 2C | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 77 | | | | | 1 | | | | | 1 | | | | |
| 78 | | | | | 1 | | | | | 1 | | | | |
| 79 | | | | | 1 | | | | | 1 | | | | |
| 80 | | | | | 1 | | | | | 1 | | | | |
| 81 | | | | | 1 | | | | | 1 | | | | |
| 82 | | | | | 1 | | | | | 1 | | | | |
| 83 | | | | | 1 | | | | | 1 | | | | |
| 84 | | | | | 1 | | | | | 1 | | | | |
| 85 | | | | | 1 | | | | | 1 | | | | |
| 86 | | | | | 1 | | | | | 1 | | | | |
| 87 | | | | | 1 | | | | | 1 | | | | |
| 88 | | | | | 1 | | | | | 1 | | | | |
| 89 | | | | | 1 | | | | | 1 | | | | |
| 90 | | | | | 1 | | | | | 1 | | | | |
| 91 | | | | | 1 | | | | | 1 | | | | |
| 92 | | | | | 1 | | | | | 1 | | | | |
| 93 | | | | | 1 | | | | | 1 | | | | |
| 94 | | | | | 1 | | | | | 1 | | | | |
| 95 | | | | | 1 | | | | | 1 | | | | |
| 96 | | | | | 1 | | | | | 1 | | | | |
| 97 | | | | | 1 | | | | | 1 | | | | |
| 98 | | | | | 1 | | | | | 1 | | | | |
| 99 | | | | | 1 | | | | | 1 | | | | |
| 100 | | | | | 1 | | | | | 1 | | | | |
| 101 | | | | | 1 | | | | | 1 | | | | |
| 102 | | | | | 1 | | | | | 1 | | | | |
| 103 | | | | | 1 | | | | | 1 | | | | |
| 104 | | | | | 1 | | | | | 1 | | | | |
| 105 | | | | | 1 | | | | | 1 | | | | |
| 106 | | | | | 1 | | | | | 1 | | | | |
| 107 | | | | | 1 | | | | | 1 | | | | |
| 108 | | | | | 1 | | | | | 1 | | | | |
| 109 | | | | | 1 | | | | | 1 | | | | |
| 110 | | | | | 1 | | | | | 1 | | | | |
| 111 | | | | | 1 | | | | | 1 | | | | |
| 112 | | | | | 1 | | | | | 1 | | | | |
| 113 | | | | | 1 | | | | | 1 | | | | |
| 114 | | | | | 1 | | | | | 1 | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 2C | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 115 | | | | | 1 | | | | | 1 | | | | |
| 116 | | | | | 1 | | | | | 1 | | | | |
| 117 | | | | | 1 | | | | | 1 | | | | |
| 118 | | | | | 1 | | | | | 1 | | | | |
| 119 | | | | | 1 | | | | | 1 | | | | |
| 120 | | | | | 1 | | | | | 1 | | | | |
| 121 | | | | | 1 | | | | | 1 | | | | |
| 122 | | | | | 1 | | | | | 1 | | | | |
| 123 | | | | | 1 | | | | | 1 | | | | |
| 124 | | | | | 1 | | | | | 1 | | | | |
| 125 | | | | | 1 | | | | | 1 | | | | |
| 126 | | | | | 1 | | | | | 1 | | | | |
| 127 | | | | | 1 | | | | | 1 | | | | |
| 128 | | | | | 1 | | | | | 1 | | | | |
| 129 | | | | | 1 | | | | | 1 | | | | |
| 130 | | | | | 1 | | | | | 1 | | | | |
| 131 | | | | | 1 | | | | | 1 | | | | |
| 132 | | | | | 1 | | | | | 1 | | | | |
| 133 | | | | | 1 | | | | | 1 | | | | |
| 134 | | | | | 1 | | | | | 1 | | | | |
| 135 | | | | | 1 | | | | | 1 | | | | |
| 136 | | | | | 1 | | | | | 1 | | | | |
| 137 | | | | | 1 | | | | | 1 | | | | |
| 138 | | | | | 1 | | | | | 1 | | | | |
| 139 | | | | | 1 | | | | | 1 | | | | |
| 140 | | | | | 1 | | | | | 1 | | | | |
| 141 | | | | | 1 | | | | | 1 | | | | |
| 142 | | | | | 1 | | | | | 1 | | | | |
| 143 | | | | | 1 | | | | | 1 | | | | |
| 144 | | | | | 1 | | | | | 1 | | | | |
| 145 | | | | | 1 | | | | | 1 | | | | |
| 146 | | | | | 1 | | | | | 1 | | | | |
| 147 | | | | | 1 | | | | | 1 | | | | |
| 148 | | | | | 1 | | | | | 1 | | | | |
| 149 | | | | | 1 | | | | | 1 | | | | |
| 150 | | | | | 1 | | | | | 1 | | | | |
| 151 | | | | | 1 | | | | | 1 | | | | |
| 152 | | | | | 1 | | | | | 1 | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | |
|---------------------|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|--|--|--|--|
| Transect Number: 2C | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | | | | | |
| 153 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 154 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 155 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 156 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 157 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 158 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 159 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 160 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 161 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 162 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 163 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 164 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 165 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 166 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 167 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 168 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 169 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 170 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 171 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 172 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 173 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 174 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 175 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 176 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 177 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 178 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 179 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 180 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 181 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 182 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 183 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 184 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 185 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 186 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 187 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 188 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 189 | | | | | 1 | | | | | 1 | | | | | | | | | |
| 190 | | | | | 1 | | | | | 1 | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 2C | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 191 | | | | | 1 | | | | | 1 | | | | |
| 192 | | | | | 1 | | | | | 1 | | | | |
| 193 | | | | | 1 | | | | | 1 | | | | |
| 194 | | | | | 1 | | | | | 1 | | | | |
| 195 | | | | | 1 | | | | | 1 | | | | |
| 196 | | | | | 1 | | | | | 1 | | | | |
| 197 | | | | | 1 | | | | | 1 | | | | |
| 198 | | | | | 1 | | | | | 1 | | | | |
| 199 | | | | | 1 | | | | | 1 | | | | |
| 200 | | | | | 1 | | | | | 1 | | | | |
| 201 | | | | | 1 | | | | | 1 | | | | |
| 202 | | | | | 1 | | | | | 1 | | | | |
| 203 | | | | | 1 | | | | | 1 | | | | |
| 204 | | | | | 1 | | | | | 1 | | | | |
| 205 | | | | | 1 | | | | | 1 | | | | |
| 206 | | | | | 1 | | | | | 1 | | | | |
| 207 | | | | | 1 | | | | | 1 | | | | |
| 208 | | | | | 1 | | | | | 1 | | | | |
| 209 | | | | | 1 | | | | | 1 | | | | |
| 210 | | | | | 1 | | | | | 1 | | | | |
| 211 | | | | | 1 | | | | | 1 | | | | |
| 212 | | | | | 1 | | | | | 1 | | | | |
| 213 | | | | | 1 | | | | | 1 | | | | |
| 214 | | | | | 1 | | | | | 1 | | | | |
| 215 | | | | | 1 | | | | | 1 | | | | |
| 216 | | | | | 1 | | | | | 1 | | | | |
| 217 | | | | | 1 | | | | | 1 | | | | |
| 218 | | | | | 1 | | | | | 1 | | | | |
| 219 | | | | | 1 | | | | | 1 | | | | |
| 220 | | | | | 1 | | | | | 1 | | | | |
| 221 | | | | | 1 | | | | | 1 | | | | |
| 222 | | | | | 1 | | | | | 1 | | | | |
| 223 | | | | | 1 | | | | | 1 | | | | |
| 224 | | | | | 1 | | | | | 1 | | | | |
| 225 | | | | | 1 | | | | | 1 | | | | |
| 226 | | | | | 1 | | | | | 1 | | | | |
| 227 | | | | | 1 | | | | | 1 | | | | |
| 228 | | | | | 1 | | | | | 1 | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | |
|---------------------|---|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|--|--|--|
| Transect Number: 2C | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | | | | |
| 229 | | | | | 1 | | | | | 1 | | | | | | | | |
| 230 | | | | | 1 | | | | | 1 | | | | | | | | |
| 231 | | | | | 1 | | | | | 1 | | | | | | | | |
| 232 | | | | | 1 | | | | | 1 | | | | | | | | |
| 233 | | | | | 1 | | | | | 1 | | | | | | | | |
| 234 | | | | | 1 | | | | | 1 | | | | | | | | |
| 235 | | | | | 1 | | | | | 1 | | | | | | | | |
| 236 | | | | | 1 | | | | | 1 | | | | | | | | |
| 237 | | | | | 1 | | | | | 1 | | | | | | | | |
| 238 | | | | | 1 | | | | | 1 | | | | | | | | |
| 239 | | | | | 1 | | | | | 1 | | | | | | | | |
| 240 | | | | | 1 | | | | | 1 | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 240 | 0 | 0 | 0 | 0 | 240 | 0 | 0 | | | | | | |
| | | Total Class Cover: | | | | | | | | | | | | | | | | |
| | | Native | | | 0 | | | | | | | | | | | | | |
| | | non-native | | | 0 | | | | | | | | | | | | | |
| | | no vegetation | | | 100 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

Total Class Cover Percent Average for 25-3A,B, and C:

| | |
|---------------|----------|
| Native | 25.63667 |
| non-native | 54.00667 |
| no vegetation | 34.58 |

| Reach: 25 | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|------------------------|-----------------------|-----------------------|------------------|---------------|------------------|--------------------|-------------------|---------------------|--------|------------|-------------|----------|------|-------------|-----------------------|---------------------|-------|-----|------------------|---|--|--|--|--|
| Transect Number: 3A | | Vegetation species | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Amaranthus retroflexus | Ambrosia psilostachya | Euthamia occidentalis | non-native grass | Polygonum sp. | Raphanus sativus | Solanum americanum | Sonchus oleraceus | Xanthium strumarium | | | | | | | | | | | | | | | | |
| | | | | | | | | | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | ungrouted riprap | | | | | |
| 1 | | | 1 | | 1 | | | | | | | 1 | | | | | | 1 | | | | | | | |
| 2 | | | | | 1 | | | | 1 | | | 1 | | | | | | | | 1 | | | | | |
| 3 | 1 | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | |
| 4 | 1 | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | |
| 5 | 1 | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | |
| 6 | 1 | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | |
| 7 | 1 | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | |
| 8 | 1 | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | |
| 9 | | | | | 1 | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 10 | | | | | 1 | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 11 | | | | | | | 1 | | | | 1 | | | | | | 1 | | | | | | | | |
| 12 | | | | | | | 1 | | | | 1 | | | | | | 1 | | | | | | | | |
| 13 | | | | | | | | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 14 | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 15 | | | | | 1 | | | | | | 1 | | | | | | 1 | | | | | | | | |
| 16 | | | | | 1 | | 1 | | | | 1 | | | | | | 1 | | | | | | | | |
| 17 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | | | |
| 18 | | | | | 1 | | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 19 | | | | | 1 | | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 20 | | | | | 1 | | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 21 | | | | | 1 | | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 22 | | | | | 1 | | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 23 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 24 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 25 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 26 | | | | | 1 | | 1 | | | | | | 1 | | | | 1 | | | | | | | | |
| 27 | | | | | 1 | | 1 | | | | | | 1 | | | | 1 | | | | | | | | |
| 28 | | | | | 1 | | 1 | | | | | | 1 | | | | 1 | | | | | | | | |
| 29 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 30 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 31 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 32 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 33 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 34 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 35 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 36 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 37 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 38 | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | |
| 39 | | | | | | | 1 | | | | | | | 1 | | | 1 | | | | | | | | |
| 40 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 41 | | | | | 1 | | | | | | | | | 1 | | | 1 | | | | | | | | |
| 42 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | | |
| 43 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | | |

| Vegetation species | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
|--------------------|------------------------|-----------------------|-----------------------|------------------|---------------|------------------|--------------------|-------------------|---------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------------------|
| Reading pe | Amaranthus retroflexus | Ambrosia psilostachya | Euthamia occidentalis | non-native grass | Polygonum sp. | Raphanus sativus | Solanum americanum | Sonchus oleraceus | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | ungrouted riprap |
| 44 | | | | | | 1 | | | | | 1 | | | | | 1 | | | | |
| 45 | | | | | | 1 | | | | | 1 | | | | | 1 | | | | |
| 46 | | | | | | 1 | | | | | 1 | | | | | 1 | | | | |
| 47 | | | | | | 1 | | | | | 1 | | | | | 1 | | | | |
| 48 | | | | | | 1 | | | | | 1 | | | | | | | | | 1 |
| 49 | | | | | | 1 | | | | | 1 | | | | | | | | | 1 |
| 50 | | | | | | 1 | | | | | 1 | | | | | | | | | 1 |
| 51 | | | | | | 1 | | | | | 1 | | | | | | | | | 1 |
| 52 | | | | | | 1 | | | | | 1 | | | | | | | | | 1 |
| 53 | | | | | | 1 | | | | | 1 | | | | | | | | | 1 |
| 54 | | | | | | | | | | | | | 1 | | | | | | | 1 |
| 55 | | | | | | | | | | | | | 1 | | | | | | | 1 |
| Totals | 6 | 2 | 1 | 29 | 14 | 14 | 7 | 1 | 3 | 3 | 40 | 10 | 2 | 0 | 0 | 39 | 0 | 1 | 7 | 8 |
| | | | | | | | | | | Total Class Cover: | | | | | | | | | | |
| | | | | | | | | | | Native | | | | 23.63636 | | | | | | |
| | | | | | | | | | | non-native | | | | 90.90909 | | | | | | |
| | | | | | | | | | | no vegetation | | | | 3.636364 | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------|-----------------------|-----------------------|-------------------|----------------|--|--------------------|---------------------|---------------|---------------------|-------------|------------|------|----------|-------------|-------------|---------------------|-------|-----|------|------------------|
| Transect Number: 3B | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Aster subulatus | Ambrosia acanthicarpa | Euthamia occidentalis | Helianthus annuus | Melilotus alba | non-native grass (Cynodon dactylon and Echinochola crus-galli) | Phacelia cicutaria | Plantago lanceolata | Polygonum sp. | Xanthium strumarium | Class Cover | | | | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap |
| | | | | | | | | | | | Native | Non-native | Both | No Plant | | | | | | | |
| 39 | | 1 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 40 | | 1 | | | | | | | | | 1 | | | | | | | | 1 | | |
| 41 | | | | | | | | | | | | | | | | | | | 1 | | |
| 42 | | | | | | | | | | | | | | | | | | | 1 | | |
| 43 | | | | | | | | | | | | | | | | | | | 1 | | |
| 44 | | | | | | | | | | | | | | | | | | | 1 | | |
| 45 | | | | | | | 1 | | | | 1 | | | | | | | | 1 | | |
| 46 | | | | | | | | | | 1 | 1 | | | | | | | | 1 | | |
| 47 | | | | | | | | | | 1 | 1 | | | | | | | | 1 | | |
| 48 | | | | | 1 | 1 | | | | 1 | | | 1 | | | | | | 1 | | |
| 49 | | | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 50 | | | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 51 | | | | | 1 | | | | | 1 | | | 1 | | | 1 | | | | | |
| 52 | | | | | 1 | | | | | | | 1 | | | 1 | | | | | | |
| 53 | | | | | 1 | | | | | | | 1 | | | 1 | | | | | | |
| 54 | | | | | 1 | | | | | | | 1 | | | 1 | | | | | | |
| 55 | | | | | 1 | | | | | | | 1 | | | 1 | | | | | | |
| 56 | | | | | 1 | | | | | | | 1 | | | 1 | | | | | | |
| 57 | | | | | 1 | | | | | 1 | | | 1 | | 1 | | | | | | |
| 58 | | | | | 1 | | | | | 1 | | | | | 1 | | | | | | |
| 59 | | | | | 1 | | | | | 1 | | | | | 1 | | | | | | |
| 60 | | | | | 1 | | | | | 1 | | | | | 1 | | | | | | |
| 61 | | | | | 1 | | | | | 1 | | | | | 1 | | | | 1 | | |
| 62 | | | | | 1 | | | | | 1 | | | | | 1 | | | | | | |
| 63 | | | | | | 1 | | | | | | 1 | | | | | | | 1 | | |
| 64 | | | | | 1 | 1 | | | | | | 1 | | | 1 | | | | | | |
| 65 | | | | | 1 | 1 | | | | | | 1 | | | 1 | | | | | | |
| 66 | | | | | 1 | 1 | | | | | | 1 | | | 1 | | | | | | |
| 67 | | | | | 1 | 1 | | | | | | 1 | | | | | | | 1 | | |
| 68 | | | 1 | | | | | 1 | | | | | 1 | | 1 | | | | | | |
| 69 | | 1 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 70 | | 1 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 71 | | 1 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 72 | | 1 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 73 | | 1 | | | | | | | | | | 1 | | | 1 | | | | | | |
| 74 | | | | | | 1 | | | | | | | 1 | | 1 | | | | | | |
| 75 | | | | | | 1 | | | | | | | 1 | | 1 | | | | | | |
| 76 | | | | | | 1 | | | | | | | 1 | | 1 | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------|-----------------------|-----------------------|-------------------|----------------|--|--------------------|---------------------|---------------|---------------------|-------------|------|----------|-------------|-------------|---------------------|-------|-----|------|------------------|--|--|--|
| Transect Number: 3B | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Aster subulatus | Ambrosia acanthicarpa | Euthamia occidentalis | Helianthus annuus | Melilotus alba | non-native grass (Cynodon dactylon and Echinochola crus-galli) | Phacelia cicutaria | Plantago lanceolata | Polygonum sp. | Xanthium strumarium | Class Cover | | | | | | | | | | | | |
| | | | | | | | | | | Native | Non-native | Both | No Plant | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap | | | |
| 77 | | | | | 1 | | | | | | | | | | | | | | | | | | |
| 78 | | | | | | | | | 1 | | 1 | | | | | 1 | | | | | | | |
| 79 | | | | 1 | | | | | | | | | 1 | | | 1 | | | | | | | |
| 80 | | | | 1 | | | | | | | | | | | | 1 | | | | | | | |
| 81 | | 1 | | | | 1 | | | | | | | | | | | | | | 1 | | | |
| 82 | | | | | 1 | | | | | | | | | | | 1 | | | | | | | |
| 83 | | | | | 1 | | | | | | | | | | | 1 | | | | | | | |
| 84 | | | | | 1 | | | | | | | | | | | 1 | | | | | | | |
| 85 | | | | | 1 | | | | | | | | | | | 1 | | | | | | | |
| 86 | | | | | 1 | | | | | | | | | | | 1 | | | | | | | |
| 87 | | | | | 1 | | | | | | | | | | | 1 | | | | | | | |
| 88 | | | | | | | | | | 1 | | | | | | | | | | 1 | | | |
| 89 | | | | | | | | | | 1 | | | | | | | | | | 1 | | | |
| 90 | | | | | 1 | | | | | | | 1 | | | | | | | | 1 | | | |
| 91 | | | | | 1 | | | | | | | 1 | | | | | | | | 1 | | | |
| 92 | | | | | | | | | | 1 | | | | | | | | | | 1 | | | |
| 93 | | | | | 1 | | | | | 1 | | | 1 | | | | | | | 1 | | | |
| 94 | | | | | 1 | | | | | | | 1 | | | | 1 | | | | | | | |
| 95 | | | | | 1 | | | | | | | 1 | | | | 1 | | | | | | | |
| 96 | | | | | 1 | 1 | | | | | | 1 | | | | 1 | | | | | | | |
| 97 | | | | | 1 | 1 | | | | | | 1 | | | | 1 | | | | | | | |
| 98 | | | | | | 1 | | | | 1 | | | 1 | | | | | | | 1 | | | |
| 99 | | | | | | | | | | 1 | | | | | | | | | | 1 | | | |
| 100 | | 1 | | | | | | | | 1 | | | | | 1 | | | | | | | | |
| 101 | | | | | | | | | | 1 | | | | | | | | | | | | | |
| 102 | | | | | 1 | | | | | 1 | | | | | | 1 | | | | | | | |
| 103 | | | 1 | | | 1 | | | | | | | | | | 1 | | | | | | | |
| 104 | | | | | | 1 | | | | | | | | | | | | | | 1 | | | |
| 105 | | | | | | 1 | | | | | | 1 | | | | | | | | 1 | | | |
| 106 | | | | | | 1 | | | | 1 | | | | | | | | | | 1 | | | |
| 107 | | | | | | 1 | | | | 1 | | | | | | | | | | 1 | | | |
| 108 | | | | | | 1 | | | | | | | | | | | | | | 1 | | | |
| 109 | | | | | | 1 | | | | | | | | | | | | | | 1 | | | |
| 110 | | | | | | 1 | | | | 1 | | | | | | | | | | 1 | | | |
| 111 | | | | | | 1 | | | | | | | | | | | | | | 1 | | | |
| 112 | | | | | | 1 | | | | | | | | | | | | | | 1 | | | |
| 113 | | | | | | 1 | | | | | | | | | | | | | | 1 | | | |
| 114 | | | | | | 1 | | | | | | | | | | | | | | 1 | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------|-----------------------|-----------------------|-------------------|----------------|--|--------------------|---------------------|---------------|---------------------|--------|--------------------|------|----------|-------------|-------------|---------------------|-------|-----|------|------------------|--|
| Transect Number: 3B | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | | | | | | | | | | | | Class Cover | | | | | | | | | | |
| | Aster subulatus | Ambrosia acanthicarpa | Euthamia occidentalis | Helianthus annuus | Melilotus alba | non-native grass (Cynodon dactylon and Echinochola crus-galli) | Phacelia cicutaria | Plantago lanceolata | Polygonum sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap | |
| 153 | | | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 154 | | | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 155 | | | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 156 | | | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 157 | | | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 158 | | | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 159 | | | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 160 | | | | | | | | | | | | | 1 | | | | | | | | 1 | |
| Totals | 1 | 25 | 14 | 2 | 60 | 53 | 1 | 1 | 2 | 36 | 40 | 69 | 34 | 17 | 1 | 56 | 0 | 0 | 9 | 79 | 15 | |
| | | | | | | | | | | | | Total Class Cover: | | | | | | | | | | |
| | | | | | | | | | | | | Native | | | | | | | | | | |
| | | | | | | | | | | | | non-native | | | | | | | | | | |
| | | | | | | | | | | | | no vegetation | | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | |
|---------------------|------------------------|-----------------------|------------------|---------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 3C | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Amaranthus retroflexus | Euthamia occidentalis | non-native grass | Polygonum sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 1 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 2 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 3 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 4 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 5 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 6 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 7 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 8 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 9 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 10 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 11 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 12 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 13 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 14 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 15 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 16 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 17 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 18 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 19 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 20 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 21 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 22 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 23 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 24 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 25 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 26 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 27 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 28 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 29 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 30 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 31 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 32 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 33 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 34 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 35 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 36 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 37 | | | | | | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | |
|---------------------|------------------------|-----------------------|------------------|---------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 3C | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Amaranthus retroflexus | Euthamia occidentalis | non-native grass | Polygonum sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 38 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 39 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 40 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 41 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 42 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 43 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 44 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 45 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 46 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 47 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 48 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 49 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 50 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 51 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 52 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 53 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 54 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 55 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 56 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 57 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 58 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 59 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 60 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 61 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 62 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 63 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 64 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 65 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 66 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 67 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 68 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 69 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 70 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 71 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 72 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 73 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 74 | | | | | | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | |
|---------------------|------------------------|-----------------------|------------------|---------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 3C | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading pe | Amaranthus retroflexus | Euthamia occidentalis | non-native grass | Polygonum sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 75 | | | | | | | | | 1 | | | | | 1 | | | | |
| 76 | | | | | | | | | 1 | | | | | 1 | | | | |
| 77 | | | | | | | | | 1 | | | | | 1 | | | | |
| 78 | | | | | | | | | 1 | | | | | 1 | | | | |
| 79 | | | | | | | | | 1 | | | | | 1 | | | | |
| 80 | | | | | | | | | 1 | | | | | 1 | | | | |
| 81 | | | | | | | | | 1 | | | | | 1 | | | | |
| 82 | | | | | | | | | 1 | | | | | 1 | | | | |
| 83 | | | | | | | | | 1 | | | | | 1 | | | | |
| 84 | | | | | | | | | 1 | | | | | 1 | | | | |
| 85 | | | | | | | | | 1 | | | | | 1 | | | | |
| 86 | | | | | | | | | 1 | | | | | 1 | | | | |
| 87 | | | | | | | | | 1 | | | | | 1 | | | | |
| 88 | | | | | | | | | 1 | | | | | 1 | | | | |
| 89 | | | | | | | | | 1 | | | | | 1 | | | | |
| 90 | | | | | | | | | 1 | | | | | 1 | | | | |
| 91 | | | | | | | | | 1 | | | | | 1 | | | | |
| 92 | | | | | | | | | 1 | | | | | 1 | | | | |
| 93 | | | | | | | | | 1 | | | | | 1 | | | | |
| 94 | | | | | | | | | 1 | | | | | 1 | | | | |
| 95 | | | | | | | | | 1 | | | | | 1 | | | | |
| 96 | | | | | | | | | 1 | | | | | 1 | | | | |
| 97 | | | | | | | | | 1 | | | | | 1 | | | | |
| 98 | | | | | | | | | 1 | | | | | 1 | | | | |
| 99 | | | | | | | | | 1 | | | | | 1 | | | | |
| 100 | | | | | | | | | 1 | | | | | 1 | | | | |
| 101 | | | | | | | | | 1 | | | | | 1 | | | | |
| 102 | | | | | | | | | 1 | | | | | 1 | | | | |
| 103 | | | | | | | | | 1 | | | | | 1 | | | | |
| 104 | | | | | | | | | 1 | | | | | 1 | | | | |
| 105 | | | | | | | | | 1 | | | | | 1 | | | | |
| 106 | | | | | | | | | 1 | | | | | 1 | | | | |
| 107 | | | | | | | | | 1 | | | | | 1 | | | | |
| 108 | | | | | | | | | 1 | | | | | 1 | | | | |
| 109 | | | | | | | | | 1 | | | | | 1 | | | | |
| 110 | | | | | | | | | 1 | | | | | 1 | | | | |
| 111 | | | | | | | | | 1 | | | | | 1 | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | |
|---------------------|------------------------|-----------------------|------------------|---------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 3C | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Amaranthus retroflexus | Euthamia occidentalis | non-native grass | Polygonum sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 112 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 113 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 114 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 115 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 116 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 117 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 118 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 119 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 120 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 121 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 122 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 123 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 124 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 125 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 126 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 127 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 128 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 129 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 130 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 131 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 132 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 133 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 134 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 135 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 136 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 137 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 138 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 139 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 140 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 141 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 142 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 143 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 144 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 145 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 146 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 147 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 148 | | | | | | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | |
|---------------------|------------------------|-----------------------|------------------|---------------|---------------------|--------|-------------|------|----------|------|-----------------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 3C | | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading pe | Amaranthus retroflexus | Euthamia occidentalis | non-native grass | Polygonum sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 149 | | | | | | | | | 1 | | | | | 1 | | | | |
| 150 | | | | | | | | | 1 | | | | | 1 | | | | |
| 151 | | | | | | | | | 1 | | | | | 1 | | | | |
| 152 | | | | | | | | | 1 | | | | | 1 | | | | |
| 153 | | | | | | | | | 1 | | | | | 1 | | | | |
| 154 | | | | | | | | | 1 | | | | | 1 | | | | |
| 155 | | | | | | | | | 1 | | | | | 1 | | | | |
| 156 | | | | | | | | | 1 | | | | | 1 | | | | |
| 157 | | | | | | | | | 1 | | | | | 1 | | | | |
| 158 | | | | | | | | | 1 | | | | | 1 | | | | |
| 159 | | | | | | | | | 1 | | | | | 1 | | | | |
| 160 | | | | | | | | | 1 | | | | | 1 | | | | |
| 161 | | | | | | | | | 1 | | | | | 1 | | | | |
| 162 | | | | | | | | | 1 | | | | | 1 | | | | |
| 163 | | | | | | | | | 1 | | | | | 1 | | | | |
| 164 | | | | | | | | | 1 | | | | | 1 | | | | |
| 165 | | | | | | | | | 1 | | | | | 1 | | | | |
| 166 | | | | | | | | | 1 | | | | | 1 | | | | |
| 167 | | | | | | | | | 1 | | | | | 1 | | | | |
| 168 | | | | | | | | | 1 | | | | | 1 | | | | |
| 169 | | | | | | | | | 1 | | | | | 1 | | | | |
| 170 | | | | | | | | | 1 | | | | | 1 | | | | |
| 171 | | | | | | | | | 1 | | | | | 1 | | | | |
| 172 | | | | | | | | | 1 | | | | | 1 | | | | |
| 173 | | | | | | | | | 1 | | | | | 1 | | | | |
| 174 | | | | | | | | | 1 | | | | | 1 | | | | |
| 175 | | | | | | | | | 1 | | | | | 1 | | | | |
| 176 | | | | | | | | | 1 | | | | | 1 | | | | |
| 177 | | | | | | | | | 1 | | | | | 1 | | | | |
| 178 | | | | | | | | | 1 | | | | | 1 | | | | |
| 179 | | | | | | | | | 1 | | | | | 1 | | | | |
| 180 | | | | | | | | | 1 | | | | | 1 | | | | |
| 181 | | | | | | | | | 1 | | | | | 1 | | | | |
| 182 | | | | | | | | | 1 | | | | | 1 | | | | |
| 183 | | | | | | | | | 1 | | | | | 1 | | | | |
| 184 | | | | | | | | | 1 | | | | | 1 | | | | |
| 185 | | | | | | | | | 1 | | | | | 1 | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | |
|---------------------|------------------------|-----------------------|------------------|---------------|---------------------|--------|-------------|------|----------|------|-----------------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 3C | | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading pe | Amaranthus retroflexus | Euthamia occidentalis | non-native grass | Polygonum sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 186 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 187 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 188 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 189 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 190 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 191 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 192 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 193 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 194 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 195 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 196 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 197 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 198 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 199 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 200 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 201 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 202 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 203 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 204 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 205 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 206 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 207 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 208 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 209 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 210 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 211 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 212 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 213 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 214 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 215 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 216 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 217 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 218 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 219 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 220 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 221 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 222 | | | | | | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | |
|---------------------|------------------------|-----------------------|------------------|---------------|---------------------|--------|-------------|------|----------|------|-----------------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 3C | | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading pe | Amaranthus retroflexus | Euthamia occidentalis | non-native grass | Polygonum sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 223 | | | | | | | | | 1 | | | | | 1 | | | | |
| 224 | | | | | | | | | 1 | | | | | 1 | | | | |
| 225 | | | | | | | | | 1 | | | | | 1 | | | | |
| 226 | | | | | | | | | 1 | | | | | 1 | | | | |
| 227 | | | | | | | | | 1 | | | | | 1 | | | | |
| 228 | | | | | | | | | 1 | | | | | 1 | | | | |
| 229 | | | | | | | | | 1 | | | | | 1 | | | | |
| 230 | | | | | | | | | 1 | | | | | 1 | | | | |
| 231 | | | | | | | | | 1 | | | | | 1 | | | | |
| 232 | | | | | | | | | 1 | | | | | 1 | | | | |
| 233 | | | | | | | | | 1 | | | | | 1 | | | | |
| 234 | | | | | | | | | 1 | | | | | 1 | | | | |
| 235 | | | | | | | | | 1 | | | | | 1 | | | | |
| 236 | | | | | | | | | 1 | | | | | 1 | | | | |
| 237 | | | | | | | | | 1 | | | | | 1 | | | | |
| 238 | | | | | | | | | 1 | | | | | 1 | | | | |
| 239 | | | | | | | | | 1 | | | | | 1 | | | | |
| 240 | | | | | | | | | 1 | | | | | 1 | | | | |
| 241 | | | | | | | | | 1 | | | | | 1 | | | | |
| 242 | | | | | | | | | 1 | | | | | 1 | | | | |
| 243 | | | | | | | | | 1 | | | | | 1 | | | | |
| 244 | | | | | | | | | 1 | | | | | 1 | | | | |
| 245 | | | | | | | | | 1 | | | | | 1 | | | | |
| 246 | | | | | | | | | 1 | | | | | 1 | | | | |
| 247 | | | | | | | | | 1 | | | | | 1 | | | | |
| 248 | | | | | | | | | 1 | | | | | 1 | | | | |
| 249 | | | | | | | | | 1 | | | | | 1 | | | | |
| 250 | | | | | | | | | 1 | | | | | 1 | | | | |
| 251 | | | | | | | | | 1 | | | | | 1 | | | | |
| 252 | | | | | | | | | 1 | | | | | 1 | | | | |
| 253 | | | | | | | | | 1 | | | | | 1 | | | | |
| 254 | | | | | | | | | 1 | | | | | 1 | | | | |
| 255 | | | | | | | | | 1 | | | | | 1 | | | | |
| 256 | | | | | | | | | 1 | | | | | 1 | | | | |
| 257 | | | | | | | | | 1 | | | | | 1 | | | | |
| 258 | | | | | | | | | 1 | | | | | 1 | | | | |
| 259 | | | | | | | | | 1 | | | | | 1 | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | |
|---------------------|------------------------|-----------------------|------------------|---------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 3C | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Amaranthus retroflexus | Euthamia occidentalis | non-native grass | Polygonum sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 260 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 261 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 262 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 263 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 264 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 265 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 266 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 267 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 268 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 269 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 270 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 271 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 272 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 273 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 274 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 275 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 276 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 277 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 278 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 279 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 280 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 281 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 282 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 283 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 284 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 285 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 286 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 287 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 288 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 289 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 290 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 291 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 292 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 293 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 294 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 295 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 296 | | | | | | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | |
|---------------------|------------------------|-----------------------|------------------|---------------|---------------------|--------|-------------|------|----------|------|-----------------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 3C | | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading pe | Amaranthus retroflexus | Euthamia occidentalis | non-native grass | Polygonum sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 297 | | | | | | | | | 1 | | | | | 1 | | | | |
| 298 | | | | | | | | | 1 | | | | | 1 | | | | |
| 299 | | | | | | | | | 1 | | | | | 1 | | | | |
| 300 | | | | | | | | | 1 | | | | | 1 | | | | |
| 301 | | | | | | | | | 1 | | | | | 1 | | | | |
| 302 | | | | | | | | | 1 | | | | | 1 | | | | |
| 303 | | | | | | | | | 1 | | | | | 1 | | | | |
| 304 | | | | | | | | | 1 | | | | | 1 | | | | |
| 305 | | | | | | | | | 1 | | | | | 1 | | | | |
| 306 | | | | | | | | | 1 | | | | | 1 | | | | |
| 307 | | | | | 1 | | 1 | | | | | | | 1 | | | | |
| 308 | | | 1 | 1 | | | | 1 | | | | | | 1 | | | | |
| 309 | 1 | | | | | | 1 | | | | | | | 1 | | | | |
| 310 | 1 | | | | | | 1 | | | | | | | 1 | | | | |
| 311 | 1 | | | | | | 1 | | | | | | | 1 | | | | |
| 312 | | 1 | 1 | | | | | | 1 | | | | | 1 | | | | |
| 313 | | | | 1 | | | | 1 | | | | | | 1 | | | | |
| 314 | | | | 1 | | | | 1 | | | | | | 1 | | | | |
| 315 | | 1 | | | | | 1 | | | | | | | 1 | | | | |
| 316 | | | | | 1 | | 1 | | | | | | | 1 | | | | |
| 317 | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 318 | | 1 | | | | | | | 1 | | | | | 1 | | | | |
| 319 | 1 | | | | | | 1 | | | | | | | 1 | | | | |
| 320 | 1 | | | 1 | | | | | 1 | | | | | 1 | | | | |
| 321 | | | 1 | | | | | 1 | | | | | | 1 | | | | |
| 322 | | | 1 | 1 | | | | 1 | | | | | | 1 | | | | |
| 323 | | 1 | 1 | | | | | | 1 | | | | | 1 | | | | |
| 324 | | | | 1 | | | | 1 | | | | | | 1 | | | | |
| 325 | | 1 | | | | | 1 | | | | | | | 1 | | | | |
| 326 | | | | 1 | | | | 1 | | | | | | 1 | | | | |
| 327 | 1 | | | | | | 1 | | | | | | | | | 1 | | |
| 328 | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 329 | | 1 | | 1 | | | | | 1 | | | | | | | 1 | | |
| 330 | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 331 | | | | 1 | 1 | | | | 1 | | | | | | | 1 | | |
| 332 | | | 1 | | | | | 1 | | | | | | | | 1 | | |
| 333 | 1 | | | 1 | | | | | 1 | | | | | | | 1 | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | |
|---------------------|------------------------|-----------------------|------------------|---------------|---------------------|--------------------|------------|----------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|---|
| Transect Number: 3C | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading pe | Amaranthus retroflexus | Euthamia occidentalis | non-native grass | Polygonum sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 334 | | | 1 | | | | 1 | | | | | | | | | | | 1 |
| 335 | | 1 | | | | 1 | | | | | | | | | | | | 1 |
| 336 | | | | 1 | | | 1 | | | | | | | | | | | 1 |
| 337 | | | 1 | | 1 | | | 1 | | | | | | | | | | 1 |
| 338 | 1 | 1 | | | | 1 | | | | | | | | | | | | 1 |
| 339 | | 1 | 1 | | | | | 1 | | | | | | | | | | 1 |
| 340 | 1 | | 1 | | | | | 1 | | | | | | | | | | 1 |
| 341 | | | | 1 | | | 1 | | | | | | | | | | | 1 |
| 342 | | | 1 | | | | 1 | | | | | | | | | | | 1 |
| Totals | 9 | 11 | 12 | 12 | 7 | 13 | 12 | 11 | 306 | 0 | 0 | 0 | 0 | 326 | 16 | 0 | | |
| | | | | | | Total Class Cover: | | | | | | | | | | | | |
| | | | | | | Native | | 7.017544 | | | | | | | | | | |
| | | | | | | non-native | | 6.725146 | | | | | | | | | | |
| | | | | | | no vegetation | | 89.47368 | | | | | | | | | | |

Total Class Cover Percent Average for 25-4A,B, and C:

| | |
|---------------|----------|
| Native | 44.88667 |
| non-native | 19.11 |
| no vegetation | 40 |

| Reach: 25 | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|-----------------------|---------------------|------------------|------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------------------|
| Transect Number: 4A | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Ambrosia psilostachya | Euthamia occidentalis | Lepidium latifolium | non-native grass | Raphanus sativus | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | ungrouted riprap |
| 1 | | | | | | 1 | 1 | | | | | | | | | 1 | |
| 2 | | | | | | 1 | 1 | | | | | | | | | 1 | |
| 3 | | | | | | 1 | 1 | | | | | | | | | 1 | |
| 4 | | | | | | 1 | 1 | | | | | | | | | 1 | |
| 5 | | | | | | 1 | 1 | | | | | | | | | 1 | |
| 6 | | | | | | 1 | 1 | | | | | | | | | 1 | |
| 7 | | | | | | 1 | 1 | | | | | | | | | 1 | |
| 8 | | | | | | 1 | 1 | | | | | | | | | 1 | |
| 9 | | | | | | 1 | 1 | | | | | | | | | 1 | |
| 10 | | | | | | 1 | 1 | | | | | | | | | 1 | |
| 11 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 12 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 13 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 14 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 15 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 16 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 17 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 18 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 19 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 20 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 21 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 22 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 23 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 24 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 25 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 26 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 27 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 28 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 29 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 30 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 31 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 32 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 33 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 34 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 35 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 36 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 37 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 38 | | 1 | | | | | 1 | | | | | | | | | 1 | |

| Reach: 25 | | | | | | | Transect Number: 4A | | | | | | | | | | |
|---------------|-----------------------|-----------------------|---------------------|------------------|------------------|-----------|---------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------------------|
| Reading pe | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Ambrosia psilostachya | Euthamia occidentalis | Lepidium latifolium | non-native grass | Raphanus sativus | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | ungROUTED riprap |
| 39 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 40 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 41 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 42 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 43 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 44 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 45 | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 46 | | 1 | | | | | 1 | | | | | | 1 | | | | |
| 47 | | | 1 | | | | | 1 | | | | | 1 | | | | |
| 48 | | 1 | | | | | 1 | | | | | | 1 | | | | |
| 49 | | 1 | | | 1 | | | | 1 | | | | 1 | | | | |
| 50 | | | | | 1 | | | | 1 | | | | 1 | | | | |
| 51 | | | | | 1 | | | | 1 | | | | 1 | | | | |
| 52 | | | | | 1 | | | | 1 | | | | 1 | | | | |
| 53 | | | | | 1 | | | | 1 | | | | 1 | | | | |
| 54 | | | | | 1 | | | | 1 | | | | 1 | | | | |
| 55 | | | 1 | | 1 | | | | 1 | | | | 1 | | | | |
| 56 | | | 1 | | 1 | | | | 1 | | | | 1 | | | | |
| 57 | 1 | | 1 | | | | | | 1 | | | | 1 | | | | |
| 58 | | | | | 1 | | | | 1 | | | | 1 | | | | |
| 59 | | | | | 1 | | | | 1 | | | | 1 | | | | |
| 60 | | | | | 1 | | | | 1 | | | | 1 | | | | |
| 61 | | | | | 1 | | | | 1 | | | | 1 | | | | |
| 62 | | | 1 | | 1 | | | | 1 | | | | 1 | | | | |
| 63 | | | 1 | | 1 | | | | 1 | | | | 1 | | | | |
| 64 | | | 1 | | | 1 | | | 1 | | | | 1 | | | | |
| 65 | | | 1 | | | 1 | | | 1 | | | | 1 | | | | |
| 66 | | | 1 | | | 1 | | | 1 | | | | 1 | | | | |
| 67 | | | 1 | | | 1 | | | 1 | | | | 1 | | | | |
| 68 | | | | | | 1 | | | 1 | | | | 1 | | | | |
| 69 | | | 1 | | | 1 | | | 1 | | | | 1 | | | | |
| 70 | | | 1 | | | | | | 1 | | | | | | | | 1 |
| 71 | | | 1 | | | | | | 1 | | | | | | | | 1 |
| 72 | | | | | | | | | | 1 | | | | | | | 1 |
| 73 | | | | | | | | | | 1 | | | | | | | 1 |
| 74 | | | | | | | | | | 1 | | | | | | | 1 |
| 75 | | | | | | | | | | 1 | | | | | | | 1 |
| Totals | 1 | 38 | 13 | 14 | 6 | 10 | 47 | 22 | 2 | 4 | 0 | 0 | 24 | 0 | 0 | 45 | 6 |

| | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|-----------------------|---------------------|------------------|------------------|-----------|--------------------|------------|----------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------------------|--|--|
| Reach: 25 | | | | | | | | | | | | | | | | | | | |
| Transect Number: 4A | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading pe | Ambrosia psilostachya | Euthamia occidentalis | Lepidium latifolium | non-native grass | Raphanus sativus | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | ungrouted riprap | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | Total Class Cover: | | | | | | | | | | | | |
| | | | | | | | Native | | 65.33333 | | | | | | | | | | |
| | | | | | | | non-native | | 32 | | | | | | | | | | |
| | | | | | | | no vegetation | | 5.333333 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|-----------------|-----------------------|-------------------|-----------------------|-------------------|-----------------|---|---------------|------------------|---------------------|-------------------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------|------------------|--|--|
| Transect Number: 4B | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Ambrosia acanthicarpa | Aster subulatus | Atriplex triangularis | Conyza canadensis | Euthamia occidentalis | Helianthus annuus | Mellilotus alba | non-native grass (Echinochola crus-galli) | Polygonum sp. | Raphanus sativus | Scirpus californica | Sporobolus sp. (native) | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap | | |
| 1 | | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | | |
| 2 | | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | | |
| 3 | | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | | |
| 4 | | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | | |
| 5 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 6 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 7 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 8 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 9 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 10 | | | | | | | | 1 | | | | | | 1 | | | | | | | | | 1 | | | | |
| 11 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 12 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 13 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 14 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 15 | | | | | | 1 | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 16 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 17 | | | | | | 1 | | 1 | | | 1 | | | | 1 | | | | | | | | 1 | | | | |
| 18 | | | | | | | | 1 | | | | | | | 1 | | | | | | | | 1 | | | | |
| 19 | | | | | | 1 | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | |
| 20 | | | | | | 1 | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | |
| 21 | | | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | |
| 22 | | | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | |
| 23 | | | | | | | | 1 | | | | 1 | | | 1 | | | | | | | | 1 | | | | |
| 24 | | | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | |
| 25 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 26 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 27 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 28 | | | | | | | | | | | 1 | 1 | 1 | | | | | | | | | | 1 | | 1 | | |
| 29 | | | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | |
| 30 | | | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | |
| 31 | | | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | |
| 32 | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 33 | | | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | | | | |
| 34 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 35 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 36 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 37 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 38 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 39 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 40 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | 1 | | |
| 41 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 42 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 43 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 44 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 45 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | |
| 46 | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | |
| 47 | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | |
| 48 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | | 1 | | | |
| 49 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | | | | | |
| 50 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | | | | | |
| 51 | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | |

| Reach: 25 | | | | | | | | | | | | | | | Transect Number: 4B | | | | | | | | | | | | | | |
|--------------------|-----------------------|-----------------|-----------------------|-------------------|-----------------------|-------------------|----------------|---|---------------|------------------|---------------------|-------------------------|---------------------|--------|---------------------|------|----------|------|-----------------------|-------------|---------------------|-------|-----|------|------------------|--|--|--|--|
| Reading pt | Vegetation species | | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| | Ambrosia acanthicarpa | Aster subulatus | Atriplex triangularis | Conyza canadensis | Euthamia occidentalis | Helianthus annuus | Melilotus alba | non-native grass (Echinochola crus-galli) | Polygonum sp. | Raphanus sativus | Scirpus californica | Sporobolus sp. (native) | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap | | | | |
| 52 | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | |
| 53 | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | |
| 54 | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | |
| 55 | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | |
| 56 | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | |
| 57 | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | |
| 58 | | | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | | | | | |
| 59 | | | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | | | | | |
| 60 | | | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | | | | | |
| 61 | | | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | | | | | |
| 62 | | | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | | | | | |
| 63 | | | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | | | | | |
| 64 | 1 | | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | | | |
| 65 | 1 | | | | | | 1 | | | | | | | | 1 | | | | 1 | | | | | | | | | | |
| 66 | 1 | | | | | | 1 | | | 1 | | | | | 1 | | | | 1 | | | | | | | | | | |
| 67 | | | | | | | | | | 1 | | | | | 1 | | | | 1 | | | | | | | | | | |
| 68 | | | | | | | | | | 1 | | | | | 1 | | | | 1 | | | | | | | | | | |
| 69 | 1 | | | | | | | | | 1 | | | | | 1 | | | | 1 | | | | | | | | | | |
| 70 | | | | | | | | | | 1 | | | | | 1 | | | | 1 | | | | | | | | | | |
| 71 | 1 | | | | | | | | | 1 | | | | | 1 | | | | 1 | | | | | | 1 | | | | |
| 72 | 1 | | | | | | | | | 1 | | | | | 1 | | | | 1 | | | | | | 1 | | | | |
| 73 | 1 | | | | | | | | | 1 | | | | | 1 | | | | 1 | | | | | | 1 | | | | |
| 74 | | | | 1 | | | | | | | | | | 1 | | | | | 1 | | | | | | 1 | | | | |
| 75 | | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | | | | |
| Totals | 7 | 3 | 10 | 1 | 4 | 5 | 9 | 3 | 1 | 6 | 22 | 5 | 10 | 45 | 12 | 7 | 11 | 1 | 0 | 14 | 0 | 4 | 41 | 10 | 5 | | | | |
| Total Class Cover: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Native | | | | | | | | | | | | | | | | | | | 69.33333 | | | | | | | | | | |
| non-native | | | | | | | | | | | | | | | | | | | 25.33333 | | | | | | | | | | |
| no vegetation | | | | | | | | | | | | | | | | | | | 14.66667 | | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| 1 | | | | 1 | | | | | 1 | | | | | |
| 2 | | | | 1 | | | | | 1 | | | | | |
| 3 | | | | 1 | | | | | 1 | | | | | |
| 4 | | | | 1 | | | | | 1 | | | | | |
| 5 | | | | 1 | | | | | 1 | | | | | |
| 6 | | | | 1 | | | | | 1 | | | | | |
| 7 | | | | 1 | | | | | 1 | | | | | |
| 8 | | | | 1 | | | | | 1 | | | | | |
| 9 | | | | 1 | | | | | 1 | | | | | |
| 10 | | | | 1 | | | | | 1 | | | | | |
| 11 | | | | 1 | | | | | 1 | | | | | |
| 12 | | | | 1 | | | | | 1 | | | | | |
| 13 | | | | 1 | | | | | 1 | | | | | |
| 14 | | | | 1 | | | | | 1 | | | | | |
| 15 | | | | 1 | | | | | 1 | | | | | |
| 16 | | | | 1 | | | | | 1 | | | | | |
| 17 | | | | 1 | | | | | 1 | | | | | |
| 18 | | | | 1 | | | | | 1 | | | | | |
| 19 | | | | 1 | | | | | 1 | | | | | |
| 20 | | | | 1 | | | | | 1 | | | | | |
| 21 | | | | 1 | | | | | 1 | | | | | |
| 22 | | | | 1 | | | | | 1 | | | | | |
| 23 | | | | 1 | | | | | 1 | | | | | |
| 24 | | | | 1 | | | | | 1 | | | | | |
| 25 | | | | 1 | | | | | 1 | | | | | |
| 26 | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| 27 | | | | 1 | | | | | 1 | | | | | |
| 28 | | | | 1 | | | | | 1 | | | | | |
| 29 | | | | 1 | | | | | 1 | | | | | |
| 30 | | | | 1 | | | | | 1 | | | | | |
| 31 | | | | 1 | | | | | 1 | | | | | |
| 32 | | | | 1 | | | | | 1 | | | | | |
| 33 | | | | 1 | | | | | 1 | | | | | |
| 34 | | | | 1 | | | | | 1 | | | | | |
| 35 | | | | 1 | | | | | 1 | | | | | |
| 36 | | | | 1 | | | | | 1 | | | | | |
| 37 | | | | 1 | | | | | 1 | | | | | |
| 38 | | | | 1 | | | | | 1 | | | | | |
| 39 | | | | 1 | | | | | 1 | | | | | |
| 40 | | | | 1 | | | | | 1 | | | | | |
| 41 | | | | 1 | | | | | 1 | | | | | |
| 42 | | | | 1 | | | | | 1 | | | | | |
| 43 | | | | 1 | | | | | 1 | | | | | |
| 44 | | | | 1 | | | | | 1 | | | | | |
| 45 | | | | 1 | | | | | 1 | | | | | |
| 46 | | | | 1 | | | | | 1 | | | | | |
| 47 | | | | 1 | | | | | 1 | | | | | |
| 48 | | | | 1 | | | | | 1 | | | | | |
| 49 | | | | 1 | | | | | 1 | | | | | |
| 50 | | | | 1 | | | | | 1 | | | | | |
| 51 | | | | 1 | | | | | 1 | | | | | |
| 52 | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| 53 | | | | 1 | | | | | 1 | | | | | |
| 54 | | | | 1 | | | | | 1 | | | | | |
| 55 | | | | 1 | | | | | 1 | | | | | |
| 56 | | | | 1 | | | | | 1 | | | | | |
| 57 | | | | 1 | | | | | 1 | | | | | |
| 58 | | | | 1 | | | | | 1 | | | | | |
| 59 | | | | 1 | | | | | 1 | | | | | |
| 60 | | | | 1 | | | | | 1 | | | | | |
| 61 | | | | 1 | | | | | 1 | | | | | |
| 62 | | | | 1 | | | | | 1 | | | | | |
| 63 | | | | 1 | | | | | 1 | | | | | |
| 64 | | | | 1 | | | | | 1 | | | | | |
| 65 | | | | 1 | | | | | 1 | | | | | |
| 66 | | | | 1 | | | | | 1 | | | | | |
| 67 | | | | 1 | | | | | 1 | | | | | |
| 68 | | | | 1 | | | | | 1 | | | | | |
| 69 | | | | 1 | | | | | 1 | | | | | |
| 70 | | | | 1 | | | | | 1 | | | | | |
| 71 | | | | 1 | | | | | 1 | | | | | |
| 72 | | | | 1 | | | | | 1 | | | | | |
| 73 | | | | 1 | | | | | 1 | | | | | |
| 74 | | | | 1 | | | | | 1 | | | | | |
| 75 | | | | 1 | | | | | 1 | | | | | |
| 76 | | | | 1 | | | | | 1 | | | | | |
| 77 | | | | 1 | | | | | 1 | | | | | |
| 78 | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| 79 | | | | 1 | | | | | 1 | | | | | |
| 80 | | | | 1 | | | | | 1 | | | | | |
| 81 | | | | 1 | | | | | 1 | | | | | |
| 82 | | | | 1 | | | | | 1 | | | | | |
| 83 | | | | 1 | | | | | 1 | | | | | |
| 84 | | | | 1 | | | | | 1 | | | | | |
| 85 | | | | 1 | | | | | 1 | | | | | |
| 86 | | | | 1 | | | | | 1 | | | | | |
| 87 | | | | 1 | | | | | 1 | | | | | |
| 88 | | | | 1 | | | | | 1 | | | | | |
| 89 | | | | 1 | | | | | 1 | | | | | |
| 90 | | | | 1 | | | | | 1 | | | | | |
| 91 | | | | 1 | | | | | 1 | | | | | |
| 92 | | | | 1 | | | | | 1 | | | | | |
| 93 | | | | 1 | | | | | 1 | | | | | |
| 94 | | | | 1 | | | | | 1 | | | | | |
| 95 | | | | 1 | | | | | 1 | | | | | |
| 96 | | | | 1 | | | | | 1 | | | | | |
| 97 | | | | 1 | | | | | 1 | | | | | |
| 98 | | | | 1 | | | | | 1 | | | | | |
| 99 | | | | 1 | | | | | 1 | | | | | |
| 100 | | | | 1 | | | | | 1 | | | | | |
| 101 | | | | 1 | | | | | 1 | | | | | |
| 102 | | | | 1 | | | | | 1 | | | | | |
| 103 | | | | 1 | | | | | 1 | | | | | |
| 104 | | | | 1 | | | | | 1 | | | | | |

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|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Reach: 25 | | | | | | | | | | | | | | |
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading per foot: | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 105 | | | | 1 | | | | | 1 | | | | | |
| 106 | | | | 1 | | | | | 1 | | | | | |
| 107 | | | | 1 | | | | | 1 | | | | | |
| 108 | | | | 1 | | | | | 1 | | | | | |
| 109 | | | | 1 | | | | | 1 | | | | | |
| 110 | | | | 1 | | | | | 1 | | | | | |
| 111 | | | | 1 | | | | | 1 | | | | | |
| 112 | | | | 1 | | | | | 1 | | | | | |
| 113 | | | | 1 | | | | | 1 | | | | | |
| 114 | | | | 1 | | | | | 1 | | | | | |
| 115 | | | | 1 | | | | | 1 | | | | | |
| 116 | | | | 1 | | | | | 1 | | | | | |
| 117 | | | | 1 | | | | | 1 | | | | | |
| 118 | | | | 1 | | | | | 1 | | | | | |
| 119 | | | | 1 | | | | | 1 | | | | | |
| 120 | | | | 1 | | | | | 1 | | | | | |
| 121 | | | | 1 | | | | | 1 | | | | | |
| 122 | | | | 1 | | | | | 1 | | | | | |
| 123 | | | | 1 | | | | | 1 | | | | | |
| 124 | | | | 1 | | | | | 1 | | | | | |
| 125 | | | | 1 | | | | | 1 | | | | | |
| 126 | | | | 1 | | | | | 1 | | | | | |
| 127 | | | | 1 | | | | | 1 | | | | | |
| 128 | | | | 1 | | | | | 1 | | | | | |
| 129 | | | | 1 | | | | | 1 | | | | | |
| 130 | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| 131 | | | | 1 | | | | | 1 | | | | | |
| 132 | | | | 1 | | | | | 1 | | | | | |
| 133 | | | | 1 | | | | | 1 | | | | | |
| 134 | | | | 1 | | | | | 1 | | | | | |
| 135 | | | | 1 | | | | | 1 | | | | | |
| 136 | | | | 1 | | | | | 1 | | | | | |
| 137 | | | | 1 | | | | | 1 | | | | | |
| 138 | | | | 1 | | | | | 1 | | | | | |
| 139 | | | | 1 | | | | | 1 | | | | | |
| 140 | | | | 1 | | | | | 1 | | | | | |
| 141 | | | | 1 | | | | | 1 | | | | | |
| 142 | | | | 1 | | | | | 1 | | | | | |
| 143 | | | | 1 | | | | | 1 | | | | | |
| 144 | | | | 1 | | | | | 1 | | | | | |
| 145 | | | | 1 | | | | | 1 | | | | | |
| 146 | | | | 1 | | | | | 1 | | | | | |
| 147 | | | | 1 | | | | | 1 | | | | | |
| 148 | | | | 1 | | | | | 1 | | | | | |
| 149 | | | | 1 | | | | | 1 | | | | | |
| 150 | | | | 1 | | | | | 1 | | | | | |
| 151 | | | | 1 | | | | | 1 | | | | | |
| 152 | | | | 1 | | | | | 1 | | | | | |
| 153 | | | | 1 | | | | | 1 | | | | | |
| 154 | | | | 1 | | | | | 1 | | | | | |
| 155 | | | | 1 | | | | | 1 | | | | | |
| 156 | | | | 1 | | | | | 1 | | | | | |

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|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Reach: 25 | | | | | | | | | | | | | | |
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading per foot: | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 157 | | | | 1 | | | | | 1 | | | | | |
| 158 | | | | 1 | | | | | 1 | | | | | |
| 159 | | | | 1 | | | | | 1 | | | | | |
| 160 | | | | 1 | | | | | 1 | | | | | |
| 161 | | | | 1 | | | | | 1 | | | | | |
| 162 | | | | 1 | | | | | 1 | | | | | |
| 163 | | | | 1 | | | | | 1 | | | | | |
| 164 | | | | 1 | | | | | 1 | | | | | |
| 165 | | | | 1 | | | | | 1 | | | | | |
| 166 | | | | 1 | | | | | 1 | | | | | |
| 167 | | | | 1 | | | | | 1 | | | | | |
| 168 | | | | 1 | | | | | 1 | | | | | |
| 169 | | | | 1 | | | | | 1 | | | | | |
| 170 | | | | 1 | | | | | 1 | | | | | |
| 171 | | | | 1 | | | | | 1 | | | | | |
| 172 | | | | 1 | | | | | 1 | | | | | |
| 173 | | | | 1 | | | | | 1 | | | | | |
| 174 | | | | 1 | | | | | 1 | | | | | |
| 175 | | | | 1 | | | | | 1 | | | | | |
| 176 | | | | 1 | | | | | 1 | | | | | |
| 177 | | | | 1 | | | | | 1 | | | | | |
| 178 | | | | 1 | | | | | 1 | | | | | |
| 179 | | | | 1 | | | | | 1 | | | | | |
| 180 | | | | 1 | | | | | 1 | | | | | |
| 181 | | | | 1 | | | | | 1 | | | | | |
| 182 | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| 183 | | | | 1 | | | | | 1 | | | | | |
| 184 | | | | 1 | | | | | 1 | | | | | |
| 185 | | | | 1 | | | | | 1 | | | | | |
| 186 | | | | 1 | | | | | 1 | | | | | |
| 187 | | | | 1 | | | | | 1 | | | | | |
| 188 | | | | 1 | | | | | 1 | | | | | |
| 189 | | | | 1 | | | | | 1 | | | | | |
| 190 | | | | 1 | | | | | 1 | | | | | |
| 191 | | | | 1 | | | | | 1 | | | | | |
| 192 | | | | 1 | | | | | 1 | | | | | |
| 193 | | | | 1 | | | | | 1 | | | | | |
| 194 | | | | 1 | | | | | 1 | | | | | |
| 195 | | | | 1 | | | | | 1 | | | | | |
| 196 | | | | 1 | | | | | 1 | | | | | |
| 197 | | | | 1 | | | | | 1 | | | | | |
| 198 | | | | 1 | | | | | 1 | | | | | |
| 199 | | | | 1 | | | | | 1 | | | | | |
| 200 | | | | 1 | | | | | 1 | | | | | |
| 201 | | | | 1 | | | | | 1 | | | | | |
| 202 | | | | 1 | | | | | 1 | | | | | |
| 203 | | | | 1 | | | | | 1 | | | | | |
| 204 | | | | 1 | | | | | 1 | | | | | |
| 205 | | | | 1 | | | | | 1 | | | | | |
| 206 | | | | 1 | | | | | 1 | | | | | |
| 207 | | | | 1 | | | | | 1 | | | | | |
| 208 | | | | 1 | | | | | 1 | | | | | |

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|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Reach: 25 | | | | | | | | | | | | | | |
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading per foot: | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 209 | | | | 1 | | | | | 1 | | | | | |
| 210 | | | | 1 | | | | | 1 | | | | | |
| 211 | | | | 1 | | | | | 1 | | | | | |
| 212 | | | | 1 | | | | | 1 | | | | | |
| 213 | | | | 1 | | | | | 1 | | | | | |
| 214 | | | | 1 | | | | | 1 | | | | | |
| 215 | | | | 1 | | | | | 1 | | | | | |
| 216 | | | | 1 | | | | | 1 | | | | | |
| 217 | | | | 1 | | | | | 1 | | | | | |
| 218 | | | | 1 | | | | | 1 | | | | | |
| 219 | | | | 1 | | | | | 1 | | | | | |
| 220 | | | | 1 | | | | | 1 | | | | | |
| 221 | | | | 1 | | | | | 1 | | | | | |
| 222 | | | | 1 | | | | | 1 | | | | | |
| 223 | | | | 1 | | | | | 1 | | | | | |
| 224 | | | | 1 | | | | | 1 | | | | | |
| 225 | | | | 1 | | | | | 1 | | | | | |
| 226 | | | | 1 | | | | | 1 | | | | | |
| 227 | | | | 1 | | | | | 1 | | | | | |
| 228 | | | | 1 | | | | | 1 | | | | | |
| 229 | | | | 1 | | | | | 1 | | | | | |
| 230 | | | | 1 | | | | | 1 | | | | | |
| 231 | | | | 1 | | | | | 1 | | | | | |
| 232 | | | | 1 | | | | | 1 | | | | | |
| 233 | | | | 1 | | | | | 1 | | | | | |
| 234 | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| 235 | | | | 1 | | | | | 1 | | | | | |
| 236 | | | | 1 | | | | | 1 | | | | | |
| 237 | | | | 1 | | | | | 1 | | | | | |
| 238 | | | | 1 | | | | | 1 | | | | | |
| 239 | | | | 1 | | | | | 1 | | | | | |
| 240 | | | | 1 | | | | | 1 | | | | | |
| 241 | | | | 1 | | | | | 1 | | | | | |
| 242 | | | | 1 | | | | | 1 | | | | | |
| 243 | | | | 1 | | | | | 1 | | | | | |
| 244 | | | | 1 | | | | | 1 | | | | | |
| 245 | | | | 1 | | | | | 1 | | | | | |
| 246 | | | | 1 | | | | | 1 | | | | | |
| 247 | | | | 1 | | | | | 1 | | | | | |
| 248 | | | | 1 | | | | | 1 | | | | | |
| 249 | | | | 1 | | | | | 1 | | | | | |
| 250 | | | | 1 | | | | | 1 | | | | | |
| 251 | | | | 1 | | | | | 1 | | | | | |
| 252 | | | | 1 | | | | | 1 | | | | | |
| 253 | | | | 1 | | | | | 1 | | | | | |
| 254 | | | | 1 | | | | | 1 | | | | | |
| 255 | | | | 1 | | | | | 1 | | | | | |
| 256 | | | | 1 | | | | | 1 | | | | | |
| 257 | | | | 1 | | | | | 1 | | | | | |
| 258 | | | | 1 | | | | | 1 | | | | | |
| 259 | | | | 1 | | | | | 1 | | | | | |
| 260 | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| 261 | | | | 1 | | | | | 1 | | | | | |
| 262 | | | | 1 | | | | | 1 | | | | | |
| 263 | | | | 1 | | | | | 1 | | | | | |
| 264 | | | | 1 | | | | | 1 | | | | | |
| 265 | | | | 1 | | | | | 1 | | | | | |
| 266 | | | | 1 | | | | | 1 | | | | | |
| 267 | | | | 1 | | | | | 1 | | | | | |
| 268 | | | | 1 | | | | | 1 | | | | | |
| 269 | | | | 1 | | | | | 1 | | | | | |
| 270 | | | | 1 | | | | | 1 | | | | | |
| 271 | | | | 1 | | | | | 1 | | | | | |
| 272 | | | | 1 | | | | | 1 | | | | | |
| 273 | | | | 1 | | | | | 1 | | | | | |
| 274 | | | | 1 | | | | | 1 | | | | | |
| 275 | | | | 1 | | | | | 1 | | | | | |
| 276 | | | | 1 | | | | | 1 | | | | | |
| 277 | | | | 1 | | | | | 1 | | | | | |
| 278 | | | | 1 | | | | | 1 | | | | | |
| 279 | | | | 1 | | | | | 1 | | | | | |
| 280 | | | | 1 | | | | | 1 | | | | | |
| 281 | | | | 1 | | | | | 1 | | | | | |
| 282 | | | | 1 | | | | | 1 | | | | | |
| 283 | | | | 1 | | | | | 1 | | | | | |
| 284 | | | | 1 | | | | | 1 | | | | | |
| 285 | | | | 1 | | | | | 1 | | | | | |
| 286 | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| 287 | | | | 1 | | | | | 1 | | | | | |
| 288 | | | | 1 | | | | | 1 | | | | | |
| 289 | | | | 1 | | | | | 1 | | | | | |
| 290 | | | | 1 | | | | | 1 | | | | | |
| 291 | | | | 1 | | | | | 1 | | | | | |
| 292 | | | | 1 | | | | | 1 | | | | | |
| 293 | | | | 1 | | | | | 1 | | | | | |
| 294 | | | | 1 | | | | | 1 | | | | | |
| 295 | | | | 1 | | | | | 1 | | | | | |
| 296 | | | | 1 | | | | | 1 | | | | | |
| 297 | | | | 1 | | | | | 1 | | | | | |
| 298 | | | | 1 | | | | | 1 | | | | | |
| 299 | | | | 1 | | | | | 1 | | | | | |
| 300 | | | | 1 | | | | | 1 | | | | | |
| 301 | | | | 1 | | | | | 1 | | | | | |
| 302 | | | | 1 | | | | | 1 | | | | | |
| 303 | | | | 1 | | | | | 1 | | | | | |
| 304 | | | | 1 | | | | | 1 | | | | | |
| 305 | | | | 1 | | | | | 1 | | | | | |
| 306 | | | | 1 | | | | | 1 | | | | | |
| 307 | | | | 1 | | | | | 1 | | | | | |
| 308 | | | | 1 | | | | | 1 | | | | | |
| 309 | | | | 1 | | | | | 1 | | | | | |
| 310 | | | | 1 | | | | | 1 | | | | | |
| 311 | | | | 1 | | | | | 1 | | | | | |
| 312 | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| 313 | | | | 1 | | | | | 1 | | | | | |
| 314 | | | | 1 | | | | | 1 | | | | | |
| 315 | | | | 1 | | | | | 1 | | | | | |
| 316 | | | | 1 | | | | | 1 | | | | | |
| 317 | | | | 1 | | | | | 1 | | | | | |
| 318 | | | | 1 | | | | | 1 | | | | | |
| 319 | | | | 1 | | | | | 1 | | | | | |
| 320 | | | | 1 | | | | | 1 | | | | | |
| 321 | | | | 1 | | | | | 1 | | | | | |
| 322 | | | | 1 | | | | | 1 | | | | | |
| 323 | | | | 1 | | | | | 1 | | | | | |
| 324 | | | | 1 | | | | | 1 | | | | | |
| 325 | | | | 1 | | | | | 1 | | | | | |
| 326 | | | | 1 | | | | | 1 | | | | | |
| 327 | | | | 1 | | | | | 1 | | | | | |
| 328 | | | | 1 | | | | | 1 | | | | | |
| 329 | | | | 1 | | | | | 1 | | | | | |
| 330 | | | | 1 | | | | | 1 | | | | | |
| 331 | | | | 1 | | | | | 1 | | | | | |
| 332 | | | | 1 | | | | | 1 | | | | | |
| 333 | | | | 1 | | | | | 1 | | | | | |
| 334 | | | | 1 | | | | | 1 | | | | | |
| 335 | | | | 1 | | | | | 1 | | | | | |
| 336 | | | | 1 | | | | | 1 | | | | | |
| 337 | | | | 1 | | | | | 1 | | | | | |
| 338 | | | | 1 | | | | | 1 | | | | | |

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|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Reach: 25 | | | | | | | | | | | | | | |
| Transect Number: 4C | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading per foot: | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 339 | | | | 1 | | | | | 1 | | | | | |
| 340 | | | | 1 | | | | | 1 | | | | | |
| 341 | | | | 1 | | | | | 1 | | | | | |
| 342 | | | | 1 | | | | | 1 | | | | | |
| 343 | | | | 1 | | | | | 1 | | | | | |
| 344 | | | | 1 | | | | | 1 | | | | | |
| 345 | | | | 1 | | | | | 1 | | | | | |
| 346 | | | | 1 | | | | | 1 | | | | | |
| 347 | | | | 1 | | | | | 1 | | | | | |
| 348 | | | | 1 | | | | | 1 | | | | | |
| 349 | | | | 1 | | | | | 1 | | | | | |
| 350 | | | | 1 | | | | | 1 | | | | | |
| 351 | | | | 1 | | | | | 1 | | | | | |
| 352 | | | | 1 | | | | | 1 | | | | | |
| 353 | | | | 1 | | | | | 1 | | | | | |
| 354 | | | | 1 | | | | | 1 | | | | | |
| 355 | | | | 1 | | | | | 1 | | | | | |
| 356 | | | | 1 | | | | | 1 | | | | | |
| 357 | | | | 1 | | | | | 1 | | | | | |
| 358 | | | | 1 | | | | | 1 | | | | | |
| 359 | | | | 1 | | | | | 1 | | | | | |
| 360 | | | | 1 | | | | | 1 | | | | | |
| 361 | | | | 1 | | | | | 1 | | | | | |
| 362 | | | | 1 | | | | | 1 | | | | | |
| 363 | | | | 1 | | | | | 1 | | | | | |
| 364 | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | |
|---------------------|---|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|--|
| Transect Number: 4C | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | | |
| 365 | | | | | 1 | | | | | 1 | | | | | | |
| 366 | | | | | 1 | | | | | 1 | | | | | | |
| 367 | | | | | 1 | | | | | 1 | | | | | | |
| 368 | | | | | 1 | | | | | 1 | | | | | | |
| 369 | | | | | 1 | | | | | 1 | | | | | | |
| 370 | | | | | 1 | | | | | 1 | | | | | | |
| 371 | | | | | 1 | | | | | 1 | | | | | | |
| 372 | | | | | 1 | | | | | 1 | | | | | | |
| 373 | | | | | 1 | | | | | 1 | | | | | | |
| 374 | | | | | 1 | | | | | 1 | | | | | | |
| 375 | | | | | 1 | | | | | 1 | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 375 | 0 | 0 | 0 | 0 | 375 | 0 | 0 | | | | |
| | | Total Class Cover: | | | | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | | | | |
| | | non-native | | 0 | | | | | | | | | | | | |
| | | no vegetation | | 100 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| Reach: 96 | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|-----------------------|--------------|-----------------------------|----------------------|------------------------------|-----------------|--------------------------|-------------------|--|--------------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|-----|------|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Artemisia douglasiana | Carduus pycnocephalus | Ficus carica | Parthenocissus quinquefolia | Phacelia ramosissima | Rorippa nasturtium-aquaticum | Salix laevigata | Schinus terebinthifolius | Sonchus oleraceus | | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | | |
| 43 | | | | 1 | | | | 1 | | | | | | 1 | | | | 1 | | | | | | |
| 44 | | | | 1 | | | | 1 | | | | | | 1 | | | | 1 | | | | | | |
| 45 | | | | 1 | | | | 1 | | | | | | 1 | | | | | | | 1 | | | |
| 46 | | | | 1 | | | | 1 | | | | | | 1 | | | | | | | 1 | | | |
| 47 | | | | 1 | | | | 1 | | | | | | 1 | | | | 1 | | | | | | |
| 48 | | | | 1 | | | | 1 | | | | | | 1 | | | | 1 | | | | | | |
| 49 | | | | 1 | | | | 1 | | | | | | 1 | | | | 1 | | | | | | |
| 50 | | | | 1 | | | | 1 | | | | | | 1 | | | | 1 | | | | | | |
| 51 | | | | 1 | | | | 1 | | | | | | 1 | 1 | | | | | | | | | |
| 52 | | | | 1 | | | | 1 | | | | | | 1 | 1 | | | | | | | | | |
| 53 | | | | 1 | | | | 1 | | | | | | 1 | 1 | | | | | | | | | |
| 54 | | | | 1 | | | | 1 | | | | | | 1 | | | 1 | | | | | | | |
| 55 | | | | 1 | | | | 1 | | | | | | 1 | 1 | | | | | | | | | |
| Totals | 1 | 5 | 1 | 36 | 0 | 3 | 44 | 2 | 1 | | 8 | 6 | 37 | 4 | 4 | 0 | 31 | 0 | 9 | 5 | 6 | | | |
| | | | | | | | | | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | | | | | | | | | Native | | | | 81.81818 | | | | | | | | | |
| | | | | | | | | | | | non-native | | | | 78.18182 | | | | | | | | | |
| | | | | | | | | | | | no vegetation | | | | 7.272727 | | | | | | | | | |

| Reach: 96 | | | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|-----------------------------|------------------|------------------------------|------------------|-------------------|-----------|---------------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|-----|----------------|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Melilotus alba | Parthenocissus quinquefolia | Picris echioides | Rorippa nasturtium-aquaticum | Salix lasiolepis | Sonchus oleraceus | Typha sp. | Xanthium strumarium | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap |
| 1 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 2 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 3 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 4 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 5 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 6 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 7 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 8 | 1 | | | | | | | | 1 | | | | | | | | | | 1 |
| 9 | 1 | | | | | | | | 1 | | | | | | | | | | 1 |
| 10 | 1 | | | | | | | | 1 | | | | | 1 | | | | | |
| 11 | 1 | | | | | | | | 1 | | | | | 1 | | | | | |
| 12 | 1 | | | | | | | | 1 | | | | | 1 | | | | | |
| 13 | 1 | | | | | | | | 1 | | | | | 1 | | | | | |
| 14 | | 1 | | | 1 | | | | | | 1 | | | 1 | | | | | |
| 15 | | 1 | | | 1 | | | | | | 1 | | | 1 | | | | | |
| 16 | 1 | | | | | | | | 1 | | | | | 1 | | | | | |
| 17 | 1 | | | | | 1 | | | 1 | | | | | 1 | | | | | |
| 18 | 1 | | 1 | | 1 | | | | | | 1 | | | 1 | | | | | |
| 19 | 1 | | | | 1 | 1 | | | | | 1 | | | 1 | | | | | |
| 20 | 1 | | | | | | | | 1 | | | | | 1 | | | | | |
| 21 | 1 | | | | | | | | 1 | | | | | 1 | | | | | |
| 22 | 1 | | | | | | | | 1 | | | | | 1 | | | | | |
| 23 | 1 | | | | | | | | 1 | | | | | 1 | | | | | |
| 24 | 1 | | | 1 | | | 1 | | | | 1 | | | | | 1 | | | |
| 25 | 1 | | | | | | 1 | | | | 1 | | | | | 1 | | | |
| 26 | | | | | | | 1 | | | | 1 | | | | | 1 | | | |
| 27 | | | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 28 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 29 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 30 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 31 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 32 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 33 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 34 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 35 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 36 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 37 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 38 | | | | | | | 1 | 1 | 1 | | | | | | | | | 1 | |
| 39 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 40 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 41 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 42 | | | | | | | 1 | 1 | | | | | | | | | | 1 | |

| Reach: 99 | | | | | | | | | | | | |
|--------------------|--------------|--------------------|------------|----------|----------|-----------------------|-------------|-------------|---------------------|----------|----------|----------|
| Transect Number: 1 | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | |
| Reading pe | Hedera helix | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | concrete |
| 1 | 1 | | 1 | | | | | 1 | | | | |
| 2 | | | | | 1 | | | 1 | | | | |
| 3 | | | | | 1 | | | 1 | | | | |
| 4 | | | | | 1 | | 1 | | | | | |
| 5 | | | | | 1 | | | | | 1 | | |
| 6 | | | | | 1 | | | 1 | | | | |
| 7 | | | | | 1 | | | 1 | | | | |
| 8 | | | | | 1 | | | 1 | | | | |
| 9 | | | | | 1 | | | 1 | | | | |
| 10 | | | | | 1 | | | | | | | 1 |
| Totals | 1 | 0 | 1 | 0 | 9 | 0 | 1 | 7 | 0 | 0 | 1 | 1 |
| | | Total Class Cover: | | | | | | | | | | |
| | | Native | | | 0 | | | | | | | |
| | | non-native | | | 10 | | | | | | | |
| | | no vegetation | | | 90 | | | | | | | |

| Reach: 99 | | | | | | | | | | | | | | | | | | |
|--------------------|---------------------------|---------------------|--------------------------|--------------------|-------------------------|------------------|-------------------------------------|------------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | |
| | <i>Aptenia cordifolia</i> | <i>Arundo donax</i> | <i>Chenopodium album</i> | <i>Cyperus sp.</i> | <i>Nicotiana glauca</i> | non-native grass | <i>Rorippa nasturtium-aquaticum</i> | <i>Rumex maritimus</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud |
| 1 | 1 | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 2 | | | | | | 1 | | | 1 | | | | | 1 | | | | |
| 3 | | | 1 | | | | | | 1 | | | | | 1 | | | | |
| 4 | | | 1 | 1 | | | | | 1 | | | | | 1 | | | | |
| 5 | | 1 | 1 | 1 | | | | | 1 | | | | | | | | | 1 |
| 6 | | | | 1 | | | | | 1 | | | | | | | | | 1 |
| 7 | | 1 | | | | | | | | | 1 | | | | | | | 1 |
| 8 | | 1 | | | | | | | | | 1 | | | | | | 1 | |
| 9 | | 1 | | | | | | | | | 1 | | | | | | 1 | |
| 10 | | 1 | | | | | | | | | 1 | | | | | | | 1 |
| 11 | | | | | | | | | 1 | | | | | 1 | | | | |
| 12 | | | | | | | | | 1 | | | | 1 | | | | | |
| 13 | | | | | | | | | 1 | | | | 1 | | | | | |
| 14 | | | | | 1 | | | | | 1 | | | | | 1 | | | |
| 15 | | | | | 1 | | | | | 1 | | | | | 1 | | | |
| 16 | | | | | 1 | | | | | 1 | | | | | 1 | | | |
| 17 | | | | | | | | | | | | | | | 1 | | | |
| 18 | | | | | | | | | | | | | 1 | | | | | |
| 19 | | | | | | | | | | | | | | | 1 | | | |
| 20 | | | | | | | | | | | | | | | 1 | | | |
| Totals | | 5 | 4 | 3 | 3 | 1 | 3 | 4 | 3 | 9 | 4 | 4 | 3 | 0 | 11 | 0 | 2 | 4 |
| | | | | | | | | | Total Class Cover: | | | | | | | | | |
| | | | | | | | | | Native | | | | 35 | | | | | |
| | | | | | | | | | non-native | | | | 65 | | | | | |
| | | | | | | | | | no vegetation | | | | 20 | | | | | |

| Reach: 99 | | | | | | | | | | | | | | | | | | |
|--------------------|---------------------------|----------------------------|-------------------------------------|--------------------|------------|-----------------------|----------|------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|--|
| Transect Number: 3 | | | | | | | | | | | | | | | | | | |
| | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | |
| Reading pe | <i>Epilobium ciliatum</i> | <i>Polygonum amphibium</i> | <i>Rorippa nasturtium-aquaticum</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | | |
| 1 | | 1 | 1 | | | 1 | | | | | | | 1 | | | | | |
| 2 | 1 | 1 | 1 | | | 1 | | | | | | | 1 | | | | | |
| 3 | | 1 | 1 | | | 1 | | | | | | | 1 | | | | | |
| 4 | | | 1 | 1 | | | | | | | | 1 | | | | | | |
| 5 | | 1 | 1 | | | 1 | | | | | | 1 | | | | | | |
| 6 | | | 1 | 1 | | | | | | | | 1 | | | | | | |
| 7 | | | 1 | 1 | | | | | | | | 1 | | | | | | |
| 8 | | | 1 | 1 | | | | | | | | 1 | | | | | | |
| 9 | | | 1 | 1 | | | | | | | | 1 | | | | | | |
| 10 | | | 1 | 1 | | | | | | | | 1 | | | | | | |
| Totals | 1 | 4 | 10 | 6 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 7 | 3 | 0 | | | | |
| | | | | Total Class Cover: | | | | | | | | | | | | | | |
| | | | | Native | | 100 | | | | | | | | | | | | |
| | | | | non-native | | 40 | | | | | | | | | | | | |
| | | | | no vegetation | | 0 | | | | | | | | | | | | |

| Reach: 100 | | | | | | | | | | | | | | | | | |
|--------------------|--------------|------------------|-----------------------------|------------------|-----------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| Reading pe | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | |
| | Hedera helix | non-native grass | Parthenocissus quinquefolia | Salix gooddingii | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 1 | 1 | | | 1 | | | 1 | | | | 1 | | | | | | |
| 2 | 1 | | | 1 | | | 1 | | | | 1 | | | | | | |
| 3 | 1 | | | 1 | | | 1 | | | | 1 | | | | | | |
| 4 | 1 | | | 1 | | | 1 | | | | 1 | | | | | | |
| 5 | 1 | | | 1 | | | 1 | | | | 1 | | | | | | |
| 6 | 1 | | | 1 | | | 1 | | | | 1 | | | | | | |
| 7 | | | | 1 | 1 | | | | | | 1 | | | | | | |
| 8 | | | | 1 | 1 | | | | 1 | | | | | | | | |
| 9 | | | | 1 | 1 | | | | | | 1 | | | | | | |
| 10 | | | | 1 | 1 | | | | | | 1 | | | | | | |
| 11 | | | | 1 | 1 | | | | | | 1 | | | | | | |
| 12 | | | | 1 | 1 | | | | 1 | | | | | | | | |
| 13 | | | | 1 | 1 | | | | 1 | | | | | | | | |
| 14 | | | | 1 | 1 | | | | 1 | | | | | | | | |
| 15 | | | | 1 | 1 | | | | 1 | | | | | | | | |
| 16 | | | | 1 | 1 | | | | 1 | | | | | | | | |
| 17 | | | | 1 | 1 | | | | | | | | | | 1 | | |
| 18 | | 1 | | 1 | | | 1 | | | | | | | | 1 | | |
| 19 | | | | 1 | 1 | | | | | | | | | | 1 | | |
| 20 | | | | 1 | 1 | | | | | | | | | | 1 | | |
| 21 | | | | 1 | 1 | | | | | | | | | | 1 | | |
| 22 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 23 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 24 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 25 | | | | | | | | 1 | | | | | 1 | | | | |
| 26 | | | | | | | | 1 | | | | | 1 | | | | |
| 27 | | | | | | | | 1 | | | | | 1 | | | | |
| 28 | | | | | | | | 1 | | | | | 1 | | | | |
| 29 | | | | | | | | 1 | | | | | 1 | | | | |
| 30 | | | | | | | | 1 | | | | | 1 | | | | |
| 31 | | | | | | | | 1 | | 1 | | | | | | | |
| 32 | | | 1 | | | 1 | | | | 1 | | | | | | | |
| 33 | | | | | | | | 1 | | 1 | | | | | | | |
| 34 | | | | | | | | 1 | | 1 | | | | | | | |
| 35 | 1 | | | | | 1 | | | | | 1 | | | | | | |
| 36 | 1 | | | | | 1 | | | | | 1 | | | | | | |

E-2

POST-CLEARANCE TRANSECT DATA

| Reach: 1 | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|------------------|---------------------------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|--|
| Transect Number: 1 | | | | | | | | | | | | | | | |
| Vegetation | Vegetation species | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Cyperus sp. | non-native grass | Ricinus communis | Salix lasiolepis cross (Mature trees) | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | |
| 1 | | | | 1 | 1 | | | | | | 1 | | | | |
| 2 | | | | 1 | 1 | | | | | | 1 | | | | |
| 3 | | | | 1 | 1 | | | | | | 1 | | | | |
| 4 | | 1 | 1 | | | 1 | | | | | 1 | | | | |
| 5 | | 1 | | 1 | | | | 1 | | | 1 | | | | |
| 6 | | | 1 | 1 | | | | 1 | | | 1 | | | | |
| 7 | | 1 | | 1 | | | | 1 | | | 1 | | | | |
| 8 | | 1 | | 1 | | | | 1 | | | 1 | | | | |
| 9 | | 1 | | 1 | | | | 1 | | | 1 | | | | |
| 10 | | 1 | | 1 | | | | 1 | | | | 1 | | | |
| 11 | | 1 | | 1 | | | | 1 | | | | 1 | | | |
| 12 | | | | 1 | 1 | | | | | | | 1 | | | |
| 13 | | | | 1 | 1 | | | | | | | 1 | | | |
| 14 | | | | 1 | 1 | | | | | | | 1 | | | |
| 15 | | | | 1 | 1 | | | | | | | 1 | | | |
| 16 | | | | 1 | 1 | | | | | | 1 | | | | |
| 17 | | | | 1 | 1 | | | | | | 1 | | | | |
| 18 | | | | 1 | 1 | | | | | | 1 | | | | |
| 19 | | 1 | | 1 | | | | 1 | | | 1 | | | | |
| 20 | | 1 | | 1 | | | | 1 | | | 1 | | | | |
| 21 | | | | 1 | 1 | | | | | | 1 | | | | |
| 22 | | | | 1 | 1 | | | | | | 1 | | | | |
| 23 | | | | 1 | 1 | | | | | | 1 | | | | |
| 24 | | | | 1 | 1 | | | | | | 1 | | | | |
| 25 | | | | 1 | 1 | | | | | | 1 | | | | |
| 26 | 1 | | | 1 | | | | 1 | | | 1 | | | | |
| 27 | 1 | | | 1 | | | | 1 | | | 1 | | | | |
| 28 | 1 | | | 1 | | | | 1 | | | 1 | | | | |
| 29 | | | | 1 | 1 | | | | | | | | 1 | | |
| 30 | | | | 1 | 1 | | | | | | | | 1 | | |
| 31 | | | | 1 | 1 | | | | | | | | 1 | | |
| 32 | | | | 1 | 1 | | | | | | | | 1 | | |
| 33 | | | | 1 | 1 | | | | | | | | 1 | | |
| 34 | | | | 1 | 1 | | | | | | | | 1 | | |
| 35 | | | | 1 | 1 | | | | | | | | 1 | | |

| Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
|--------------------------|-------------|------------------|------------------|---------------------------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|---|
| Vegetation | Cyperus sp. | non-native grass | Ricinus communis | Salix lasiolepis cross (Mature trees) | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | |
| 36 | | | | 1 | 1 | | | | | | | | 1 | | |
| 37 | | | | 1 | 1 | | | | | | | | 1 | | |
| 38 | | | | 1 | 1 | | | | | | | | 1 | | |
| 39 | | | | 1 | 1 | | | | | | | | 1 | | |
| 40 | | | | 1 | 1 | | | | | | | | 1 | | |
| 41 | | | | 1 | 1 | | | | | | | | | 1 | |
| 42 | | | | 1 | 1 | | | | | | 1 | | | | |
| 43 | | | | 1 | 1 | | | | | | 1 | | | | |
| 44 | | | | 1 | 1 | | | | | | 1 | | | | |
| 45 | | | | 1 | 1 | | | | | | 1 | | | | |
| 46 | | | | 1 | 1 | | | | | | 1 | | | | |
| 47 | | | | 1 | 1 | | | | | | 1 | | | | |
| 48 | | | | 1 | 1 | | | | | | 1 | | | | |
| 49 | | | | 1 | 1 | | | | | | 1 | | | | |
| 50 | 1 | | | 1 | | | 1 | | | | 1 | | | | |
| 51 | | | | 1 | 1 | | | | | | 1 | | | | |
| 52 | | | | 1 | 1 | | | | | | 1 | | | | |
| 53 | | | | 1 | 1 | | | | | | 1 | | | | |
| 54 | | | | 1 | 1 | | | | | | | 1 | | | |
| 55 | | | | 1 | 1 | | | | | | | 1 | | | |
| 56 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 57 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 58 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 59 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 60 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 61 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 62 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 63 | | | | 1 | 1 | | | | | | | 1 | | | |
| 64 | | | | 1 | 1 | | | | | | | 1 | | | |
| 65 | | | | 1 | 1 | | | | | | | 1 | | | |
| Totals | 4 | 16 | 2 | 64 | 44 | 1 | 20 | 0 | 0 | 0 | 41 | 11 | 12 | 1 | 0 |
| Summary | | | | | Percent: | | | | | | | | | | |
| Total Native Class Cover | | | | | 98.46154 | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|------------------|---------------------------------------|------------------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|--|--|--|--|
| Reach: 1 | | | | | | | | | | | | | | | | | | |
| Transect Number: 1 | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Vegetation | Cyperus sp. | non-native grass | Ricinus communis | Salix lasiolepis cross (Mature trees) | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | | | | |
| | | | | | Total Non-native Class Cover | | | 32.30769 | | | | | | | | | | |
| | | | | | Total Unvegetated | | | 0 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

| Reach: 2 | | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|----------------|-----------------------|------------------|----------------------|----------------|----------------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|--|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | | | |
| Vegetation | Artemisia californica | Brassica nigra | Carduus pycnocephalus | non-native grass | Phacelia ramosissima | Plantago major | Toxicodendron diversilobum | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | | | | | | | | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna sp. | | | |
| 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | |
| 2 | 1 | | | | | | | 1 | | | | | | | | | | | | | |
| 3 | 1 | | | | | | | 1 | | | | | | | | | | | | | |
| 4 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 5 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 6 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 7 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 8 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 9 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 10 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 11 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 12 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 13 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 14 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 15 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 16 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 17 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 18 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 19 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 20 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 21 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 22 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 23 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 24 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 25 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 26 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 27 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 28 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 29 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| 30 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 31 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 32 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 33 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 34 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 35 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 36 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 37 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 38 | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| 39 | | | | 1 | | | | | 1 | | | | | | | | | | | | |

| Reach: 2 | | | | | | | | | | Transect Number: 1 | | | | | | | | | |
|------------|-----------------------|----------------|-----------------------|------------------|----------------------|----------------|----------------------------|-------------|------------|--------------------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|--|
| Vegetation | Artemisia californica | Brassica nigra | Carduus pycnocephalus | non-native grass | Phacelia ramosissima | Plantago major | Toxicodendron diversilobum | Class Cover | | | | Ground Cover Material | | | | | | | |
| | | | | | | | | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna sp. | |
| 40 | | | 1 | | | | | | 1 | | | | | 1 | | | | | |
| 41 | | | 1 | | | | | | 1 | | | | | 1 | | | | | |
| 42 | | | 1 | | | | | | 1 | | | | | 1 | | | | | |
| 43 | | | 1 | | | | | | 1 | | | | | 1 | | | | | |
| 44 | | | 1 | | | | | | 1 | | | | | 1 | | | | | |
| 45 | | | 1 | | | | | | 1 | | | | | 1 | | | | | |
| 46 | | | 1 | | | 1 | | | 1 | | | | | 1 | | | | | |
| 47 | | | 1 | | | 1 | | | 1 | | | | | 1 | | | | | |
| 48 | | | 1 | | | 1 | | | 1 | | | | | 1 | | | | | |
| 49 | | | 1 | | | 1 | | | 1 | | | | | 1 | | | | | |
| 50 | | | | | | | 1 | | 1 | | | | | 1 | | | | | |
| 51 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 52 | | | | | | | | | | | | | | 1 | | | | | |
| 53 | | | | | | | | | | | | | | 1 | | | | | |
| 54 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 55 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 56 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 57 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 58 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 59 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 60 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 61 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 62 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 63 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 64 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 65 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 66 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 67 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 68 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 69 | | 1 | | 1 | | | | | | 1 | | | | 1 | | | | | |
| 70 | | | 1 | | | | | | | 1 | | | | 1 | | | | | |
| 71 | | | | | | | | | | | | 1 | | 1 | | | | | |
| 72 | | | | | | | | | | | | 1 | | 1 | | | | | |
| 73 | | 1 | | 1 | | | | | | 1 | | | | 1 | | | | | |
| 74 | | | | | | | | | | | | 1 | | 1 | | | | | |
| 75 | | | | 1 | | | | | | 1 | | | | 1 | | | | | |
| 76 | | | | | 1 | | | | 1 | | | | | 1 | | | | | |
| 77 | | | | | 1 | | | | 1 | | | | | 1 | | | | | |
| 78 | | | | | 1 | | | | 1 | | | | | 1 | | | | | |

| Reach: 2 | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
|--------------------|-----------------------|----------------|-----------------------|------------------|----------------------|----------------|----------------------------|------------------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | |
| Vegetation | Artemisia californica | Brassica nigra | Carduus pycnocephalus | non-native grass | Phacelia ramosissima | Plantago major | Toxicodendron diversilobum | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna sp. |
| 79 | | | | | 1 | | | 1 | | | | | | 1 | | | | |
| 80 | | | 1 | 1 | | | | | 1 | | | | | 1 | | | | |
| 81 | | | 1 | 1 | | | | | 1 | | | | | 1 | | | | |
| 82 | | | 1 | 1 | | | | | 1 | | | | | 1 | | | | |
| 83 | | | 1 | 1 | | | | | 1 | | | | | 1 | | | | |
| 84 | | | 1 | 1 | | | | | 1 | | | | | 1 | | | | |
| 85 | | | | | | | | | | | 1 | | | 1 | | | | |
| Totals | 3 | 2 | 27 | 54 | 4 | 4 | 1 | 8 | 55 | 0 | 22 | 0 | 0 | 74 | 0 | 11 | 0 | 0 |
| | | | | | | | | Summary | | | | Percent: | | | | | | |
| | | | | | | | | Total Native Class Cover | | | | 9.411765 | | | | | | |
| | | | | | | | | Total Non-native Class Cover | | | | 64.70588 | | | | | | |
| | | | | | | | | Total Unvegetated | | | | 25.88235 | | | | | | |

| Reach: 2 | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|-----------------------|------------------|-----------------------|-----------------------|----------------|-----------------------|---------------|-----------------|------------------|-----------------------------|--------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Vegetation | Ambrosia psilostachya | Apium graveolens | Artemisia californica | Artemisia douglasiana | Brassica nigra | Carduus pycnocephalus | Claytonia sp. | Nerium oleander | non-native grass | Salix lasiolepis (saplings) | Tecomaria capensis | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna sp. | concrete |
| 1 | | | | | | | | 1 | | | | 1 | | 1 | | | | | 1 | | | | | |
| 2 | | | | | | | | 1 | | | | 1 | | 1 | | | | | 1 | | | | | |
| 3 | | | | | | | | 1 | | | | 1 | | 1 | | | | | 1 | | | | | |
| 4 | | | | | | | | 1 | | | | 1 | | 1 | | | | | 1 | | | | | |
| 5 | | | | | | | | 1 | | | | 1 | | 1 | | | | | 1 | | | | | |
| 6 | | | | | | | | 1 | | | | 1 | | 1 | | | | | 1 | | | | | |
| 7 | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | |
| 8 | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | |
| 9 | | | | | | | 1 | | 1 | | | | | | 1 | | | | 1 | | | | | |
| 10 | | | | | | | | | 1 | | | | | 1 | | | | | 1 | | | | | |
| 11 | | | | | | | | | 1 | | | | | 1 | | | | | 1 | | | | | |
| 12 | | | | | | | | | | 1 | | | | 1 | | | | | 1 | | | | | |
| 13 | | | | | | | 1 | | | 1 | | | 1 | | | | | | 1 | | | | | |
| 14 | | | | | | | 1 | | | | | | 1 | | | | | | 1 | | | | | |
| 15 | | | | | | | | | 1 | | | | | 1 | | | | | 1 | | | | | |
| 16 | | | | | | | 1 | | | | | | 1 | | | | | | 1 | | | | | |
| 17 | | | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | |
| 18 | | | | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | |
| 19 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 20 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 21 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 22 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 23 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 24 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 25 | | | | | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 26 | | | | | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 27 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 28 | | | | | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 29 | | | | | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 30 | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 31 | | | | | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 32 | | | | | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 33 | | | | | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 34 | | | | | | | | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 35 | | | | | | | | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 36 | | | | | | | | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 37 | | | | | | | | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 38 | | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 39 | | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 40 | | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| 41 | | | | | | | | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 42 | | | | | | | | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 43 | | | | | | | | | | | | 1 | 1 | | | | | | 1 | | 1 | | | |
| 44 | 1 | | | | | | 1 | | | | | | 1 | | | | | | 1 | | | | | |
| 45 | | | | | | 1 | 1 | | | | | | | | 1 | | | | 1 | | | | | |
| 46 | 1 | | | | | | 1 | | | | | | 1 | | | | | | 1 | | | | | |
| 47 | | | | | | | 1 | | | | | | 1 | | | | | | 1 | | | | | |
| 48 | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | | |
| 49 | | | | | | 1 | | | | | | | | 1 | | | | | 1 | | | | | |
| 50 | | | | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | |

| Reach: 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|------------------|-----------------------|-----------------------|----------------|-----------------------|---------------|-----------------|------------------|-----------------------------|--------------------|-----------|--------|------------------------------|------|----------|------|-----------------------|-------------|---------------------|-------|-----|----------------------|----------|--|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vegetation | | | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Ambrosia psilostachya | Apium graveolens | Artemisia californica | Artemisia douglasiana | Brassica nigra | Carduus pycnocephalus | Claytonia sp. | Nerium oleander | non-native grass | Salix lasiolepis (saplings) | Tecomaria capensis | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna sp. | concrete | |
| 51 | | | | 1 | | | | | | | | | 1 | | | | | 1 | | | | | | | |
| 52 | | | | 1 | | | | | | | | | 1 | | | | | 1 | | | | | | | |
| 53 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 54 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 55 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 56 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 57 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 58 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 59 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 60 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 61 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 62 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 63 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 64 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 65 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | 1 | | |
| Totals | 3 | 0 | 0 | 5 | 1 | 1 | 8 | 6 | 4 | 4 | 6 | 14 | 28 | 11 | 2 | 24 | 0 | 0 | 55 | 0 | 10 | 0 | 0 | 1 | |
| | | | | | | | | | | | | | | Summary | | Percent: | | | | | | | | | |
| | | | | | | | | | | | | | | Total Native Class Cover | | 46.15385 | | | | | | | | | |
| | | | | | | | | | | | | | | Total Non-native Class Cover | | 20 | | | | | | | | | |
| | | | | | | | | | | | | | | Total Unvegetated | | 36.92308 | | | | | | | | | |

| Reach: 2 | | | | | | | | | | | | | | | |
|--------------------|------------------|--------------------------|--------|-------------|------|----------|------|-------------|-------------|-----------------------|-------|-----|----------------------|--|--|
| Transect Number: 3 | | | | Class Cover | | | | | | Ground Cover Material | | | | | |
| Vegetation | non-native grass | Salix sp. (Mature trees) | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna sp. | | |
| 1 | | | | | | 1 | | | | | | 1 | | | |
| 2 | | | | | | 1 | | | | | | 1 | | | |
| 3 | | | | | | 1 | | | | | | 1 | | | |
| 4 | | | | | | 1 | | | | | | 1 | | | |
| 5 | | | | | | 1 | | | | | | 1 | | | |
| 6 | | | | | | 1 | | | | | | 1 | | | |
| 7 | | | | | | 1 | | | | | 1 | | | | |
| 8 | | | | | | 1 | | | | | | 1 | | | |
| 9 | | | | | | 1 | | | | | | 1 | | | |
| 10 | | | | | | 1 | | | | | | 1 | | | |
| 11 | | | | | | 1 | | | | | | 1 | | | |
| 12 | | | | | | 1 | | | | | | 1 | | | |
| 13 | | | | | | 1 | | | | | | 1 | | | |
| 14 | | | | | | 1 | | | | | | 1 | | | |
| 15 | | | | | | 1 | | | | | | | 1 | | |
| 16 | | | | | | 1 | | | | | | | 1 | | |
| 17 | | | | | | 1 | | | | 1 | | | | | |
| 18 | | 1 | 1 | | | | | | 1 | | | | | | |
| 19 | | 1 | 1 | | | | | | 1 | | | | | | |
| 20 | | 1 | 1 | | | | | | 1 | | | | | | |
| 21 | | 1 | 1 | | | | | | 1 | | | | | | |
| 22 | | 1 | 1 | | | | | | 1 | | | | | | |
| 23 | | 1 | 1 | | | | | | 1 | | | | | | |
| 24 | | 1 | 1 | | | | | | 1 | | | | | | |
| 25 | | 1 | 1 | | | | | | 1 | | | | | | |
| 26 | | 1 | 1 | | | | | | 1 | | | | | | |
| 27 | | 1 | 1 | | | | | | 1 | | | | | | |
| 28 | 1 | 1 | | | 1 | | | | 1 | | | | | | |
| 29 | 1 | 1 | | | 1 | | | | 1 | | | | | | |
| 30 | 1 | 1 | | | 1 | | | | 1 | | | | | | |
| 31 | | 1 | 1 | | | | | | 1 | | | | | | |
| 32 | | 1 | 1 | | | | | | 1 | | | | | | |
| 33 | | 1 | 1 | | | | | | 1 | | | | | | |
| 34 | | 1 | 1 | | | | | | 1 | | | | | | |
| 35 | | 1 | 1 | | | | | | 1 | | | | | | |
| Totals | 3 | 18 | 15 | 0 | 3 | 17 | 0 | 0 | 18 | 1 | 8 | 8 | 0 | | |

| | | | | | | | | | | | | | | | | |
|--------------------|------------------|--------------------------|------------------------------|------------|------|----------|--|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|--|--|
| Reach: 2 | | | | | | | | | | | | | | | | |
| Transect Number: 3 | | | | | | | | | | | | | | | | |
| | | | Class Cover | | | | | Ground Cover Material | | | | | | | | |
| Vegetation | non-native grass | Salix sp. (Mature trees) | Native | Non-native | Both | No Plant | | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna sp. | | |
| | | | Summary | | | Percent: | | | | | | | | | | |
| | | | Total Native Class Cover | | | 27.69231 | | | | | | | | | | |
| | | | Total Non-native Class Cover | | | 4.615385 | | | | | | | | | | |
| | | | Total Unvegetated | | | 48.57143 | | | | | | | | | | |

| Reach: 3 | | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|-------------------|-----------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----|----------------------|--|--|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | |
| Vegetation | Class Cover | | | Ground Cover Material | | | | | | | | | | | | | | |
| | Phacelia cicutaria | non-native grass | Quercus agrifolia | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna sp. | | | | |
| 1 | | | | | | | 1 | | | | | | | | | | | |
| 2 | | | | | | | 1 | | | | | | | | | | | |
| 3 | | 1 | | | 1 | | | | | | | | | | | | | |
| 4 | | | | | | | 1 | | | | | | | | | | | |
| 5 | | | | | | | 1 | | | | | | | | | | | |
| 6 | | | | | | | 1 | | | | | | | | | | | |
| 7 | 1 | | | 1 | | | | | | | | | | | | | | |
| 8 | | | | | | | 1 | | | | | | | | | | | |
| 9 | | | | | | | 1 | | | | | | | | | | | |
| 10 | | | | | | | 1 | | | | | | | | | | | |
| 11 | | | | | | | 1 | | | | | | | | | | | |
| 12 | | | | | | | 1 | | | | | | | | | | | |
| 13 | | | | | | | 1 | | | | | | | | | | | |
| 14 | | | | | | | 1 | | | | | | | | | | | |
| 15 | | | | | | | 1 | | | | | | | | | | | |
| 16 | | 1 | | | 1 | | | | | | | | | | | | | |
| 17 | | | | | | | 1 | | | | | | | | | | | |
| 18 | | | | | | | 1 | | | | | | | | | | | |
| 19 | | | | | | | 1 | | | | | | | | | | | |
| 20 | | | | | | | 1 | | | | | | | | | | | |
| 21 | | | | | | | 1 | | | | | | | | | | | |
| 22 | | | | | | | 1 | | | | | | | | | | | |
| 23 | | | | | | | 1 | | | | | | | | | | | |
| 24 | | 1 | 1 | | | 1 | | | | | | | | | | | | |
| 25 | 1 | | 1 | 1 | | | | | | | | | | | | | | |
| 26 | | | 1 | 1 | | | | | | | | | | | | | | |
| 27 | | | 1 | 1 | | | | | | | | | | | | | | |
| 28 | | | 1 | 1 | | | | | | | | | | | | | | |
| 29 | | | 1 | 1 | | | | | | | | | | | | | | |
| 30 | | | 1 | 1 | | | | | | | | | | | | | | |
| 31 | | | 1 | 1 | | | | | | | | | | | | | | |
| 32 | | | 1 | 1 | | | | | | | | | | | | | | |
| 33 | | | 1 | 1 | | | | | | | | | | | | | | |
| 34 | | | 1 | 1 | | | | | | | | | | | | | | |
| 35 | | | 1 | 1 | | | | | | | | | | | | | | |
| 36 | | | 1 | 1 | | | | | | | | | | | | | | |
| 37 | | | 1 | 1 | | | | | | | | | | | | | | |
| 38 | | | 1 | 1 | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|-------------------|------------------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|--|--|--|
| Reach: 3 | | | | | | | | | | | | | | | | | |
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Vegetation | Phacelia cicutaria | non-native grass | Quercus agrifolia | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | mud | water with Lemna sp. | | | |
| | 39 | | 1 | 1 | | | | | | | | | | | | | |
| | 40 | | 1 | 1 | | | | | | | | | | | | | |
| Totals | 2 | 3 | 17 | 17 | 2 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | Summary | | | Percent: | | | | | | | | | | |
| | | | | Total Native Class Cover | | | 45 | | | | | | | | | | |
| | | | | Total Non-native Class Cover | | | 7.5 | | | | | | | | | | |
| | | | | Total Unvegetated | | | 50 | | | | | | | | | | |

| Reach: 4 | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
|--------------------|-----------------------|----------------|---------------------|------------------|-------------|------------|------|----------|-----------------------|-------------|---|---------------------|-------|-----|----------------------|
| Transect Number: 1 | | | | | | | | | | | | | | | |
| Vegetation | Ambrosia psilostachya | Brassica nigra | Medicago polymorpha | non-native grass | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter* This leaf litter is non-native grass thatch without live green grass | coarse woody debris | water | mud | water with Lemna sp. |
| 1 | | | | 1 | | 1 | | | 1 | | | | | | |
| 2 | | | | 1 | | 1 | | | | | 1 | | | | |
| 3 | | | | | | | | 1 | | | 1 | | | | |
| 4 | | | | 1 | | 1 | | | | | 1 | | | | |
| 5 | | | | 1 | | 1 | | | | | 1 | | | | |
| 6 | | | | 1 | | 1 | | | | | 1 | | | | |
| 7 | | | | 1 | | 1 | | | | | 1 | | | | |
| 8 | | | | 1 | | 1 | | | | | 1 | | | | |
| 9 | | | | 1 | | 1 | | | | | 1 | | | | |
| 10 | | | | 1 | | 1 | | | | | 1 | | | | |
| 11 | | | | 1 | | 1 | | | | | 1 | | | | |
| 12 | | | | | | | | 1 | 1 | | | | | | |
| 13 | | | | 1 | | 1 | | | | | 1 | | | | |
| 14 | | | | | | | | 1 | | | 1 | | | | |
| 15 | | | | 1 | | 1 | | | | | 1 | | | | |
| 16 | | | | 1 | | 1 | | | | | 1 | | | | |
| 17 | | | | 1 | | 1 | | | | | 1 | | | | |
| 18 | | | | | | | | 1 | 1 | | | | | | |
| 19 | | | | | | | | 1 | | | 1 | | | | |
| 20 | | | | | | | | 1 | 1 | | | | | | |
| 21 | | | | 1 | | 1 | | | | | 1 | | | | |
| 22 | | | | 1 | | 1 | | | | | 1 | | | | |
| 23 | | | 1 | 1 | | 1 | | | | | 1 | | | | |
| 24 | | | | 1 | | 1 | | | | | 1 | | | | |
| 25 | | | | 1 | | 1 | | | | | 1 | | | | |
| 26 | | | | | | | | 1 | 1 | | | | | | |
| 27 | | | 1 | | | 1 | | | | | 1 | | | | |
| 28 | | | | 1 | | 1 | | | | | 1 | | | | |
| 29 | | | | | | | | 1 | 1 | | | | | | |
| 30 | | | 1 | | | 1 | | | | | 1 | | | | |
| 31 | | | | 1 | | 1 | | | | | 1 | | | | |
| 32 | | | | 1 | | 1 | | | | | 1 | | | | |
| 33 | | | | 1 | | 1 | | | | | 1 | | | | |
| 34 | | | | 1 | | 1 | | | | | 1 | | | | |
| 35 | | | | 1 | | 1 | | | | | 1 | | | | |
| 36 | | | | 1 | | 1 | | | | | 1 | | | | |
| 37 | | | | | | | | 1 | | | 1 | | | | |
| 38 | | | | | | | | 1 | | | 1 | | | | |

| Reach: 4 | | | | | | | | | | | | | | | |
|------------------------------|-----------------------|----------------|---------------------|------------------|-----------------------|------------|------|----------|------|-------------|---|---------------------|-------|-----|----------------------|
| Transect Number: 1 | | | | | | | | | | | | | | | |
| Vegetation | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| | Ambrosia psilostachya | Brassica nigra | Medicago polymorpha | non-native grass | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter* This leaf litter is non-native grass thatch without live green grass | coarse woody debris | water | mud | water with Lemna sp. |
| 39 | | | | 1 | | 1 | | | | | 1 | | | | |
| 40 | | | | | | | 1 | | | | | | | 1 | |
| 41 | | | | | | | 1 | | | | | | | 1 | |
| 42 | | | | | | | 1 | | | | | | 1 | | |
| 43 | | | | | | | 1 | | | | | | 1 | | |
| 44 | | | | | | | 1 | | | | | | 1 | | |
| 45 | | | | | | | 1 | | | | | | 1 | | |
| 46 | | | | | | | 1 | | | | | | | 1 | |
| 47 | | | | | | | 1 | | | | | | | 1 | |
| 48 | | | | | | | 1 | | | | | | | 1 | |
| 49 | | | | 1 | | 1 | | | | | | | | 1 | |
| 50 | | | | 1 | | 1 | | | | | | | | 1 | |
| 51 | | | | 1 | | 1 | | | | | 1 | | | | |
| 52 | | | | 1 | | 1 | | | | | 1 | | | | |
| 53 | | | | 1 | | 1 | | | | | 1 | | | | |
| 54 | | | | 1 | | 1 | | | | | 1 | | | | |
| 55 | | | | | | | 1 | | 1 | | | | | | |
| 56 | | | | | | | 1 | | 1 | | | | | | |
| 57 | | | | 1 | | 1 | | | | | 1 | | | | |
| 58 | | | | 1 | | 1 | | | | | 1 | | | | |
| 59 | 1 | | | 1 | | | 1 | | | | 1 | | | | |
| 60 | | 1 | | 1 | | 1 | | | | | 1 | | | | |
| 61 | | | | 1 | | 1 | | | | | 1 | | | | |
| 62 | | | | 1 | | 1 | | | | | 1 | | | | |
| 63 | | | | 1 | | 1 | | | | | 1 | | | | |
| 64 | | | | 1 | | 1 | | | | | 1 | | | | |
| 65 | | | | 1 | | 1 | | | | | 1 | | | | |
| Totals | 1 | 1 | 3 | 42 | 0 | 43 | 1 | 21 | 8 | 0 | 46 | 0 | 4 | 7 | 0 |
| Summary | | | | | | | | Percent: | | | | | | | |
| Total Native Class Cover | | | | | | | | 1.538462 | | | | | | | |
| Total Non-native Class Cover | | | | | | | | 67.69231 | | | | | | | |
| Total Unvegetated | | | | | | | | 32.30769 | | | | | | | |

| Reach: 4 | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|----------------|------------------|-------------------------|----------------------------|-----------------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|----------|-----|---|---|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | |
| Vegetation | Baccharis salicifolia | Brassica nigra | non-native grass | Salix exigua (Saplings) | Salix laevigata (Saplings) | Salix lasiolepis (saplings) | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | | | | | | | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | Coarse woody debris | water | concrete | mud | | |
| 1 | | | 1 | | | | | | | | 1 | | | | | | | | |
| 2 | | | | | | | | | | | | | | 1 | | | | | |
| 3 | | | | | | | | | | | | | | | | | | 1 | |
| 4 | | | | | | | | | | | | | | | | | | 1 | |
| 5 | | | | | | | 1 | | | | | | | | | | | | 1 |
| 6 | | | 1 | | | | | | | | 1 | | | | | | | | |
| 7 | | | | | | | | | | | | | | 1 | | | | | |
| 8 | | | | | | | | | | | | | | 1 | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | 1 |
| 10 | | | | | | | | | | | | | | | | | | | 1 |
| 11 | | | | | | | | | | | | | | | | | | | 1 |
| 12 | 1 | | | | | | | | | | 1 | | | | | | | | |
| 13 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 14 | | | | | | 1 | | | | | 1 | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | 1 |
| 16 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 17 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 18 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 19 | | | | | | | | | | | | | | | | | | 1 | 1 |
| 20 | | | | | | | | | | | | | | | | | | | 1 |
| 21 | | | | | | | | | | | | | | | | | | | 1 |
| 22 | | | | | | | | | | | | | | | | | | | 1 |
| 23 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 24 | | | | | | | | | | | | | | | | | | | 1 |
| 25 | | | | | | | | | | | | | | | | | | | 1 |
| 26 | | | | | | | | | | | | | | | | | | | 1 |
| 27 | | | | | | | | | | | | | | | | | | | 1 |
| 28 | | | | | | | | | | | | | | | | | | | 1 |
| 29 | | | | | | | | | | | | | | | | | | | 1 |
| 30 | | | | | | | | | | | | | | | | | | | 1 |
| 31 | | | | | | | | | | | | | | | | | | | 1 |
| 32 | | | | | | | | | | | | | | | | | | | 1 |
| 33 | | | | | | | | | | | | | | | | | | | 1 |
| 34 | | | | | | | | | | | | | | | | | | | 1 |
| 35 | | | | | | | | | | | | | | | | | | | 1 |
| 36 | | | | | | | | | | | | | | | | | | | 1 |
| 37 | | | | | | | | | | | | | | | | | | | 1 |

| Vegetation | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
|---------------|-----------------------|----------------|------------------|-------------------------|----------------------------|-----------------------------|------------------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|----------|-----|
| | Baccharis salicifolia | Brassica nigra | non-native grass | Salix exigua (Saplings) | Salix laevigata (Saplings) | Salix lasiolepis (saplings) | Native | Non-native | Both | No Plant | Bare | Rock/cobble | leaf litter | coarse woody debris | water | concrete | mud |
| 38 | | | | 1 | | | 1 | | | | | 1 | | | | | |
| 39 | | | | | | | | | 1 | | | 1 | | | | | |
| 40 | | | | | | | | | 1 | | | 1 | | | | | |
| 41 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 42 | | | | | | | | | | | | 1 | | | | | |
| 43 | | | | | | | | | | | | 1 | | | | | |
| 44 | | | | 1 | | | | 1 | | | | 1 | | | | | |
| 45 | | | | 1 | | | | 1 | | | | 1 | | | | | |
| 46 | | | | | | | | | 1 | | | 1 | | | | | |
| 47 | | | | | | | | | 1 | | | 1 | | | | | |
| 48 | | | | 1 | | | | 1 | | | 1 | | | | | | |
| 49 | | 1 | | | | | | 1 | | | | 1 | | | | | |
| 50 | | | | 1 | | | | 1 | | | | 1 | | | | | |
| 51 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 52 | | | | | | | | | 1 | | | 1 | | | | | |
| 53 | | | | | | | | | 1 | | | 1 | | | | | |
| 54 | | | | | | | | | 1 | | | 1 | | | | | |
| 55 | | | | | | 1 | | 1 | | | | 1 | | | | | |
| 56 | | | | | | | | | 1 | | | 1 | | | | | |
| 57 | | | | 1 | | | | 1 | | | | 1 | | | | | |
| 58 | | | | | | | | | 1 | | | 1 | | | | | |
| 59 | | | | | | | | | 1 | | | 1 | | | | | |
| 60 | | | | 1 | | | | | 1 | | | 1 | | | | | |
| 61 | | | | 1 | | | | | 1 | | | 1 | | | | | |
| 62 | | | | 1 | | | | | 1 | | | 1 | | | | | |
| 63 | | | | 1 | | | | | 1 | | | 1 | | | | | |
| 64 | | | | 1 | | | | | 1 | | | 1 | | | | | |
| Totals | 1 | 1 | 14 | 9 | 2 | 4 | 11 | 18 | 1 | 34 | 6 | 0 | 48 | 0 | 3 | 2 | 5 |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | Summary | | | Percent: | | | | | | | |
| | | | | | | | Total Native Class Cover | | | 18.75 | | | | | | | |
| | | | | | | | Total Non-native Class Cover | | | 29.6875 | | | | | | | |
| | | | | | | | Total Unvegetated | | | 53.125 | | | | | | | |

| Reach: 5 | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|----------------|---|-------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|--|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| Reading per foot: | Ambrosia psilostachya | Eucalyptus sp. | Salix lasiolepis xwith red (Mature trees) | Sonchus oleraceus | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | | | |
| 1 | | 1 | 1 | | | | 1 | | 1 | | | | | | | | | | |
| 2 | | 1 | 1 | | | | 1 | | 1 | | | | | | | | | | |
| 3 | | 1 | 1 | | | | 1 | | | | 1 | | | | | | | | |
| 4 | | 1 | 1 | | | | 1 | | | | 1 | | | | | | | | |
| 5 | | 1 | 1 | | | | 1 | | | | | | 1 | | | | | | |
| 6 | | 1 | 1 | | | | 1 | | | | | | 1 | | | | | | |
| 7 | | | 1 | | 1 | | | | | | | | 1 | | | | | | |
| 8 | | | 1 | | 1 | | | | | | | | 1 | | | | | | |
| 9 | | | 1 | | 1 | | | | | | | | 1 | | | | | | |
| 10 | | | 1 | | 1 | | | | | | | | 1 | | | | | | |
| 11 | | | 1 | | 1 | | | | | | | | 1 | | | | | | |
| 12 | | | 1 | | 1 | | | | | | | | 1 | | | | | | |
| 13 | | | 1 | | 1 | | | | | | | | 1 | | | | | | |
| 14 | | | 1 | | 1 | | | | | | | | 1 | | | | | | |
| 15 | | | 1 | | 1 | | | | | | | | 1 | | | | | | |
| 16 | | | 1 | | 1 | | | | | | | | 1 | | | | | | |
| 17 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 18 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 19 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 20 | | | 1 | 1 | | | 1 | | | | 1 | | | | | | | | |
| 21 | 1 | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 22 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 23 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 24 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 25 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 26 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 27 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 28 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 29 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 30 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 31 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 32 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 33 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |
| 34 | | | 1 | | 1 | | | | | | 1 | | | | | | | | |

| Reach: 5 | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|----------------|---|-------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|
| Transect Number: 1 | | | | | | | | | | | | | | | | |
| Reading per foot: | Vegetation species | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Ambrosia psilostachya | Eucalyptus sp. | Salix lasiolepis xwith red (Mature trees) | Sonchus oleraceus | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap |
| 35 | | | 1 | | 1 | | | | | | 1 | | | | | |
| 36 | | | 1 | | 1 | | | | | | 1 | | | | | |
| 37 | | | 1 | | 1 | | | | | | 1 | | | | | |
| 38 | | | 1 | | 1 | | | | | | 1 | | | | | |
| 39 | | | 1 | | 1 | | | | | | | | | | 1 | |
| 40 | | | 1 | | 1 | | | | | | 1 | | | | | |
| 41 | | | 1 | | 1 | | | | | | 1 | | | | | |
| 42 | | | 1 | | 1 | | | | | | 1 | | | | | |
| 43 | | | 1 | | 1 | | | | | | | | | | 1 | |
| 44 | | | 1 | | 1 | | | | | | 1 | | | | | |
| 45 | | | 1 | | 1 | | | | | | 1 | | | | | |
| 46 | | | 1 | | 1 | | | | | | | | | | 1 | |
| 47 | | | 1 | | 1 | | | | | | 1 | | | | | |
| 48 | | | 1 | | 1 | | | | | | 1 | | | | | |
| 49 | | | 1 | | 1 | | | | | | | | | | 1 | |
| 50 | | | 1 | | 1 | | | | | | | | | | 1 | |
| Totals | 1 | 6 | 50 | 1 | 43 | 0 | 7 | 0 | 2 | 2 | 29 | 0 | 12 | 0 | 0 | 5 |
| | | | | | Total Class Cover: | | | | | | | | | | | |
| | | | | | Native | | | | 100 | | | | | | | |
| | | | | | non-native | | | | 14 | | | | | | | |
| | | | | | no vegetation | | | | 0 | | | | | | | |

| Reach: 5 | | | | | | | | | | | | | | | | | | |
|--------------------|---|--------------------|------------------------------|-----------|--------|-----------------------|------|----------|------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|--|--|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | |
| | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | |
| Reading per foot: | | non-native grasses | Rorippa nasturtium-aquaticum | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | | |
| 1 | | | | | | | | 1 | 1 | | | | | | | | | |
| 2 | | | | | | | | 1 | | 1 | | | | | | | | |
| 3 | 1 | | | | | 1 | | | | | 1 | | | | | | | |
| 4 | | | | | | | | 1 | | 1 | | | | | | | | |
| 5 | | | | | | | | 1 | | | | | 1 | | | | | |
| 6 | | | | | | | | 1 | | | | | 1 | | | | | |
| 7 | | | | | | | | 1 | | | | | 1 | | | | | |
| 8 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 9 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 10 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 11 | | | 1 | | | 1 | | | | | | | | | 1 | | | |
| 12 | | | 1 | | | 1 | | | | | | | | | 1 | | | |
| 13 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 14 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 15 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 16 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 17 | | | | 1 | 1 | | | | | | 1 | | | | | | | |
| 18 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 19 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 20 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 21 | | | | | | | | 1 | | | | | 1 | | | | | |
| 22 | | | | | | | | 1 | | | | | 1 | | | | | |
| 23 | | | | | | | | 1 | | | | | | | | 1 | | |
| 24 | | | | | | | | 1 | | | | | | | | 1 | | |
| 25 | | | | | | | | 1 | | | | | | | | 1 | | |
| 26 | | | | | | | | 1 | | | | | | | | 1 | | |
| 27 | | | | | | | | 1 | | | | | | | | 1 | | |
| 28 | | | | | | | | 1 | | | | | | | | 1 | | |
| 29 | | | | | | | | 1 | | | | | | | | 1 | | |
| 30 | | | | | | | | 1 | | | | | | | | 1 | | |
| 31 | | | | | | | | 1 | | | | | | | | 1 | | |
| 32 | | | | | | | | 1 | | | | | | | | 1 | | |
| 33 | | | | | | | | 1 | | | | | | | | 1 | | |
| 34 | | | | | | | | 1 | | | | | | | | 1 | | |
| 35 | | | | | | | | 1 | | | | | | | | 1 | | |
| 36 | | | | | | | | 1 | | | | | | | | 1 | | |

| Reach: 5 | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------------------|-----------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|----|---|--|--|--|--|--|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | | |
| Reading per foot: | non-native grasses | Rorippa nasturtium-aquaticum | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | | | | | | | |
| 37 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 38 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 39 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 40 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 41 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 42 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 43 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 44 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 45 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 46 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 47 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 48 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 49 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| 50 | | | | | | | 1 | | | | | | | | | | 1 | | | | | |
| Totals | 1 | 2 | 11 | 11 | 3 | 0 | 36 | 1 | 2 | 8 | 0 | 9 | 2 | 0 | | 28 | | | | | | |
| | | | | Total Class Cover: | | | | | | | | | | | | | | | | | | |
| | | | | Native | | | | 22 | | | | | | | | | | | | | | |
| | | | | non-native | | | | 6 | | | | | | | | | | | | | | |
| | | | | no vegetation | | | | 72 | | | | | | | | | | | | | | |

| Reach: 6 | | | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------------|----------------------------|-----------------------|--------------------|------|----------|------|-------------|-------------|---------------------|-------|-----|----------------------|--------------|---|---|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | |
| Reading pe | Class Cover | | | Ground Cover Material | | | | | | | | | | | | | | | |
| | non-native grasses | Rorippa nasturtium-aqu | Salix lasiolepis (Mature L | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | metal debris | | | | |
| 1 | | | | | | | 1 | | | 1 | | | | | | | | | |
| 2 | | | | | | | 1 | | | 1 | | | | | | | | | |
| 3 | | | | | | | 1 | | | 1 | | | | | | | | | |
| 4 | 1 | | | | 1 | | | | | | | | | 1 | | | | | |
| 5 | 1 | | | | 1 | | | | | | | | | 1 | | | | | |
| 6 | 1 | | | | 1 | | | | | | | | | 1 | | | | | |
| 7 | 1 | | | | 1 | | | | | | | | | 1 | | | | | |
| 8 | 1 | | | | 1 | | | | | | | | | 1 | | | | | |
| 9 | 1 | | | | 1 | | | | | | | | | 1 | | | | | |
| 10 | | 1 | | | 1 | | | | | | | | | 1 | | | | | |
| 11 | | | | | | | 1 | | | | | | 1 | | | | | | |
| 12 | | | | | | | 1 | | | | | | 1 | | | | | | |
| 13 | | | | | | | 1 | | | | | | 1 | | | | | | |
| 14 | | | | | | | 1 | | | | | | 1 | | | | | | |
| 15 | | | | | | | 1 | | | | | | 1 | | | | | | |
| 16 | | 1 | 1 | | | 1 | | | | | | | | 1 | | | | | |
| 17 | | | 1 | | 1 | | | | | | | | | 1 | | | | | |
| 18 | 1 | | 1 | | | 1 | | | | | | | | 1 | | | | | |
| 19 | 1 | | 1 | | | 1 | | | | | | | | 1 | | | | | |
| 20 | 1 | | 1 | | | 1 | | | | | | | | 1 | | | | | |
| 21 | | | 1 | | 1 | | | | | | | | | 1 | | | | | |
| 22 | | | 1 | | 1 | | | | | 1 | | | | | | | | | |
| 23 | | | 1 | | 1 | | | | | 1 | | | | | | | | | |
| 24 | | | 1 | | 1 | | | | | 1 | | | | | | | | | |
| 25 | | | 1 | | 1 | | | | | 1 | | | | | | | | | |
| 26 | | | 1 | | 1 | | | | | 1 | | | | | | | | | |
| 27 | | | 1 | | 1 | | | | | 1 | | | | | | | | | |
| 28 | | | 1 | | 1 | | | | | 1 | | | | | | | | | |
| 29 | | | 1 | | 1 | | | | | 1 | | | | | | | | | |
| 30 | | | 1 | | 1 | | | | | 1 | | | | | | | | | |
| Totals | 9 | 2 | 15 | | 11 | 7 | 4 | 8 | | 0 | 0 | 12 | 0 | 5 | 13 | 0 | 0 | | |
| | | | | | Total Class Cover: | | | | | | | | | | | | | | |
| | | | | | Native | | 50 | | | | | | | | | | | | |
| | | | | | non-native | | 36.66667 | | | | | | | | | | | | |
| | | | | | no vegetation | | 26.66667 | | | | | | | | | | | | |

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|--------------------|--------------------|------------------------|----------------------------|--|-----------------------|------------|------|----------|--|------|-------------|-------------|---------------------|-------|-----|----------------------|--------------|
| Reach: 6 | | | | | | | | | | | | | | | | | |
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | |
| Reading pe | non-native grasses | Rorippa nasturtium-aqu | Salix lasiolepis (Mature t | | Native | Non-native | Both | No Plant | | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | metal debris |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

Reach: 7

Transect Number: 1 - not sampled during post clearance surveys because the area had not been cleared.

| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
|--------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|----------------------|------------------|--|--|--|
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | water with Lemna sp. | ungROUTED riprap | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | |
| 41 | | | | | | | | | | | | | | |
| 42 | | | | | | | | | | | | | | |
| 43 | | | | | | | | | | | | | | |
| 44 | | | | | | | | | | | | | | |
| 45 | | | | | | | | | | | | | | |
| 46 | | | | | | | | | | | | | | |
| 47 | | | | | | | | | | | | | | |
| 48 | | | | | | | | | | | | | | |
| 49 | | | | | | | | | | | | | | |
| 50 | | | | | | | | | | | | | | |
| 51 | | | | | | | | | | | | | | |
| 52 | | | | | | | | | | | | | | |
| 53 | | | | | | | | | | | | | | |
| 54 | | | | | | | | | | | | | | |
| 55 | | | | | | | | | | | | | | |
| 56 | | | | | | | | | | | | | | |
| 57 | | | | | | | | | | | | | | |
| 58 | | | | | | | | | | | | | | |
| 59 | | | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | | | |
| 61 | | | | | | | | | | | | | | |
| 62 | | | | | | | | | | | | | | |
| 63 | | | | | | | | | | | | | | |
| 64 | | | | | | | | | | | | | | |
| 65 | | | | | | | | | | | | | | |
| 66 | | | | | | | | | | | | | | |
| 67 | | | | | | | | | | | | | | |
| 68 | | | | | | | | | | | | | | |
| 69 | | | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | | | |
| 71 | | | | | | | | | | | | | | |
| 72 | | | | | | | | | | | | | | |
| 73 | | | | | | | | | | | | | | |
| 74 | | | | | | | | | | | | | | |
| 75 | | | | | | | | | | | | | | |
| 76 | | | | | | | | | | | | | | |

Reach: 7

Transect Number: 1 - not sampled during post clearance surveys because the area had not been cleared.

| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
|--------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|----------------------|-------------------|--|--|--|
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | water with Lemna sp. | ungrounted riprap | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| 77 | | | | | | | | | | | | | | |
| 78 | | | | | | | | | | | | | | |
| 79 | | | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | | | |
| 81 | | | | | | | | | | | | | | |
| 82 | | | | | | | | | | | | | | |
| 83 | | | | | | | | | | | | | | |
| 84 | | | | | | | | | | | | | | |
| 85 | | | | | | | | | | | | | | |
| 86 | | | | | | | | | | | | | | |
| 87 | | | | | | | | | | | | | | |
| 88 | | | | | | | | | | | | | | |
| 89 | | | | | | | | | | | | | | |
| 90 | | | | | | | | | | | | | | |
| 91 | | | | | | | | | | | | | | |
| 92 | | | | | | | | | | | | | | |
| 93 | | | | | | | | | | | | | | |
| 94 | | | | | | | | | | | | | | |
| 95 | | | | | | | | | | | | | | |
| 96 | | | | | | | | | | | | | | |
| 97 | | | | | | | | | | | | | | |
| 98 | | | | | | | | | | | | | | |
| 99 | | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | | |
| 101 | | | | | | | | | | | | | | |
| 102 | | | | | | | | | | | | | | |
| 103 | | | | | | | | | | | | | | |
| 104 | | | | | | | | | | | | | | |
| 105 | | | | | | | | | | | | | | |
| 106 | | | | | | | | | | | | | | |
| 107 | | | | | | | | | | | | | | |
| 108 | | | | | | | | | | | | | | |
| 109 | | | | | | | | | | | | | | |
| 110 | | | | | | | | | | | | | | |
| 111 | | | | | | | | | | | | | | |
| 112 | | | | | | | | | | | | | | |
| 113 | | | | | | | | | | | | | | |
| 114 | | | | | | | | | | | | | | |

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|---|---|--------------------|------------|------|----------|-----------------------|--------------|-------------|---------------------|-------|----------------------|------------------|---|---|---|---|---|
| Reach: 7 | | | | | | | | | | | | | | | | | |
| Transect Number: 1 - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | |
| | | Native | Non-native | Both | No Plant | Bare | Rocky/Cobble | Leaf Litter | Coarse woody debris | water | water with Lemna sp. | ungROUTED riprap | | | | | |
| Reading per foot: | | | | | | | | | | | | | | | | | |
| 115 | | | | | | | | | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Total Class Cover: | | | | | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | | | | | |
| | | non-native | | 0 | | | | | | | | | | | | | |
| | | no vegetation | | 0 | | | | | | | | | | | | | |

| Reach: 8 | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|---------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|------|
| Transect Number: 1 | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | sand |
| Reading pe | Sonchus asper | | | | | | | | | | | | |
| 1 | | | | | 1 | | | | | | | 1 | |
| 2 | | | | | 1 | | | | | | | 1 | |
| 3 | | | | | 1 | | | | | | | 1 | |
| 4 | | | | | 1 | | | | | | | 1 | |
| 5 | | | | | 1 | | | | | | | 1 | |
| 6 | | | | | 1 | | | | | | | 1 | |
| 7 | | | | | 1 | | | | | | | 1 | |
| 8 | | | | | 1 | | | | | | | 1 | |
| 9 | | | | | 1 | | | | | | | 1 | |
| 10 | | | | | 1 | | | | | | | 1 | |
| 11 | | | | | 1 | | | | | | | 1 | |
| 12 | | | | | 1 | | | | | | 1 | | |
| 13 | | | | | 1 | | | | | | 1 | | |
| 14 | | | | | 1 | | | | | 1 | | | |
| 15 | | | | | 1 | | | | | 1 | | | |
| 16 | | | | | 1 | | | | | 1 | | | |
| 17 | | | | | 1 | | | | | 1 | | | |
| 18 | | | | | 1 | | | | | 1 | | | |
| 19 | | | | | 1 | | | | | 1 | | | |
| 20 | | | | | 1 | | | | | | | | 1 |
| 21 | | | | | 1 | | | | | | | | 1 |
| 22 | | | | | 1 | | | | | 1 | | | |
| 23 | | | | | 1 | | | | | 1 | | | |
| 24 | | | | | 1 | | | | | 1 | | | |
| 25 | | | | | 1 | | | | | 1 | | | |
| 26 | | | | | 1 | | | | | 1 | | | |
| 27 | | | | | 1 | | | | | 1 | | | |
| 28 | | | | | 1 | | | | | 1 | | | |
| 29 | | | | | 1 | | | | | 1 | | | |
| 30 | 1 | | 1 | | | | | | | | 1 | | |
| 31 | | | | | 1 | | | | | | | 1 | |
| 32 | | | | | 1 | | | | | | | 1 | |
| 33 | | | | | 1 | | | | | | | 1 | |
| 34 | | | | | 1 | | | | | | | 1 | |
| 35 | | | | | 1 | | | | | | | 1 | |
| 36 | | | | | 1 | | | | | | | 1 | |
| 37 | | | | | 1 | | | | | | | 1 | |

| | | | | | | | | | | | | | | | | |
|--------------------|---------------|--------------------|------------|----------|-----------|--|-----------------------|-------------|-------------|---------------------|-----------|----------|----------------|----------|--|--|
| Reach: 8 | | | | | | | | | | | | | | | | |
| Transect Number: 1 | | | | | | | | | | | | | | | | |
| | | Class Cover | | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Sonchus asper | Native | Non-native | Both | No Plant | | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | sand | | |
| 38 | | | | | 1 | | | | | | | | | 1 | | |
| 39 | | | | | 1 | | | | | | | | | 1 | | |
| 40 | | | | | 1 | | | | | | | | | 1 | | |
| Totals | 1 | 0 | 1 | 0 | 39 | | 0 | 0 | 0 | 0 | 14 | 3 | 21 | 2 | | |
| | | Total Class Cover: | | | | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | | | | |
| | | non-native | | 2.5 | | | | | | | | | | | | |
| | | no vegetation | | 97.5 | | | | | | | | | | | | |

| Reach: 8 | | | | | | | | | | | | | | | | | |
|--------------------|---------------------------|------------------|-----------------------------|----------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|-------|---|---|
| Transect Number: 2 | | | | | | | | | | | | | | | | | |
| Reading pe | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | <i>Erodium cicutarium</i> | non-native grass | <i>Polygonum arenastrum</i> | <i>Sonchus asper</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | roots | | |
| 1 | | | | | | | | 1 | 1 | | | | | | | | |
| 2 | | | | | | | | 1 | 1 | | | | | | | | |
| 3 | | | | | | | | 1 | 1 | | | | | | | | |
| 4 | | | | | | | | 1 | 1 | | | | | | | | |
| 5 | | | | | | | | 1 | 1 | | | | | | | | |
| 6 | | | | | | | | 1 | 1 | | | | | | | | |
| 7 | | | | | | | | 1 | 1 | | | | | | | | |
| 8 | | | | | | | | 1 | | | | | | | | | 1 |
| 9 | | | | | | | | 1 | 1 | | | | | | | | |
| 10 | | | | | | | | 1 | 1 | | | | | | | | |
| 11 | | | | | | | | 1 | 1 | | | | | | | | |
| 12 | | | | | | | | 1 | 1 | | | | | | | | |
| 13 | | | | | | | | 1 | 1 | | | | | | | | |
| 14 | | | | | | | | 1 | 1 | | | | | | | | |
| 15 | | | | | | | | 1 | 1 | | | | | | | | |
| 16 | | | | | | | | 1 | 1 | | | | | | | | |
| 17 | | | | | | | | 1 | | | | | 1 | | | | |
| 18 | | | | | | | | 1 | | | | | 1 | | | | |
| 19 | | | | | | | | 1 | | | | | 1 | | | | |
| 20 | | | | | | | | 1 | | | | | 1 | | | | |
| 21 | | | | | | | | 1 | | | | | 1 | | | | |
| 22 | | | | | | | | 1 | | | | | 1 | | | | |
| 23 | | | | | | | | 1 | | | | | 1 | | | | |
| 24 | | | | | | | | 1 | | | | | | | | 1 | |
| 25 | 1 | 1 | | | | 1 | | | | | | | | | | 1 | |
| 26 | | | | | | | | 1 | | | | | | | | 1 | |
| 27 | | | | | | | | 1 | | | | | | | | 1 | |
| 28 | 1 | 1 | | | | 1 | | | | | | | | | | 1 | |
| 29 | | | | | | | | 1 | | | | | | | | 1 | |
| 30 | | | | | | | | 1 | | | | | | | | 1 | |
| 31 | | | | | | 1 | | | | | | | | | | 1 | |
| 32 | | 1 | | | | 1 | | | | | | | | | | 1 | |
| 33 | | | | | | | | 1 | | | | | | | | 1 | |
| 34 | | | 1 | | | 1 | | | | | | | | | | 1 | |
| 35 | | 1 | | | | 1 | | | | | | | | | | 1 | |
| 36 | | | | | | | | 1 | | | 1 | | | | | | |
| 37 | | | | | | | | 1 | | | | | | | | 1 | |
| 38 | | | | | | | | 1 | | | | | | | | 1 | |

| Reach: 8 | | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|----------------------|---------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|-------|--|
| Transect Number: 2 | | | | | | | | | | | | | | | | |
| Reading pe | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Erodium cicutarium | non-native grass | Polygonum arenastrum | Sonchus asper | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | roots | |
| 39 | 1 | | | | | 1 | | | | | | | | | 1 | |
| 40 | 1 | | | | | 1 | | | | | | | | | 1 | |
| 41 | | | | | | | | | 1 | | | | | | | |
| 42 | | | | | | | | | 1 | | | | | | | |
| 43 | | | | | | | | | 1 | | | | | | | |
| 44 | | | | | | | | | 1 | | | | | | | |
| 45 | | | | | | | | | 1 | | | | | | | |
| 46 | | | | | | | | | 1 | | | | | | | |
| 47 | | | | | | | | | 1 | | | | | | | |
| 48 | | | | | | | | | 1 | | | | | | | |
| 49 | | | | | | | | | 1 | | | | | | | |
| 50 | | | | | | | | | 1 | | | | | | | |
| Totals | 4 | 4 | 1 | 1 | 0 | 8 | 0 | 42 | 25 | 0 | 1 | 0 | 7 | 16 | | |
| | | | | | Total Class Cover: | | | | | | | | | | | |
| | | | | | Native | | | 0 | | | | | | | | |
| | | | | | non-native | | | 16 | | | | | | | | |
| | | | | | no vegetation | | | 84 | | | | | | | | |

| Reach: 9 | | | | | | | | | | | | | | | | | |
|--------------------|---------------------------------|--------------------|------------|----------|-----------|-----------------------|-------------|-------------|---------------------|-----------|------------------|-------------------|----------|--|--|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | |
| Reading pe | Fraxinus dipetala, mature trees | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | ungROUTED riprap | Debris - concrete | mud | | | | |
| 1 | 1 | 1 | | | | | | | | | | | 1 | | | | |
| 2 | 1 | 1 | | | | | | | | | | | 1 | | | | |
| 3 | 1 | 1 | | | | | | 1 | | | | | | | | | |
| 4 | 1 | 1 | | | | | | 1 | | | | | | | | | |
| 5 | | | | | 1 | | | | 1 | | | | | | | | |
| 6 | | | | | 1 | | | | 1 | | | | | | | | |
| 7 | | | | | 1 | | | | 1 | | | | | | | | |
| 8 | | | | | 1 | | | | 1 | | | | | | | | |
| 9 | | | | | 1 | | | | 1 | | | | | | | | |
| 10 | | | | | 1 | | | | 1 | | | | | | | | |
| 11 | | | | | 1 | | | | 1 | | | | | | | | |
| 12 | | | | | 1 | | | | 1 | | | | | | | | |
| 13 | | | | | 1 | | | | 1 | | | | | | | | |
| 14 | | | | | 1 | | | | 1 | | | | | | | | |
| 15 | | | | | 1 | | | | 1 | | | | | | | | |
| 16 | | | | | 1 | | | | 1 | | | | | | | | |
| 17 | | | | | 1 | | | | 1 | | | | | | | | |
| 18 | | | | | 1 | | | | 1 | | | | | | | | |
| 19 | | | | | 1 | | | | 1 | | | | | | | | |
| 20 | | | | | 1 | | | | 1 | | | | | | | | |
| 21 | | | | | 1 | | | | 1 | | | | | | | | |
| 22 | | | | | 1 | | 1 | | | | | | | | | | |
| 23 | | | | | 1 | | 1 | | | | | | | | | | |
| 24 | | | | | 1 | | | 1 | | | | | | | | | |
| 25 | | | | | 1 | | | 1 | | | | | | | | | |
| Totals | 4 | 4 | 0 | 0 | 21 | 2 | 4 | 0 | 0 | 17 | 0 | 0 | 2 | | | | |
| | | Total Class Cover: | | | | | | | | | | | | | | | |
| | | Native | | | 16 | | | | | | | | | | | | |
| | | non-native | | | 0 | | | | | | | | | | | | |
| | | no vegetation | | | 84 | | | | | | | | | | | | |

| Reach: 10 | | | | | | | | | | | | | | | | | |
|--------------------|----------------|-------------|----------------|-----------|-----------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----|------------------|-------------|-------|
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| Reading pe | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | |
| | Brassica nigra | Cyperus sp. | Plantago major | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with algae | geotech mat | trash |
| 1 | | | | | | | | 1 | | | | | | | | | 1 |
| 2 | | | | | | | | 1 | | | | | | | | | 1 |
| 3 | | | | | | | | 1 | | | | | | | | | 1 |
| 4 | | | | | | | | 1 | | | | | | | | | 1 |
| 5 | | | | | | | | 1 | | | | | | | | | 1 |
| 6 | | | | | | | | 1 | | | | | | | | | 1 |
| 7 | | | | | | | | 1 | | | | | | | | | 1 |
| 8 | | | | | | | | 1 | | | | | | | | | 1 |
| 9 | | | | | | | | 1 | | | | | | | | | 1 |
| 10 | | | | | | | | 1 | | | | | | | | | 1 |
| 11 | | | | | | | | 1 | | | | | | | | | 1 |
| 12 | | | | | | | | 1 | | | | | | | | | 1 |
| 13 | | | | | | | | 1 | | | | | | | | | 1 |
| 14 | 1 | | | | | 1 | | | | | | | | | | | 1 |
| 15 | | | | | | | | 1 | | | | | | | | | 1 |
| 16 | | | | | | | | 1 | | | | | | | | | 1 |
| 17 | | 1 | | | | 1 | | | | | | | | | | | 1 |
| 18 | | | | | | | | 1 | | | | | 1 | | | | |
| 19 | | | | | | | | 1 | | | | | 1 | | | | |
| 20 | | | | | | | | 1 | | | | | 1 | | | | |
| 21 | | | | | | | | 1 | | | | | 1 | | | | |
| 22 | | | | | | | | 1 | | | | | 1 | | | | |
| 23 | | | | | | | | 1 | | | | | 1 | | | | |
| 24 | | | | | | | | 1 | | | | | 1 | | | | |
| 25 | | | | | | | | 1 | | | | | 1 | | | | |
| 26 | | | | | | | | 1 | | | | | 1 | | | | |
| 27 | | | | | | | | 1 | | | | | 1 | | | | |
| 28 | | | | | | | | 1 | | | | | 1 | | | | |
| 29 | | | | | | | | 1 | | | | | 1 | | | | |
| 30 | | | | | | | | 1 | | | | | 1 | | | | |
| 31 | | | | | | | | 1 | | | | | 1 | | | | |
| 32 | | | | | | | | 1 | | | | | 1 | | | | |
| 33 | | | | | | | | 1 | | | | | 1 | | | | |
| 34 | | | | | | | | 1 | | | | | 1 | | | | |
| 35 | | | | 1 | | 1 | | | | | | | 1 | | | | |
| 36 | | | | 1 | | 1 | | | | | | | 1 | | | | |
| 37 | | | | 1 | | 1 | | | | | | | 1 | | | | |
| 38 | | | | 1 | | 1 | | | | | | | 1 | | | | |

| Reach: 10 | | | | | | | | | | | | | | | | | | |
|--------------------|----------------|-------------|----------------|-----------|-----------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----|------------------|-------------|-------|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | |
| Reading pe | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| | Brassica nigra | Cyperus sp. | Plantago major | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with algae | geotech mat | trash | |
| 39 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 40 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 41 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 42 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 43 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 44 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 45 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 46 | | | | | | | 1 | | | | | | 1 | | | | | |
| 47 | | | | | | | 1 | | | | | | 1 | | | | | |
| 48 | | | | | | | 1 | | | | | | 1 | | | | | |
| 49 | | | | | | | 1 | | | | | | 1 | | | | | |
| 50 | | | | | | | 1 | | | | | | 1 | | | | | |
| 51 | | | | | | | 1 | | | | | | 1 | | | | | |
| 52 | | | | | | | 1 | | | | | | 1 | | | | | |
| 53 | | | | | | | 1 | | | | | | 1 | | | | | |
| 54 | | | | | | | 1 | | | | | | 1 | | | | | |
| 55 | | | | | | | 1 | | | | 1 | | | | | | | |
| 56 | | | 1 | | | 1 | | | | | 1 | | | | | | | |
| 57 | | | | | | | 1 | | | | | | | | | | 1 | |
| 58 | | | | | | | 1 | | | | | | | | | 1 | | |
| 59 | | | | | | | 1 | | | | 1 | | | | | | | |
| 60 | | | | | | | 1 | | | | | | | | | 1 | | |
| 61 | | | | | | | 1 | | | | | | | | | 1 | | |
| 62 | | | | | | | 1 | | | | | | | | | 1 | | |
| 63 | | | | | | | 1 | | | | | | | | | 1 | | |
| 64 | | | 1 | | | 1 | | | | | | | | | | 1 | | |
| 65 | | | | | | | 1 | | | | | | | | | 1 | | |
| Totals | 1 | 1 | 2 | 11 | 11 | 4 | 0 | 50 | 0 | 0 | 3 | 0 | 37 | 0 | 0 | 24 | 1 | |
| Total Class Cover: | | | | | | | | | | | | | | | | | | |
| Native | | | | | 16.92308 | | | | | | | | | | | | | |
| non-native | | | | | 6.153846 | | | | | | | | | | | | | |
| no vegetation | | | | | 76.92308 | | | | | | | | | | | | | |

| Reach: 10 | | | | | | | | | | | | | | | |
|--------------------|----------------|---------------------------------|------------------|-----------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|--|
| Transect Number: 2 | | | | | | | | | | | | | | | |
| Reading pe | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Brassica nigra | Cerastium fontanum ssp. vulgare | non-native grass | Piptatherum miliaceum | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | |
| 1 | | | | | | | | 1 | 1 | | | | | | |
| 2 | | | | | | | | 1 | 1 | | | | | | |
| 3 | | | | | | | | 1 | 1 | | | | | | |
| 4 | | | | | | | | 1 | 1 | | | | | | |
| 5 | | | | | | | | 1 | 1 | | | | | | |
| 6 | | | | | | | | 1 | 1 | | | | | | |
| 7 | | | | | | | | 1 | 1 | | | | | | |
| 8 | | | | | | | | 1 | 1 | | | | | | |
| 9 | | | | | | | | 1 | 1 | | | | | | |
| 10 | | | | | | | | 1 | 1 | | | | | | |
| 11 | | | | | | | | 1 | 1 | | | | | | |
| 12 | | | | | | | | 1 | 1 | | | | | | |
| 13 | | | | | | | | 1 | 1 | | | | | | |
| 14 | | | | | | | | 1 | 1 | | | | | | |
| 15 | | | | | | | | 1 | 1 | | | | | | |
| 16 | | | | | | | | 1 | 1 | | | | | | |
| 17 | | | | | | | | 1 | 1 | | | | | | |
| 18 | 1 | | | | | 1 | | | 1 | | | | | | |
| 19 | | | | | | | | 1 | 1 | | | | | | |
| 20 | 1 | | | | | 1 | | | 1 | | | | | | |
| 21 | | | | | | | | 1 | 1 | | | | | | |
| 22 | 1 | | | | | 1 | | | 1 | | | | | | |
| 23 | | | | | | | | 1 | 1 | | | | | | |
| 24 | 1 | | | | | 1 | | | 1 | | | | | | |
| 25 | | | | | | | | 1 | 1 | | | | | | |
| 26 | | | | | | | | 1 | 1 | | | | | | |
| 27 | | | | | | | | 1 | 1 | | | | | | |
| 28 | 1 | | | | | 1 | | | 1 | | | | | | |
| 29 | | 1 | | | | 1 | | | 1 | | | | | | |
| 30 | | | | | | | | 1 | 1 | | | | | | |
| 31 | | | | | | | | 1 | | | 1 | | | | |
| 32 | | | | | | | | 1 | | | 1 | | | | |
| 33 | | | | | | | | 1 | | | 1 | | | | |
| 34 | | | | | | | | 1 | | | | | | 1 | |
| 35 | | | | | | | | 1 | | | | | | 1 | |

| Reach: 10 | | | | | | | | | | | | | | | |
|--------------------|----------------|---------------------------------|------------------|-----------------------|-----------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----|---|
| Transect Number: 2 | | | | | | | | | | | | | | | |
| Reading pe | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| | Brassica nigra | Cerastium fontanum ssp. vulgare | non-native grass | Piptatherum miliaceum | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | |
| 36 | | | | | | | | | 1 | | | | | | 1 |
| 37 | | | | | | | | | 1 | | | | | | 1 |
| 38 | | | | | | | | | 1 | | | | | | 1 |
| 39 | | | | | | | | | 1 | | | | | | 1 |
| 40 | | | | | | | | | 1 | | | | | | 1 |
| 41 | | | | | | | | | 1 | | | | 1 | | |
| 42 | | | | | | | | | 1 | | | | 1 | | |
| 43 | | | | | | | | | 1 | | | | 1 | | |
| 44 | | | | | | | | | 1 | | | | 1 | | |
| 45 | | | | 1 | | | 1 | | | | | | | | 1 |
| 46 | | | | | | | | | 1 | | | | | | 1 |
| 47 | | | | | | | | | 1 | | | | | | 1 |
| 48 | | | | | | | | | 1 | | | | | | 1 |
| 49 | | | | | | | | | 1 | | | | | | 1 |
| 50 | | | | | | | | | 1 | | | | | | 1 |
| 51 | | | | | | | | | 1 | | | | | | 1 |
| 52 | | | | | | | | | 1 | 1 | | | | | |
| 53 | | | | | | | | | 1 | 1 | | | | | |
| 54 | | | | | | | | | 1 | 1 | | | | | |
| 55 | | | | | | | | | 1 | 1 | | | | | |
| 56 | | | 1 | | | | 1 | | | 1 | | | | | |
| 57 | | | | | | | | | 1 | | | 1 | | | |
| 58 | | | | | | | | | 1 | | | 1 | | | |
| 59 | | | | | | | | | 1 | | | 1 | | | |
| 60 | | | | | | | | | 1 | | | 1 | | | |
| 61 | | | | | | | | | 1 | | | 1 | | | |
| 62 | | | | | | | | | 1 | | | 1 | | | |
| 63 | | | | | | | | | 1 | | | 1 | | | |
| 64 | | | | | | | | | 1 | | | 1 | | | |
| 65 | | | | | | | | | 1 | | | 1 | | | |
| 66 | | | 1 | | | | 1 | | | | | 1 | | | |
| 67 | | | 1 | | | | 1 | | | | | 1 | | | |
| 68 | | | | | | | | | 1 | | | 1 | | | |
| 69 | | | 1 | | | | 1 | | | | | 1 | | | |
| 70 | | | | | | | | | 1 | | | 1 | | | |

| Reach: 10 | | | | | | | | | | | | | | | |
|--------------------|----------------|---------------------------------|------------------|-----------------------|--------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----|--|
| Transect Number: 2 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| Reading pe | Brassica nigra | Cerastium fontanum ssp. vulgare | non-native grass | Piptatherum miliaceum | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | |
| 71 | | | | | | | | 1 | | | 1 | | | | |
| 72 | | | | | | | | 1 | | | 1 | | | | |
| 73 | | | | | | | | 1 | | | 1 | | | | |
| 74 | | | | | | | | 1 | 1 | | | | | | |
| Totals | 5 | 1 | 4 | 1 | 0 | 11 | 0 | 63 | 36 | 0 | 20 | 0 | 4 | 14 | |
| | | | | | Total Class Cover: | | | | | | | | | | |
| | | | | | Native | | | 0 | | | | | | | |
| | | | | | non-native | | | 14.86486 | | | | | | | |
| | | | | | no vegetation | | | 85.13514 | | | | | | | |

| Reach: 10 | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|-------------|-------------|------------|------|----------|-----------------------|--------------|-------------|---------------------|-------|-----|----------------------|-------------|
| Transect Number: 3 | | Native | Non-native | Both | No Plant | Bare | Rocky/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | geotech mat |
| Reading pe | Cyperus sp. | | | | | | | | | | | | |
| 1 | | | | | 1 | | | | | | | | 1 |
| 2 | | | | | 1 | | | | | | | | 1 |
| 3 | | | | | 1 | | | | | | | | 1 |
| 4 | | | | | 1 | | | | | | | | 1 |
| 5 | | | | | 1 | | | | | | | | 1 |
| 6 | | | | | 1 | | | | | | | | 1 |
| 7 | | | | | 1 | | | | | | | | 1 |
| 8 | | | | | 1 | | | | | | | | 1 |
| 9 | | | | | 1 | | | | | | | | 1 |
| 10 | | | | | 1 | | | | | | | | 1 |
| 11 | | | | | 1 | | | | | | | | 1 |
| 12 | | | | | 1 | | | | | | | | 1 |
| 13 | | | | | 1 | | | | | | | | 1 |
| 14 | | | | | 1 | | | | | | | | 1 |
| 15 | | | | | 1 | | | | | | | | 1 |
| 16 | | | | | 1 | | | | | | | | 1 |
| 17 | | | | | 1 | | | | | 1 | | | |
| 18 | | | | | 1 | | | | | 1 | | | |
| 19 | | | | | 1 | | | | | 1 | | | |
| 20 | | | | | 1 | | | | | 1 | | | |
| 21 | | | | | 1 | | | | | 1 | | | |
| 22 | | | | | 1 | | | | | 1 | | | |
| 23 | | | | | 1 | | | | | 1 | | | |
| 24 | | | | | 1 | | | | | 1 | | | |
| 25 | | | | | 1 | | | | | 1 | | | |
| 26 | | | | | 1 | | | | | 1 | | | |
| 27 | | | | | 1 | | | | | 1 | | | |
| 28 | | | | | 1 | | | | | 1 | | | |
| 29 | | | | | 1 | | | | | 1 | | | |
| 30 | | | | | 1 | | | | | 1 | | | |
| 31 | | | | | 1 | | | | | 1 | | | |
| 32 | | | | | 1 | | | | | 1 | | | |
| 33 | | | | | 1 | | | | | 1 | | | |
| 34 | | | | | 1 | | | | | 1 | | | |
| 35 | | | | | 1 | | | | | 1 | | | |
| 36 | | | | | 1 | | | | | 1 | | | |
| 37 | | | | | 1 | | | | | 1 | | | |
| 38 | | | | | 1 | | | | | 1 | | | |

| Reach: 10 | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|-------------|-------------|------------|------|----------|-----------------------|--------------|-------------|---------------------|-------|-----|----------------------|-------------|
| Transect Number: 3 | | Native | Non-native | Both | No Plant | Bare | Rocky/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | geotech mat |
| Reading pe | Cyperus sp. | | | | | | | | | | | | |
| 39 | | | | | 1 | | | | | 1 | | | |
| 40 | | | | | 1 | | | | | 1 | | | |
| 41 | | | | | 1 | | | | | 1 | | | |
| 42 | | | | | 1 | | | | | 1 | | | |
| 43 | | | | | 1 | | | | | 1 | | | |
| 44 | | | | | 1 | | | | | 1 | | | |
| 45 | | | | | 1 | | | | | 1 | | | |
| 46 | | | | | 1 | | | | | 1 | | | |
| 47 | | | | | 1 | | | | | 1 | | | |
| 48 | | | | | 1 | | | | | 1 | | | |
| 49 | | | | | 1 | | | | | 1 | | | |
| 50 | | | | | 1 | | | | | 1 | | | |
| 51 | | | | | 1 | | | | | 1 | | | |
| 52 | | | | | 1 | | | | | 1 | | | |
| 53 | | | | | 1 | | | | | 1 | | | |
| 54 | | | | | 1 | | | | | 1 | | | |
| 55 | | | | | 1 | | | | | 1 | | | |
| 56 | | | | | 1 | | | | | 1 | | | |
| 57 | 1 | | 1 | | | | | 1 | | | | | |
| 58 | | | | | 1 | | | 1 | | | | | |
| 59 | | | | | 1 | | | 1 | | | | | |
| 60 | | | | | 1 | | | 1 | | | | | |
| 61 | | | | | 1 | | | 1 | | | | | |
| 62 | | | | | 1 | | | 1 | | | | | |
| 63 | | | | | 1 | | | 1 | | | | | |
| 64 | | | | | 1 | | | 1 | | | | | |
| 65 | | | | | 1 | | | 1 | | | | | |
| 66 | | | | | 1 | | | | | | | | 1 |
| 67 | | | | | 1 | | | | | | | | 1 |
| 68 | | | | | 1 | | | | | | | | 1 |
| 69 | | | | | 1 | | | | | | | | 1 |
| 70 | | | | | 1 | | | | | | | | 1 |
| 71 | | | | | 1 | | | | | | | | 1 |
| 72 | | | | | 1 | | | | | | | | 1 |
| 73 | | | | | 1 | | | | | | | | 1 |
| 74 | | | | | 1 | | | | | | | | 1 |
| 75 | | | | | 1 | | | | | | | | 1 |
| Totals | 1 | 0 | 1 | 0 | 74 | 0 | 0 | 9 | 0 | 40 | 0 | 0 | 26 |

| | | | | | | | | | | | | | | | | |
|--------------------|-------------|--------------------|------------|----------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|-------------|--|--|--|
| Reach: 10 | | | | | | | | | | | | | | | | |
| Transect Number: 3 | | | | | | | | | | | | | | | | |
| | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| Reading pe | Cyperus sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | geotech mat | | | |
| | | | | | | | | | | | | | | | | |
| | | Total Class Cover: | | | | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | | | | |
| | | non-native | | 1.333333 | | | | | | | | | | | | |
| | | no vegetation | | 98.66667 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| Reach: 10 | | Class Cover | | | | Ground Cover Material | | | | | | |
|--------------------|------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|--------------------------|------------------|
| Transect Number: 4 | | | | | | | | | | | | |
| Reading pe | non-native grass | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | water with Lemna sp. mud | ungROUTED riprap |
| | | | | | | | | | | | | |
| 1 | | | | | 1 | | | | | | | 1 |
| 2 | | | | | 1 | | | | | | | 1 |
| 3 | | | | | 1 | | | | | | | 1 |
| 4 | | | | | 1 | | | | | | | 1 |
| 5 | | | | | 1 | | | | | | | 1 |
| 6 | | | | | 1 | | | | | | | 1 |
| 7 | | | | | 1 | | | | | | | 1 |
| 8 | | | | | 1 | | | | | | | 1 |
| 9 | | | | | 1 | | | | | | | 1 |
| 10 | | | | | 1 | | | | | | | 1 |
| 11 | | | | | 1 | | | | | | | 1 |
| 12 | | | | | 1 | | | | | | | 1 |
| 13 | | | | | 1 | | | | | | | 1 |
| 14 | | | | | 1 | | | | | | | 1 |
| 15 | | | | | 1 | | | | | | | 1 |
| 16 | | | | | 1 | | | | | | | 1 |
| 17 | | | | | 1 | | | | | | | 1 |
| 18 | | | | | 1 | | | | | | | 1 |
| 19 | | | | | 1 | | | | | | | 1 |
| 20 | | | | | 1 | | | | | | | 1 |
| 21 | | | | | 1 | | | | | | | 1 |
| 22 | | | | | 1 | | | | | | | 1 |
| 23 | | | | | 1 | | | | | | | 1 |
| 24 | 1 | | 1 | | | | | | | | | 1 |
| 25 | 1 | | 1 | | | | | | | | | 1 |
| 26 | 1 | | 1 | | | | | | | | | 1 |
| 27 | 1 | | 1 | | | | | | | | | 1 |
| 28 | 1 | | 1 | | | | | | | | | 1 |
| 29 | 1 | | 1 | | | | | | | | | 1 |
| 30 | 1 | | 1 | | | | | | | | | 1 |
| 31 | | | | | 1 | | | | | 1 | | |
| 32 | | | | | 1 | | | | | 1 | | |
| 33 | | | | | 1 | | | | | 1 | | |
| 34 | | | | | 1 | | | | | 1 | | |
| 35 | | | | | 1 | | | | | 1 | | |
| 36 | | | | | 1 | | | | | 1 | | |
| 37 | | | | | 1 | | | | | 1 | | |
| 38 | | | | | 1 | | | | | 1 | | |

| Reach: 10 | | Class Cover | | | | Ground Cover Material | | | | | | |
|--------------------|------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|--------------------------|------------------|
| Transect Number: 4 | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | water with Lemna sp. mud | ungROUTED riprap |
| Reading pe | non-native grass | | | | | | | | | | | |
| 39 | | | | | 1 | | | | | 1 | | |
| 40 | | | | | 1 | | | | | 1 | | |
| 41 | | | | | 1 | | | | | 1 | | |
| 42 | | | | | 1 | | | | | 1 | | |
| 43 | | | | | 1 | | | | | 1 | | |
| 44 | | | | | 1 | | | | | 1 | | |
| 45 | | | | | 1 | | | | | 1 | | |
| 46 | | | | | 1 | | | | | 1 | | |
| 47 | | | | | 1 | | | | | 1 | | |
| 48 | | | | | 1 | | | | | 1 | | |
| 49 | | | | | 1 | | | | | 1 | | |
| 50 | | | | | 1 | | | | | 1 | | |
| 51 | | | | | 1 | | | | | 1 | | |
| 52 | | | | | 1 | | | | | 1 | | |
| 53 | | 1 | | | | | | | | | 1 | |
| 54 | | | | | 1 | | | | | | 1 | |
| 55 | | | | | 1 | | | | | | 1 | |
| 56 | | | | | 1 | | | | | | 1 | |
| 57 | | | 1 | | | | | 1 | | | | |
| 58 | | | 1 | | | | | 1 | | | | |
| 59 | | | 1 | | | | | 1 | | | | |
| 60 | | | 1 | | | | | 1 | | | | |
| 61 | | | 1 | | | | | 1 | | | | |
| 62 | | | 1 | | | | | 1 | | | | |
| 63 | | | | | 1 | | | | | | | 1 |
| 64 | | | | | 1 | | | | | | | 1 |
| 65 | | | | | 1 | | | | | | | 1 |
| 66 | | | | | 1 | | | | | | | 1 |
| 67 | | | | | 1 | | | | | | | 1 |
| 68 | | | | | 1 | | | | | | | 1 |
| 69 | | | | | 1 | | | | | | | 1 |
| 70 | | | | | 1 | | | | | | | 1 |
| 71 | | | | | 1 | | | | | | | 1 |
| 72 | | | | | 1 | | | | | | | 1 |
| 73 | | | | | 1 | | | | | | | 1 |
| 74 | | | | | 1 | | | | | | | 1 |
| 75 | | | | | 1 | | | | | | | 1 |
| 76 | | | | | 1 | | | | | | | 1 |

| Reach: 10 | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|------------------|--------------------|------------|----------|-----------|-----------------------|-------------|-------------|---------------------|-----------|--------------------------|------------------|-----------|
| Transect Number: 4 | | | | | | | | | | | | | |
| Reading pe | non-native grass | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | water with Lemna sp. mud | ungrouted riprap | |
| 77 | | | | | 1 | | | | | | | 1 | |
| 78 | | | | | 1 | | | | | | | 1 | |
| 79 | | | | | 1 | | | | | | | 1 | |
| 80 | | | | | 1 | | | | | | | 1 | |
| 81 | | | | | 1 | | | | | | | 1 | |
| 82 | | | | | 1 | | | | | | | 1 | |
| 83 | | | | | 1 | | | | | | | 1 | |
| 84 | | | | | 1 | | | | | | | 1 | |
| 85 | | | | | 1 | | | | | | | 1 | |
| Totals | 7 | 1 | 13 | 0 | 71 | 0 | 0 | 6 | 0 | 22 | 0 | 4 | 53 |
| | | Total Class Cover: | | | | | | | | | | | |
| | | Native | | | 1.176471 | | | | | | | | |
| | | non-native | | | 15.29412 | | | | | | | | |
| | | no vegetation | | | 83.52941 | | | | | | | | |

| Reach: 12 | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
|--------------------|------------------|--------------------|---------------|-----------------------------|-------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| Reading pe | Mimulus guttatus | non-native grasses | Polygonum sp. | Salix gooddingii (seedling) | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap |
| 1 | | 1 | | | | | 1 | | | 1 | | | | | | | |
| 2 | | | | | | | | | 1 | | | | | | | | 1 |
| 3 | | | | | | | | | 1 | | | | | | | | 1 |
| 4 | | | | | | | | | 1 | | | | | | | | 1 |
| 5 | | | | | | | | | 1 | | | | | | | | 1 |
| 6 | | | | | | | | | 1 | | | | | | | | 1 |
| 7 | | | | | | | | | 1 | | | | | | | | 1 |
| 8 | | | | | | | | | 1 | | | | | | | | 1 |
| 9 | | | | | | | | | 1 | | | | | | | | 1 |
| 10 | | | | | | | | | 1 | | | | | | | | 1 |
| 11 | | | | | | | | | 1 | | | | | | | | 1 |
| 12 | | | | | | | | | 1 | | | | | | | | 1 |
| 13 | 1 | | 1 | | | | | 1 | | | | | | | 1 | | |
| 14 | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 15 | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 16 | | | | | | | | | 1 | | | | | 1 | | | |
| 17 | | | | | | | | | 1 | | | | | 1 | | | |
| 18 | | | | | | | | | 1 | | | | | 1 | | | |
| 19 | | | | | | | | | 1 | | | | | | | | |
| 20 | | | | | 1 | 1 | | | | | | 1 | | | 1 | | |
| 21 | | | | 1 | | 1 | | | | | | | | | 1 | | |
| 22 | | | | | | | | | 1 | | | | | | 1 | | |
| 23 | | | | | | | | | 1 | | | | | | 1 | | |
| 24 | | | | | | | | | 1 | | | | | | 1 | | |
| 25 | | | | | | | | | 1 | | | | | | 1 | | |
| 26 | | | | | | | | | 1 | | | | | | 1 | | |
| 27 | | | | | | | | | 1 | | | 1 | | | | | |
| 28 | | | | | | | | | 1 | | | 1 | | | | | |
| 29 | | | | | | | | | 1 | | | 1 | | | | | |
| 30 | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 31 | | | | | | | | | 1 | | | | | 1 | | | |
| 32 | | | | | | | | | 1 | | | | | 1 | | | |
| 33 | | | | | | | | | 1 | | | | | 1 | | | |
| 34 | | | | | | | | | 1 | | | | | 1 | | | |
| 35 | | | | | | | | | 1 | | | | | 1 | | | |
| 36 | | | | | | | | | 1 | | | | | 1 | | | |
| 37 | | | | | | | | | 1 | | | | | 1 | | | |

| Reach: 12 | | | | | | | | | | | | | | | | | | | | |
|--------------------|------------------|--------------------|---------------|-----------------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|--|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | | |
| Reading pe | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| | Mimulus guttatus | non-native grasses | Polygonum sp. | Salix gooddingii (seedling) | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | | | |
| 38 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 39 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 40 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 41 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 42 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 43 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 44 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 45 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 46 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 47 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 48 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 49 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 50 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 51 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 52 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 53 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 54 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 55 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 56 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 57 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 58 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 59 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 60 | | | | | | | | | 1 | | | | | 1 | | | | | | |
| 61 | | | | 1 | 1 | | 1 | | | | | | | | | 1 | | | | |
| 62 | | | | 1 | 1 | | 1 | | | | | | | | | 1 | | | | |
| 63 | | | | 1 | 1 | | 1 | | | | | | | | | 1 | | | | |
| 64 | | | | 1 | 1 | | 1 | | | | | | | | | 1 | | | | |
| 65 | | | | 1 | 1 | | 1 | | | | | | | | | 1 | | | | |
| 66 | | | | 1 | 1 | | 1 | | | | | | | | | 1 | | | | |
| 67 | | | | 1 | 1 | | 1 | | | | | | | | | 1 | | | | |
| 68 | | | | 1 | 1 | | 1 | | | | | | | | | 1 | | | | |
| 69 | | | | 1 | 1 | | 1 | | | | | | | | | 1 | | | | |
| 70 | | | | 1 | | | 1 | | | | | | | | | 1 | | | | |
| 71 | | | | 1 | | | 1 | | | | | | | | | 1 | | | | |
| 72 | | | | 1 | | | 1 | | | | | | | | | 1 | | | | |
| 73 | | | | 1 | | | 1 | | | | | | | | | 1 | | | | |
| 74 | | | | 1 | | | 1 | | | | | | | | | 1 | | | | |

| Reach: 12 | | | | | | | | | | | | | | | | | | | | |
|--------------------|------------------|--------------------|---------------|-----------------------------|-----------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|--|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | | |
| | | Class Cover | | | | | | | | Ground Cover Material | | | | | | | | | | |
| Reading pe | Mimulus guttatus | non-native grasses | Polygonum sp. | Salix gooddingii (seedling) | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | | | |
| 75 | | | | 1 | | 1 | | | | | | | | | 1 | | | | | |
| Totals | 1 | 1 | 1 | 16 | 13 | 20 | 1 | 1 | 53 | 1 | 0 | 4 | 0 | 36 | 23 | 0 | 11 | | | |
| | | | | | | Total Class Cover: | | | | | | | | | | | | | | |
| | | | | | | Native | | | 28 | | | | | | | | | | | |
| | | | | | | non-native | | | 2.66667 | | | | | | | | | | | |
| | | | | | | no vegetation | | | 70.66667 | | | | | | | | | | | |

| Reach: 12 | | | | | | | | | | | | | | | | | | |
|--------------------|------------------|-------------------|---------------|------------------|-----------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|-------|--|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | |
| Reading pe | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| | non-native grass | Oxalis pes-caprae | Polygonum sp. | Salix gooddingii | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | trash | |
| 1 | | | | | | | | 1 | | | | | | | | | | |
| 2 | 1 | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 3 | | | | | | | | 1 | | | | | | | | | 1 | |
| 4 | | | | | | | | 1 | | | | | | | | | 1 | |
| 5 | | | | | | | | 1 | | | | | | | | | 1 | |
| 6 | | | | | | | | 1 | | | | | | | | | 1 | |
| 7 | | | | 1 | 1 | | | | | | | | | | | | 1 | |
| 8 | | | | 1 | 1 | | | | | | | | | | | | 1 | |
| 9 | | | | 1 | 1 | | | | | | | | | | | | 1 | |
| 10 | | | | 1 | 1 | | | | | | | | | | | | 1 | |
| 11 | | | | 1 | 1 | | | | | | | | | | | | 1 | |
| 12 | | | | 1 | 1 | | | | | | | | | | | | 1 | |
| 13 | | | | 1 | 1 | | | | | | | | | | | | 1 | |
| 14 | | | | 1 | 1 | | | | | | | | | | | | 1 | |
| 15 | | | | 1 | 1 | | | | | | | | | | | | 1 | |
| 16 | | | | 1 | 1 | | | | | | | | | | | | 1 | |
| 17 | | | | 1 | 1 | | | | | | | | | | | | 1 | |
| 18 | | | | 1 | 1 | | | | | | | | | | | | 1 | |
| 19 | | | | 1 | 1 | | | | | | | | | | | | 1 | |
| 20 | | | | 1 | | | 1 | | | | | | | 1 | | | | |
| 21 | | | | 1 | | | 1 | | | | | | | 1 | | | | |
| 22 | | | | 1 | | | 1 | | | | | | | 1 | | | | |
| 23 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 24 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 25 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 26 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 27 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 28 | | | | 1 | 1 | | | | | | | | | 1 | | | | |
| 29 | | | | 1 | 1 | | | | | | | | | 1 | | | | |
| 30 | | | | 1 | 1 | | | | | | | | | 1 | | | | |
| 31 | | | | 1 | 1 | | | | | | | | | 1 | | | | |
| 32 | | | | 1 | 1 | | | | | | | | | 1 | | | | |
| 33 | | | | 1 | 1 | | | | | | | | | 1 | | | | |
| 34 | | | | 1 | 1 | | | | | | | | | 1 | | | | |
| 35 | | | | 1 | 1 | | | | | | | | | 1 | | | | |
| 36 | | | | 1 | 1 | | | | | | | | | 1 | | | | |
| 37 | | | | 1 | 1 | | | | | | | | | 1 | | | | |
| 38 | | | | 1 | 1 | | | | | | | | | 1 | | | | |

| Reach: 12 | | | | | | | | | | | | | | | | | | |
|--------------------|------------------|-------------------|---------------|------------------|-----------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|-------|---|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | |
| Reading pe | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| | non-native grass | Oxalis pes-caprae | Polygonum sp. | Salix gooddingii | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | trash | |
| 39 | | | | 1 | 1 | | | | | | | | | | | | | 1 |
| 40 | | | | 1 | 1 | | | | | | | | | | | | | 1 |
| 41 | | | | 1 | 1 | | | | | | | | | | | | | 1 |
| 42 | | | | 1 | 1 | | | | | | | | | | | | | 1 |
| 43 | | | | 1 | 1 | | | | | | | | | | | | | 1 |
| 44 | | | | 1 | 1 | | | | | | | 1 | | | | | | |
| 45 | | | | 1 | 1 | | | | | | | 1 | | | | | | |
| 46 | | | | 1 | 1 | | | | | | | 1 | | | | | | |
| 47 | | | | 1 | 1 | | | | | | | 1 | | | | | | |
| 48 | | | | 1 | 1 | | | | | | | 1 | | | | | | |
| 49 | | | | 1 | 1 | | | | | | | 1 | | | | | | |
| 50 | | | | 1 | 1 | | | | | | | 1 | | | | | | |
| 51 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 52 | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| 53 | | | | 1 | 1 | | | | | | | | | | | | | |
| 54 | | | | 1 | 1 | | | | | | | 1 | | | | | | |
| 55 | | | | 1 | 1 | | | | | | | | | | | | | |
| 56 | | | | 1 | 1 | | | | | | | | | | | | | |
| 57 | | | | 1 | 1 | | | | | | | | | | | | | |
| 58 | | | | 1 | 1 | | | | | | | | | | | | | |
| 59 | | | | 1 | 1 | | | | | | | | | | | | | |
| 60 | | | | 1 | 1 | | | | | | | | | | | | | |
| 61 | | | | 1 | 1 | | | | | | | | | | | | | |
| 62 | | | | 1 | 1 | | | | | | | | | | | | | |
| 63 | | | | 1 | 1 | | | | | | | | | | | | | |
| 64 | | | | 1 | 1 | | | | | | | | | | | | | |
| 65 | | | | 1 | 1 | | | | | | | | | | | | | |
| 66 | | | | 1 | 1 | | | | | | | | | | | | | |
| 67 | | | | 1 | 1 | | | | | | | | | | | | | |
| 68 | | | | 1 | 1 | | | | | | | | | | | | | |
| 69 | | | | 1 | 1 | | | | | | | | | | | | | |
| 70 | | | | 1 | 1 | | | | | | | | | | | | | |
| 71 | | | | 1 | 1 | | | | | | | | | | | | | 1 |
| 72 | | | | 1 | 1 | | | | | | | | | | | | | 1 |
| 73 | | | | 1 | 1 | | | | | | | | | | | | | 1 |
| 74 | | | | 1 | 1 | | | | | | | | | | | | | 1 |
| 75 | | | | 1 | 1 | | | | | | | | | | | | | 1 |
| 76 | | | | 1 | 1 | | | | | | | | | | | | | 1 |

| Reach: 12 | | | | | | | | | | | | | | | | | |
|--------------------|------------------|-------------------|---------------|------------------|-----------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|-------|
| Transect Number: 2 | | | | | | | | | | | | | | | | | |
| Reading pe | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | |
| | non-native grass | Oxalis pes-caprae | Polygonum sp. | Salix gooddingii | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | trash |
| 77 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 78 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 79 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 80 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 81 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 82 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 83 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 84 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 85 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 86 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 87 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 88 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 89 | | | | 1 | 1 | | | | | | | | 1 | | | | |
| 90 | | | | 1 | 1 | | | | | | | | | 1 | | | |
| 91 | | | | 1 | 1 | | | | 1 | | | | | | | | |
| 92 | | | | 1 | 1 | | | | | | | | | 1 | | | |
| 93 | | | | 1 | 1 | | | | | | | | | | | | 1 |
| 94 | | | | 1 | 1 | | | | | | | | | | | | 1 |
| 95 | | | | 1 | 1 | | | | | | | | | | | | |
| 96 | | | 1 | 1 | | | 1 | | | | 1 | | | | | | |
| 97 | | | 1 | 1 | | | 1 | | | | 1 | | | | | | |
| 98 | | | 1 | 1 | | | 1 | | | | 1 | | | | | | |
| 99 | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 100 | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 101 | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 102 | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 103 | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 104 | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 105 | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 106 | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 107 | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 108 | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 109 | | | 1 | | | 1 | | | | | 1 | | | | | | |
| 110 | | | 1 | | | 1 | | | | | 1 | | | | | | |
| Totals | 1 | 1 | 15 | 92 | 86 | 13 | 6 | 5 | 0 | 1 | 35 | 8 | 26 | 21 | 0 | 17 | |
| Total Class Cover: | | | | | | | | | | | | | | | | | |
| Native | | | | | 83.63636 | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | |
|--------------------|------------------|-------------------|---------------|------------------|--|---------------|------------|----------|----------|--|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|-------|
| Reach: 12 | | | | | | | | | | | | | | | | | | | |
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | |
| | | | | | | Class Cover | | | | | Ground Cover Material | | | | | | | | |
| Reading pe | non-native grass | Oxalis pes-caprae | Polygonum sp. | Salix gooddingii | | Native | Non-native | Both | No Plant | | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | trash |
| | | | | | | non-native | | 17.27273 | | | | | | | | | | | |
| | | | | | | no vegetation | | 4.545455 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

| Reach: 13 | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|
| Transect Number: 1 | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna.sp. | grouted riprap |
| Reading pe | non-native grass | | | | | | | | | | | | |
| 1 | 1 | | 1 | | | | | 1 | | | | | |
| 2 | | | | | 1 | | | 1 | | | | | |
| 3 | | | | | 1 | 1 | | | | | | | |
| 4 | 1 | | 1 | | | | | 1 | | | | | |
| 5 | 1 | | 1 | | | | | 1 | | | | | |
| 6 | 1 | | 1 | | | | | 1 | | | | | |
| 7 | 1 | | 1 | | | | | 1 | | | | | |
| 8 | 1 | | 1 | | | | | 1 | | | | | |
| 9 | 1 | | 1 | | | | | 1 | | | | | |
| 10 | 1 | | 1 | | | | | 1 | | | | | |
| 11 | 1 | | 1 | | | | | 1 | | | | | |
| 12 | 1 | | 1 | | | | | 1 | | | | | |
| 13 | 1 | | 1 | | | | | 1 | | | | | |
| 14 | 1 | | 1 | | | | | 1 | | | | | |
| 15 | 1 | | 1 | | | | | 1 | | | | | |
| 16 | 1 | | 1 | | | | | 1 | | | | | |
| 17 | 1 | | 1 | | | | | 1 | | | | | |
| 18 | 1 | | 1 | | | | | 1 | | | | | |
| 19 | 1 | | 1 | | | | | 1 | | | | | |
| 20 | 1 | | 1 | | | | | 1 | | | | | |
| 21 | 1 | | 1 | | | | | 1 | | | | | |
| 22 | | | | | 1 | | | 1 | | | | | |
| 23 | | | | | 1 | | | 1 | | | | | |
| 24 | | | | | 1 | | | 1 | | | | | |
| 25 | 1 | | 1 | | | | | 1 | | | | | |
| 26 | | | | | 1 | 1 | | | | | | | |
| 27 | 1 | | 1 | | | | | 1 | | | | | |
| 28 | 1 | | 1 | | | | | 1 | | | | | |
| 29 | 1 | | 1 | | | 1 | | | | | | | |
| 30 | 1 | | 1 | | | | | 1 | | | | | |
| 31 | 1 | | 1 | | | | | 1 | | | | | |
| 32 | 1 | | 1 | | | | | 1 | | | | | |
| 33 | | | | | 1 | 1 | | | | | | | |
| 34 | 1 | | 1 | | | | | 1 | | | | | |
| 35 | 1 | | 1 | | | | | 1 | | | | | |
| 36 | 1 | | 1 | | | | | 1 | | | | | |
| 37 | 1 | | 1 | | | | | 1 | | | | | |
| 38 | 1 | | 1 | | | | | 1 | | | | | |

| Reach: 13 | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|
| Transect Number: 1 | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna-sp. | grouted riprap |
| Reading pe | non-native grass | | | | | | | | | | | | |
| 39 | | | | | 1 | 1 | | | | | | | |
| 40 | | | | | 1 | | 1 | | | | | | |
| Totals | 31 | 0 | 31 | 0 | 9 | 5 | 1 | 34 | 0 | 0 | 0 | 0 | 0 |
| | | Total Class Cover: | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | |
| | | non-native | | 77.5 | | | | | | | | | |
| | | no vegetation | | 22.5 | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

| Reach: 13 | | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|-------------------------|------------------|-------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|--|---|--|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| | Artemisia californica | Lepidospartum squamatum | non-native grass | Sambucus mexicana | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | | | |
| 1 | | | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 2 | | | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 3 | | | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 4 | | 1 | | | 1 | | | | | | 1 | | | | | | | | |
| 5 | | 1 | | | 1 | | | | | | 1 | | | | | | | | |
| 6 | | 1 | | | 1 | | | | | | 1 | | | | | | | | |
| 7 | | 1 | | | 1 | | | | | | 1 | | | | | | | | |
| 8 | | 1 | | | 1 | | | | | | 1 | | | | | | | | |
| 9 | | | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 10 | | 1 | | | 1 | | | | | | 1 | | | | | | | | |
| 11 | | 1 | | | 1 | | | | | | 1 | | | | | | | | |
| 12 | | 1 | | | 1 | | | | | | 1 | | | | | | | | |
| 13 | | | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 14 | | | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 15 | | | | | | | | | | | 1 | | | | | | | | |
| 16 | | | | | | | | | | | 1 | | | | | | | | |
| 17 | | | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | 1 | |
| 19 | | | 1 | | | 1 | | | | | | | | | | | | 1 | |
| 20 | | | 1 | 1 | | | | | | | 1 | | | | | | | | |
| 21 | | | 1 | 1 | | | | | | | 1 | | | | | | | | |
| 22 | | | | 1 | | 1 | | | | | 1 | | | | | | | | |
| 23 | | | 1 | 1 | | | | | | | 1 | | | | | | | | |
| 24 | | | | 1 | | 1 | | | | | 1 | | | | | | | | |
| 25 | | | 1 | 1 | | | | | | | 1 | | | | | | | | |
| 26 | | | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 27 | | | | | | | | | | | 1 | | | | | | | | |
| 28 | | | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 29 | 1 | | 1 | | | | | | | | 1 | | | | | | | | |
| 30 | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 31 | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 32 | 1 | | | | | 1 | | | | | 1 | | | | | | | | |
| 33 | 1 | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 34 | 1 | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 35 | 1 | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 36 | | 1 | 1 | | | | | | | | 1 | | | | | | | | |
| 37 | 1 | 1 | | | | 1 | | | | | 1 | | | | | | | | |
| 38 | 1 | | | | | 1 | | | | | 1 | | | | | | | | |

| Reach: 13 | | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|-------------------------|------------------|-------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|--|--|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Artemisia californica | Lepidospartum squamatum | non-native grass | Sambucus mexicana | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | | |
| 39 | 1 | | | | 1 | | | | | | 1 | | | | | | | |
| 40 | 1 | | | | 1 | | | | | | 1 | | | | | | | |
| Totals | 11 | 13 | 16 | 6 | 20 | 10 | 6 | 4 | 1 | 0 | 37 | 0 | 0 | 2 | 0 | 0 | | |
| | | | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | | | Native | | 65 | | | | | | | | | | | |
| | | | | | non-native | | 40 | | | | | | | | | | | |
| | | | | | no vegetation | | 10 | | | | | | | | | | | |

| Reach: 13 | | | | | | | | | | | | | | | | | |
|--------------------|------------------|-----------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------------|--|--|--|
| Transect Number: 3 | | | | | | | | | | | | | | | | | |
| Reading pe | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| | non-native grass | Wahingtonia sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | grouted riprap | | | |
| 1 | | | | | | 1 | | 1 | | | | | | | | | |
| 2 | | | | | | 1 | | 1 | | | | | | | | | |
| 3 | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 4 | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 5 | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 6 | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 7 | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 8 | | | | | | 1 | | | 1 | | | | | | | | |
| 9 | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 10 | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 11 | | | | | | 1 | | | 1 | | | | | | | | |
| 12 | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 13 | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 14 | | | | | | 1 | | | | | | 1 | | | | | |
| 15 | | | | | | 1 | | | | | | 1 | | | | | |
| 16 | | | | | | 1 | | | 1 | | | | | | | | |
| 17 | | | | | | 1 | | | 1 | | | | | | | | |
| 18 | | | | | | 1 | | | 1 | | | | | | | | |
| 19 | | | | | | 1 | | | 1 | | | | | | | | |
| 20 | | | | | | 1 | | | | | | 1 | | | | | |
| 21 | | | | | | 1 | | | 1 | | | | | | | | |
| 22 | | | | | | 1 | | | | | | 1 | | | | | |
| 23 | | 1 | | 1 | | | | | 1 | | | | | | | | |
| 24 | | | | | | 1 | | | 1 | | | | | | | | |
| 25 | | | | | | 1 | | | | | | 1 | | | | | |
| 26 | | | | | | 1 | | | 1 | | | | | | | | |
| 27 | | | | | | 1 | | | 1 | | | | | | | | |
| 28 | | | | | | 1 | | | 1 | | | | | | | | |
| 29 | | | | | | 1 | | | 1 | | | | | | | | |
| 30 | | | | | | 1 | | 1 | | | | | | | | | |
| 31 | | | | | | 1 | | | 1 | | | | | | | | |
| 32 | | | | | | 1 | | | 1 | | | | | | | | |
| 33 | | | | | | 1 | | | 1 | | | | | | | | |
| 34 | | | | | | 1 | | | 1 | | | | | | | | |
| 35 | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 36 | 1 | | | 1 | | | | | 1 | | | | | | | | |
| 37 | | | | | | 1 | | 1 | | | | | | | | | |
| 38 | | | | | | 1 | | 1 | | | | | | | | | |

| Reach: 14 | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
|--------------------|----------------|--------------------|-------------|-----------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|---|
| Transect Number: 1 | | | | | | | | | | | | | | | |
| Reading pe | Brassica nigra | non-native grasses | Ribes aurem | Salix laevigata | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | |
| 1 | | | | 1 | 1 | | | | | | | | | | 1 |
| 2 | | | | 1 | 1 | | | | | | | | | | 1 |
| 3 | | | | 1 | 1 | | | | | | 1 | | | | |
| 4 | | 1 | | 1 | | | 1 | | | | | | | | 1 |
| 5 | | | | 1 | 1 | | | | | | | | | | 1 |
| 6 | | | | 1 | 1 | | | | | | | | | | 1 |
| 7 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 8 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 9 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 10 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 11 | | 1 | | 1 | | | 1 | | | | 1 | | | | |
| 12 | | | | 1 | 1 | | | | | | | | | | 1 |
| 13 | | | | 1 | 1 | | | | | | | | | | 1 |
| 14 | | | | 1 | 1 | | | | | | | | | | 1 |
| 15 | | | | 1 | 1 | | | | | | | | | | 1 |
| 16 | 1 | | | 1 | | | 1 | | | | | | | | 1 |
| 17 | 1 | | | 1 | | | 1 | | | | | | | | 1 |
| 18 | 1 | | | 1 | | | 1 | | | | | | | | 1 |
| 19 | | 1 | | 1 | | | 1 | | | | | | | | 1 |
| 20 | | 1 | | 1 | | | 1 | | | | | | | | 1 |
| 21 | | 1 | | 1 | | | 1 | | | | | | | | 1 |
| 22 | | 1 | | | | 1 | | | | | | | | | 1 |
| 23 | 1 | 1 | | | | 1 | | | | | | | | | 1 |
| 24 | 1 | 1 | | | | 1 | | | | | | | | | 1 |
| 25 | | 1 | | | | 1 | | | | | | | | | 1 |
| 26 | | | | | | | | 1 | | | | | | | 1 |
| 27 | | | | | | | | 1 | | | | | | | 1 |
| 28 | | | | | | | | 1 | | | | | | | 1 |
| 29 | | | | | | | | 1 | | | | | | | 1 |
| 30 | | 1 | 1 | | | | 1 | | | | 1 | | | | |
| 31 | | 1 | 1 | | | | 1 | | | | 1 | | | | |
| 32 | | 1 | 1 | | | | 1 | | | | | | | | 1 |
| 33 | | 1 | | | | 1 | | | | | | | | | 1 |
| 34 | 1 | | | | | 1 | | | | | | | | | 1 |
| 35 | 1 | 1 | | | | 1 | | | | | | | | | 1 |
| Totals | 7 | 18 | 3 | 21 | 9 | 7 | 15 | 4 | 0 | 0 | 8 | 0 | 0 | 27 | 0 |
| | | | | | Total Class Cover: | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|--------------------|----------------|--------------------|-------------|-----------------|---------------|------------|----------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|--|--|--|
| Reach: 14 | | | | | | | | | | | | | | | | | |
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading pe | Brassica nigra | non-native grasses | Ribes aurem | Salix laevigata | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | | | |
| | | | | | Native | | 68.57143 | | | | | | | | | | |
| | | | | | non-native | | 62.85714 | | | | | | | | | | |
| | | | | | no vegetation | | 11.42857 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| Reach: 14 | | | | | | | | | | | | | |
|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 2 - not sampled during post clearance surveys because the area had not been cleared | | | | | | | | | | | | | |
| Reading per foot: | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 1 | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | |
| 33 | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | |
| 36 | | | | | | | | | | | | | |
| 37 | | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | |

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|--|---|--------------------|------------|------|----------|--|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|
| Reach: 14 | | | | | | | | | | | | | | |
| Transect Number: 2 - not sampled during post clearance surveys because the area had not been cleared | | | | | | | | | | | | | | |
| | | Class Cover | | | | | Ground Cover Material | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | |
| 39 | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | |
| 41 | | | | | | | | | | | | | | |
| 42 | | | | | | | | | | | | | | |
| 43 | | | | | | | | | | | | | | |
| 44 | | | | | | | | | | | | | | |
| 45 | | | | | | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Total Class Cover: | | | | | | | | | | | | |
| | | Native | | | 0 | | | | | | | | | |
| | | non-native | | | 0 | | | | | | | | | |
| | | no vegetation | | | 0 | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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| Reach: 15 | | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------|------|
| Transect Number: 1 | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Cyperus sp. | non-native grass | Wahingtonia robusta | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | concrete | sand |
| 1 | | | | | | | 1 | | | | | | | | | 1 |
| 2 | | | | | | | 1 | | | | | | | | | 1 |
| 3 | | | | | | | 1 | | | | | | | | | 1 |
| 4 | | | | | | | 1 | | | | | | | | | 1 |
| 5 | | | | | | | 1 | | | | | | | | | 1 |
| 6 | | | | | | | 1 | | | | | | | | | 1 |
| 7 | | | | | | | 1 | | | | | | | | | 1 |
| 8 | | | | | | | 1 | | | | | | | | | 1 |
| 9 | | | | | | | 1 | | | | | | | | | 1 |
| 10 | | | | | | | 1 | | | | | | | | | 1 |
| 11 | | | | | | | 1 | | | | | | | | | 1 |
| 12 | | | | | | | 1 | | | | | | | | | 1 |
| 13 | | | | | | | 1 | | | | | | | | | 1 |
| 14 | | | | | | | 1 | | | | | | | | | 1 |
| 15 | | | | | | | 1 | | | | | | | | | 1 |
| 16 | | | | | | | 1 | | | | | | | | | 1 |
| 17 | | | | | | | 1 | | | | | | | | | 1 |
| 18 | | | | | | | 1 | | | | | | | | | 1 |
| 19 | | | | | | | 1 | | | | | | | | | 1 |
| 20 | | | | | | | 1 | | | | | | | | | 1 |
| 21 | | | | | | | 1 | | | | | | | | | 1 |
| 22 | | | | | | | 1 | | | | | 1 | | | | |
| 23 | | | | | | | 1 | | | | | 1 | | | | |
| 24 | | | | | | | 1 | | | | | | | | | 1 |
| 25 | | | | | | | 1 | | | | | 1 | | | | |
| 26 | | | | | | | 1 | | | | | 1 | | | | |
| 27 | | | | | | | 1 | | | | | 1 | | | | |
| 28 | | | | | | | 1 | | | | | 1 | | | | |
| 29 | | | | | | | 1 | | | | | 1 | | | | |
| 30 | | | | | | | 1 | | | | | 1 | | | | |
| 31 | | | | | | | 1 | | | | | 1 | | | | |
| 32 | | | | | | | 1 | | | | | 1 | | | | |
| 33 | | | | | | | 1 | | | | | 1 | | | | |
| 34 | | | | | | | 1 | | | | | 1 | | | | |
| 35 | | | | | | | 1 | | | | | 1 | | | | |
| 36 | | | | | | | 1 | | | | | 1 | | | | |
| 37 | | | | | | | 1 | | | | | 1 | | | | |
| 38 | | | | | | | 1 | | | | | 1 | | | | |

| Reach: 15 | | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------|------|
| Transect Number: 1 | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Cyperus sp. | non-native grass | Wahingtonia robusta | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | concrete | sand |
| 39 | | | | | | | 1 | | | | | 1 | | | | |
| 40 | | | | | | | 1 | | | | | 1 | | | | |
| 41 | | | | | | | 1 | | | | | 1 | | | | |
| 42 | | | | | | | 1 | | | | | 1 | | | | |
| 43 | | | | | | | 1 | | | | | 1 | | | | |
| 44 | | | | | | | 1 | | | | | 1 | | | | |
| 45 | | | | | | | 1 | | | | | 1 | | | | |
| 46 | | | | | | | 1 | | | | | 1 | | | | |
| 47 | | | | | | | 1 | | | | | 1 | | | | |
| 48 | | 1 | | | 1 | | | | | 1 | | | | | | |
| 49 | 1 | | | | 1 | | | | | 1 | | | | | | |
| 50 | 1 | 1 | | | 1 | | | | | 1 | | | | | | |
| 51 | | 1 | 1 | | 1 | | | 1 | | | | | | | | |
| 52 | 1 | | | | 1 | | | 1 | | | | | | | | |
| 53 | | | | | | | 1 | | | | | 1 | | | | |
| 54 | | | | | | | 1 | | | | | 1 | | | | |
| 55 | | | | | | | 1 | | | | | 1 | | | | |
| 56 | | | | | | | 1 | | | | | 1 | | | | |
| 57 | | | | | | | 1 | | | | | 1 | | | | |
| 58 | | | | | | | 1 | | | | | 1 | | | | |
| 59 | | | | | | | 1 | | | | | 1 | | | | |
| 60 | | | | | | | 1 | | | | | 1 | | | | |
| 61 | | | | | | | 1 | | | | | 1 | | | | |
| 62 | | | | | | | 1 | | | | | 1 | | | | |
| 63 | | | | | | | 1 | | | | | | | | 1 | |
| 64 | | | | | | | 1 | | | | | | | | 1 | |
| 65 | | | | | | | 1 | | | | | | | | 1 | |
| 66 | | | | | | | 1 | | | | | | | | 1 | |
| 67 | | | | | | | 1 | | | | | | | | 1 | |
| 68 | | | | | | | 1 | | | | | | | | 1 | |
| 69 | | | | | | | 1 | | | | | | | | 1 | |
| 70 | | | | | | | 1 | | | | | | | | 1 | |
| 71 | | | | | | | 1 | | | | | | | | 1 | |
| 72 | | | | | | | 1 | | | | | | | | 1 | |
| 73 | | | | | | | 1 | | | | | | | | 1 | |
| 74 | | | | | | | 1 | | | | | | | | 1 | |
| 75 | | | | | | | 1 | | | | | | | | 1 | |
| 76 | | | | | | | 1 | | | | | | | | 1 | |

| Reach: 15 | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|------------------|---------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------|------|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Cyperus sp. | non-native grass | Wahingtonia robusta | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | concrete | sand | |
| 77 | | | | | | | 1 | | | | | | | | | 1 | |
| 78 | | | | | | | 1 | | | | | | | | | 1 | |
| 79 | | | | | | | 1 | | | | | | | | | 1 | |
| 80 | | | | | | | 1 | | | | | | | | | 1 | |
| 81 | | | | | | | 1 | | | | | | | | | 1 | |
| 82 | | | | | | | 1 | | | | | | | | | 1 | |
| 83 | | | | | | | 1 | | | | | | | | | 1 | |
| 84 | | | | | | | 1 | | | | | | | | | 1 | |
| 85 | | | | | | | 1 | | | | | | | | | 1 | |
| Totals | 3 | 3 | 1 | 0 | 5 | 0 | 80 | 2 | 0 | 3 | 0 | 35 | 0 | 0 | 44 | 1 | |
| | | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | | Native | | | 0 | | | | | | | | | | |
| | | | | non-native | | | 5.882353 | | | | | | | | | | |
| | | | | no vegetation | | | 94.11765 | | | | | | | | | | |

| Reach: 15 | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------|--|--|---|
| Transect Number: 2 | | | | | | | | | | | | | | | | | |
| Reading pe | Distichlis spicata | Typha sp. | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| | | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | concrete | | | |
| 1 | | | | | | | 1 | | | | | | | | | | 1 |
| 2 | | | | | | | 1 | | | | | | | | | | 1 |
| 3 | | | | | | | 1 | | | | | | | | | | 1 |
| 4 | | | | | | | 1 | | | | | | | | | | 1 |
| 5 | | | | | | | 1 | | | | | | | | | | 1 |
| 6 | | | | | | | 1 | | | | | | | | | | 1 |
| 7 | | | | | | | 1 | | | | | | | | | | 1 |
| 8 | | | | | | | 1 | | | | | | | | | | 1 |
| 9 | | | | | | | 1 | | | | | | | | | | 1 |
| 10 | | | | | | | 1 | | | | | | | | | | 1 |
| 11 | | | | | | | 1 | | | | | | | | | | 1 |
| 12 | | | | | | | 1 | | | | | | | | | | 1 |
| 13 | | | | | | | 1 | | | | | | | | | | 1 |
| 14 | | | | | | | 1 | | | | | | | | | | 1 |
| 15 | | | | | | | 1 | | | | | | | | | | 1 |
| 16 | | | | | | | 1 | | | | | | 1 | | | | |
| 17 | | | | | | | 1 | | | | | | 1 | | | | |
| 18 | | | | | | | 1 | | | | | | 1 | | | | |
| 19 | | | | | | | 1 | | | | | | 1 | | | | |
| 20 | | | | | | | 1 | | | | | | 1 | | | | |
| 21 | | | | | | | 1 | | | | | | 1 | | | | |
| 22 | | | | | | | 1 | | | | | | 1 | | | | |
| 23 | | | | | | | | | | | | | 1 | | | | |
| 24 | | | | | | | | | | | | | 1 | | | | |
| 25 | | | | | | | 1 | | | | | | 1 | | | | |
| 26 | | | | | | | 1 | | | | | | 1 | | | | |
| 27 | | | | | | | 1 | | | | | | 1 | | | | |
| 28 | | 1 | | | | | | | | | | | 1 | | | | |
| 29 | | | | | | | 1 | | | | | | 1 | | | | |
| 30 | | 1 | | | | | | | | | | | | 1 | | | |
| 31 | | | | | | | 1 | | | | | | | 1 | | | |
| 32 | | | | | | | 1 | | | | | | | | | | |
| 33 | | | | | | | 1 | | | | | | | | | | |
| 34 | | | | | | | 1 | | | | | | | | | | |
| 35 | | | | | | | 1 | | | | | | | | | | |
| 36 | | | | | | | 1 | | | | | | | | | | |
| 37 | | | | | | | 1 | | | | | | | | | | |
| 38 | | | | | | | 1 | | | | | | | 1 | | | |

| Reach: 15 | | | | | | | | | | | | | | | | | |
|--------------------|--------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------------|----------|---|---|---|
| Transect Number: 2 | | | | | | | | | | | | | | | | | |
| Reading pe | Distichlis spicata | Typha sp. | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| | | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | concrete | | | |
| 39 | | | | | | | 1 | | | | | | | | 1 | | |
| 40 | | | | | | | 1 | | | | | | | | 1 | | |
| 41 | | | | | | | 1 | | | | | | | | | | |
| 42 | | | | | | | 1 | | | | | | | | | | |
| 43 | | | | | | | 1 | | | | | | | | | | |
| 44 | | | | | | | 1 | | | | | | | | | | |
| 45 | 1 | | | 1 | | | | | | | | | | | | 1 | |
| 46 | | | | | | | 1 | | | | | | | | | | |
| 47 | | | | | | | 1 | | | | | | | | | 1 | |
| 48 | | | | | | | 1 | | | | | | | | | 1 | |
| 49 | | | | | | | 1 | | | | | | | | | | |
| 50 | | | | | | | 1 | | | | | | | | | | |
| 51 | | | | | | | 1 | | | | | | | | | | |
| 52 | | | | | | | 1 | | | | | | | | | | |
| 53 | | | | | | | 1 | | | | | | | | | | |
| 54 | | | | | | | 1 | | | | | | | | | | |
| 55 | | | | | | | 1 | | | | | | | | | | |
| 56 | | | | | | | 1 | | | | | | | | | | |
| 57 | 1 | | | 1 | | | | | | | | | | | | | 1 |
| 58 | 1 | | | 1 | | | | | | | | | | | | | 1 |
| 59 | | | | | | | 1 | | | | | | | | | | |
| 60 | | | | | | | 1 | | | | | | | | | | |
| 61 | | | | | | | 1 | | | | | | | | | | |
| 62 | | | | | | | 1 | | | | | | | | | | |
| 63 | | | | | | | 1 | | | | | | | | | | |
| 64 | | | | | | | 1 | | | | | | | | | | |
| 65 | | | | | | | 1 | | | | | | | | | | |
| 66 | | | | | | | 1 | | | | | | | | | | |
| 67 | | | | | | | 1 | | | | | | | | | | 1 |
| 68 | | | | | | | 1 | | | | | | | | | | 1 |
| 69 | | | | | | | 1 | | | | | | | | | | 1 |
| 70 | | | | | | | 1 | | | | | | | | | | 1 |
| 71 | | | | | | | 1 | | | | | | | | | | 1 |
| 72 | | | | | | | 1 | | | | | | | | | | 1 |
| 73 | | | | | | | 1 | | | | | | | | | | 1 |
| 74 | | | | | | | 1 | | | | | | | | | | 1 |
| 75 | | | | | | | 1 | | | | | | | | | | 1 |
| 76 | | | | | | | 1 | | | | | | | | | | 1 |

| Reach: 15 | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|--------------------|-----------|--------------------|-------------|-------|----------|------|-----------------------|-------------|---------------------|-------|-----|----------------------|----------|--|
| Transect Number: 2 | | | | | | | | | | | | | | | |
| Reading pe | Distichlis spicata | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | water with Lemna sp. | concrete | |
| 77 | | | | | | 1 | | | | | | | | 1 | |
| 78 | | | | | | 1 | | | | | | | | 1 | |
| 79 | | | | | | 1 | | | | | | | | 1 | |
| 80 | | | | | | 1 | | | | | | | | 1 | |
| Totals | 3 | 2 | 5 | 2 | 0 | 73 | 0 | 9 | 6 | 0 | 26 | 10 | 0 | 29 | |
| | | | Total Class Cover: | | | | | | | | | | | | |
| | | | Native | | 10 | | | | | | | | | | |
| | | | non-native | | 4 | | | | | | | | | | |
| | | | no vegetation | | 91.25 | | | | | | | | | | |

| Reach: 16 | | | | | | | | | | | | | |
|--------------------|------------------|-----------------|-------------|--------------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|---|
| Transect Number: 1 | | | | | | | | | | | | | |
| Reading pe | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | non-native grass | non-native herb | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | |
| 1 | | | | | | 1 | | 1 | | | | | |
| 2 | | | | | | 1 | | | 1 | | | | |
| 3 | | | | | | 1 | | 1 | | | | | |
| 4 | | | | | | 1 | | 1 | | | | | |
| 5 | | | | | | 1 | | 1 | | | | | |
| 6 | | | | | | 1 | | 1 | | | | | |
| 7 | 1 | | | | 1 | | | | 1 | | | | |
| 8 | 1 | | | | 1 | | | | 1 | | | | |
| 9 | 1 | | | | 1 | | | | 1 | | | | |
| 10 | 1 | | | | 1 | | | | 1 | | | | |
| 11 | | | | | | 1 | | 1 | | | | | |
| 12 | | | | | | 1 | | 1 | | | | | |
| 13 | 1 | | | | 1 | | | | 1 | | | | |
| 14 | | | | | | 1 | | | 1 | | | | |
| 15 | | | | | | 1 | | | | | | 1 | |
| 16 | | | | | | 1 | | 1 | | | | | |
| 17 | 1 | | | | 1 | | | | | | | 1 | |
| 18 | | | | | | 1 | | | | | | 1 | |
| 19 | | 1 | | | 1 | | | | 1 | | | | |
| 20 | | 1 | | | 1 | | | | 1 | | | | |
| Totals | 6 | 2 | | 0 | 8 | 0 | 12 | 0 | 8 | 9 | 0 | 0 | 3 |
| | | | | Total Class Cover: | | | | | | | | | |
| | | | | Native | | 0 | | | | | | | |
| | | | | non-native | | 40 | | | | | | | |
| | | | | no vegetation | | 60 | | | | | | | |

| Reach: 17 | | | | | | | | | | | | | |
|--------------------|---|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|----------------|
| Transect Number: 1 | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | grouted riprap |
| 1 | | | | | 1 | | | 1 | | | | | |
| 2 | | | | | 1 | | | 1 | | | | | |
| 3 | | | | | 1 | | | 1 | | | | | |
| 4 | | | | | 1 | | | 1 | | | | | |
| 5 | | | | | 1 | | | 1 | | | | | |
| 6 | | | | | 1 | | | 1 | | | | | |
| 7 | | | | | 1 | | | 1 | | | | | |
| 8 | | | | | 1 | | | 1 | | | | | |
| 9 | | | | | 1 | | | 1 | | | | | |
| 10 | | | | | 1 | | | 1 | | | | | |
| 11 | | | | | 1 | | | 1 | | | | | |
| 12 | | | | | 1 | | | 1 | | | | | |
| 13 | | | | | 1 | | | 1 | | | | | |
| 14 | | | | | 1 | | | 1 | | | | | |
| 15 | | | | | 1 | | | 1 | | | | | |
| 16 | | | | | 1 | | | 1 | | | | | |
| 17 | | | | | 1 | | | 1 | | | | | |
| 18 | | | | | 1 | | | 1 | | | | | |
| 19 | | | | | 1 | | | 1 | | | | | |
| 20 | | | | | 1 | | | 1 | | | | | |
| 21 | | | | | 1 | | | 1 | | | | | |
| 22 | | | | | 1 | | | 1 | | | | | |
| 23 | | | | | 1 | | | 1 | | | | | |
| 24 | | | | | 1 | | | 1 | | | | | |
| 25 | | | | | 1 | | | 1 | | | | | |
| 26 | | | | | 1 | | | 1 | | | | | |
| 27 | | | | | 1 | | | 1 | | | | | |
| 28 | | | | | 1 | | | 1 | | | | | |
| 29 | | | | | 1 | | | 1 | | | | | |
| 30 | | | | | 1 | | | 1 | | | | | |
| Totals | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 |
| | | Total Class Cover: | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | |
| | | non-native | | 0 | | | | | | | | | |
| | | no vegetation | | 100 | | | | | | | | | |

| | | | | | | | | | | | | | | | | |
|--------------------|--|-------------|------------|------|----------|--|-----------------------|-------------|-------------|---------------------|-------|-----|----------|----------------|--|--|
| Reach: 17 | | | | | | | | | | | | | | | | |
| Transect Number: 1 | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | | Ground Cover Material | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | grouted riprap | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| Reach: 18 | | | | | | | | | | | | | |
|--------------------|------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|-----|--|
| Transect Number: 1 | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading pe | non-native grass | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | mud | |
| 1 | | | | | 1 | 1 | | | | | | | |
| 2 | | | | | 1 | | | 1 | | | | | |
| 3 | | | | | 1 | | | 1 | | | | | |
| 4 | 1 | | 1 | | | | | 1 | | | | | |
| 5 | | | | | 1 | | | 1 | | | | | |
| 6 | | | | | 1 | | | 1 | | | | | |
| 7 | | | | | 1 | | | | | | | 1 | |
| 8 | | | | | 1 | | | | | | | 1 | |
| 9 | | | | | 1 | | | | | | | 1 | |
| 10 | | | | | 1 | | | 1 | | | | | |
| 11 | 1 | | 1 | | | | | | | | | 1 | |
| 12 | 1 | | 1 | | | | | | | | | 1 | |
| 13 | 1 | | 1 | | | | | | | | | 1 | |
| 14 | 1 | | 1 | | | | | | | | | 1 | |
| 15 | 1 | | 1 | | | | | | | | | 1 | |
| 16 | 1 | | 1 | | | | | | | | | 1 | |
| 17 | 1 | | 1 | | | | | | | | | 1 | |
| 18 | 1 | | 1 | | | | | 1 | | | | | |
| 19 | | | | | 1 | | | 1 | | | | | |
| 20 | | | | | 1 | | | | | | | 1 | |
| Totals | 9 | 0 | 9 | 0 | 11 | 1 | 0 | 8 | 0 | 0 | 0 | 11 | |
| | | Total Class Cover: | | | | | | | | | | | |
| | | Native | | | 0 | | | | | | | | |
| | | non-native | | | 45 | | | | | | | | |
| | | no vegetation | | | 55 | | | | | | | | |

| Reach: 18 | | | | | | | | | | | | |
|--------------------|----------|--------------------|------------|----------|-----------|-----------------------|-------------|-------------|---------------------|----------|----------|-----------|
| Transect Number: 2 | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | mud |
| 1 | | | | | 1 | | | | | | | 1 |
| 2 | | | | | 1 | | | | | | | 1 |
| 3 | | | | | 1 | | | | | | | 1 |
| 4 | | | | | 1 | | 1 | | | | | |
| 5 | | | | | 1 | | | | | | | 1 |
| 6 | | | | | 1 | | | 1 | | | | |
| 7 | | | | | 1 | | | | | | | 1 |
| 8 | | | | | 1 | | | | | | | 1 |
| 9 | | | | | 1 | | | | | | | 1 |
| 10 | | | | | 1 | | | | | | | 1 |
| 11 | | | | | 1 | | | | | | | 1 |
| 12 | | | | | 1 | | | | | | | 1 |
| 13 | | | | | 1 | | | 1 | | | | |
| 14 | | | | | 1 | | | 1 | | | | |
| 15 | | | | | 1 | | | | | | | 1 |
| 16 | | | | | 1 | | | | | | | 1 |
| 17 | | | | | 1 | | | 1 | | | | |
| 18 | | | | | 1 | | | 1 | | | | |
| 19 | | | | | 1 | | | 1 | | | | |
| 20 | | | | | 1 | | | 1 | | | | |
| Totals | 0 | 0 | 0 | 0 | 20 | 0 | 1 | 7 | 0 | 0 | 0 | 12 |
| | | Total Class Cover: | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | |
| | | non-native | | 0 | | | | | | | | |
| | | no vegetation | | 100 | | | | | | | | |

| Reach: 19 | | Class Cover | | | | Ground Cover Material | | | | | |
|--------------------|------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|------|----------|
| Transect Number: 1 | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | sand | concrete |
| Reading pe | Pinus canarensis | | | | | | | | | | |
| 1 | | | | | 1 | | | | | | 1 |
| 2 | | | | | 1 | | | | | | 1 |
| 3 | | | | | 1 | | | | | | 1 |
| 4 | | | | | 1 | | | | | | 1 |
| 5 | | | | | 1 | | | 1 | | | |
| 6 | | | | | 1 | | | 1 | | | |
| 7 | | | | | 1 | | 1 | | | | |
| 8 | | | | | 1 | | | | | 1 | |
| 9 | | | | | 1 | | | 1 | | | |
| 10 | | | | | 1 | | | 1 | | | |
| 11 | | | | | 1 | | | | | 1 | |
| 12 | | | | | 1 | | | | | 1 | |
| 13 | | | | | 1 | | | | | 1 | |
| 14 | | | | | 1 | | | | | 1 | |
| 15 | | | | | 1 | | | | | 1 | |
| 16 | | | | | 1 | | | | | 1 | |
| 17 | | | | | 1 | | | | | 1 | |
| 18 | | | | | 1 | | | | | 1 | |
| 19 | | | | | 1 | | | | | 1 | |
| 20 | | | | | 1 | | | | | 1 | |
| 21 | | | | | 1 | | | | | 1 | |
| 22 | | | | | 1 | | | | | 1 | |
| 23 | | | | | 1 | | | | | 1 | |
| 24 | | | | | 1 | | | 1 | | | |
| 25 | | | | | 1 | | 1 | | | | |
| 26 | | | | | 1 | | 1 | | | | |
| 27 | | | | | 1 | | 1 | | | | |
| 28 | | | | | 1 | | | 1 | | | |
| 29 | | | | | 1 | | 1 | | | | |
| 30 | | | | | 1 | | 1 | | | | |
| 31 | | | | | 1 | | | | | 1 | |
| 32 | | | | | 1 | | | | | 1 | |
| 33 | | | | | 1 | | | | | 1 | |
| 34 | | | | | 1 | | 1 | | | | |
| 35 | | | | | 1 | | | 1 | | | |
| 36 | | | | | 1 | | 1 | | | | |
| 37 | | | | | 1 | | 1 | | | | |
| 38 | | | | | 1 | | | | | 1 | |

| Reach: 19 | | | | | | | | | | | | | |
|--------------------|------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|------|----------|---|--|
| Transect Number: 1 | | | | | | | | | | | | | |
| Reading pe | Pinus canarensis | Class Cover | | | | Ground Cover Material | | | | | | | |
| | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | sand | concrete | | |
| 39 | | | | | 1 | | | | | | 1 | | |
| 40 | | | | | 1 | | | | | | 1 | | |
| 41 | | | | | 1 | | | | | | 1 | | |
| 42 | | | | | 1 | | | 1 | | | | | |
| 43 | | | | | 1 | | | 1 | | | | | |
| 44 | | | | | 1 | | | 1 | | | | | |
| 45 | | | | | 1 | | | | | | 1 | | |
| 46 | | | | | 1 | | | 1 | | | | | |
| 47 | | | | | 1 | | | 1 | | | | | |
| 48 | | | | | 1 | | | | 1 | | | | |
| 49 | | | | | 1 | | | | 1 | | | | |
| 50 | | | | | 1 | | | | | | 1 | | |
| 51 | 1 | | 1 | | | | | | 1 | | | | |
| 52 | 1 | | 1 | | | | | | | | 1 | | |
| 53 | 1 | | 1 | | | | | | 1 | | | | |
| 54 | 1 | | 1 | | | | | | 1 | | | | |
| 55 | 1 | | 1 | | | | | 1 | | | | | |
| 56 | 1 | | 1 | | | | | 1 | | | | | |
| 57 | 1 | | 1 | | | | | 1 | | | | | |
| 58 | 1 | | 1 | | | | | 1 | | | | | |
| 59 | 1 | | 1 | | | | | | 1 | | | | |
| 60 | 1 | | 1 | | | | | | 1 | | | | |
| 61 | 1 | | 1 | | | | | | 1 | | | | |
| 62 | 1 | | 1 | | | | | | 1 | | | | |
| 63 | 1 | | 1 | | | | | | 1 | | | | |
| 64 | 1 | | 1 | | | | | | 1 | | | | |
| 65 | 1 | | 1 | | | | | | 1 | | | | |
| 66 | 1 | | 1 | | | | | | 1 | | | | |
| 67 | 1 | | 1 | | | | | | 1 | | | | |
| 68 | 1 | | 1 | | | | | | 1 | | | | |
| 69 | 1 | | 1 | | | | | | 1 | | | | |
| 70 | 1 | | 1 | | | | | | 1 | | | | |
| 71 | 1 | | 1 | | | | | | 1 | | | | |
| 72 | 1 | | 1 | | | | | | 1 | | | | |
| 73 | 1 | | 1 | | | | | | 1 | | | | |
| 74 | 1 | | 1 | | | | | | 1 | | | | |
| 75 | 1 | | 1 | | | | | | 1 | | | | |
| Totals | 25 | | 0 | 25 | 0 | 50 | 0 | 18 | 29 | 0 | 24 | 4 | |

| | | | | | | | | | | | | | |
|--------------------|------------------|--------------------|------------|----------|----------|-----------------------|-------------|-------------|---------------------|------|----------|--|--|
| Reach: 19 | | | | | | | | | | | | | |
| Transect Number: 1 | | | | | | | | | | | | | |
| | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading pe | pinus canarensis | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | sand | concrete | | |
| | | Total Class Cover: | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | |
| | | non-native | | 33.33333 | | | | | | | | | |
| | | no vegetation | | 66.66667 | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

| Reach: 19 | | | | | | | | | | | | | | | | | | | | | |
|--------------------|------------------------|-------------------------|-----------------|---------------------|------------------|--------|-------------|------|----------|------|-----------------------|-------------|---------------------|-------|------|----------|--|--|---|--|--|
| Transect Number: 2 | | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| Reading pe | Eriogonum fasciculatum | Lepidospartum squamatum | Lotus scoparius | Medicago polymorpha | non-native grass | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | concrete | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 2 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 3 | | | | | | | | | 1 | | | | | | | 1 | | | | | |
| 4 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 5 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 6 | | | | | | | | | 1 | | | | | | | 1 | | | | | |
| 7 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 8 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 9 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 10 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 11 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 12 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 13 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 14 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 15 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 16 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 17 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 18 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 19 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 20 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 21 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 22 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 23 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 24 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 25 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 26 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 27 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 28 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 29 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 30 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 31 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 32 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 33 | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 34 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 35 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 36 | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| 37 | | | | | | | | | 1 | | | | | | | | | | 1 | | |

| Reach: 19 | | | | | | | | | | | | | | | | | | | | |
|--------------------|------------------------|-------------------------|-----------------|---------------------|------------------|--------|-------------|------|----------|------|-----------------------|-------------|---------------------|-------|------|----------|--|---|--|--|
| Transect Number: 2 | | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Eriogonum fasciculatum | Lepidospartum squamatum | Lotus scoparius | Medicago polymorpha | non-native grass | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | concrete | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| 38 | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 39 | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 40 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 41 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 42 | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 43 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 44 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 45 | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 46 | | | | | | | | | 1 | | | 1 | | | | | | | | |
| 47 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 48 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 49 | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 50 | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 51 | | | | | | | | | 1 | | 1 | | | | | 1 | | | | |
| 52 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 53 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 54 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 55 | | | 1 | | | 1 | | | | | | 1 | | | | | | | | |
| 56 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 57 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 58 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 59 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 60 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 61 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 62 | | | | | | | | | 1 | | | | | | | | | 1 | | |
| 63 | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 64 | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 65 | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 66 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 67 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 68 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 69 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 70 | | | | 1 | | | 1 | | | | | | | | | 1 | | | | |
| 71 | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 72 | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 73 | | | | | | | | | 1 | | | | | | | 1 | | | | |
| 74 | | | | | | | | | 1 | | 1 | | | | | | | | | |

| Reach: 19 | | | | | | | | | | | | | | | | |
|--------------------|------------------------|-------------------------|-----------------|---------------------|------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|----------|
| Transect Number: 2 | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Eriogonum fasciculatum | Lepidospartum squamatum | Lotus scoparius | Medicago polymorpha | non-native grass | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | concrete |
| 75 | | | | | | | | | 1 | | 1 | | | | | |
| 76 | | | | | | | | | 1 | | 1 | | | | | |
| 77 | | | | | | | | | 1 | | 1 | | | | | |
| 78 | | | | | | | | | 1 | | 1 | | | | | |
| 79 | | | | | | | | | 1 | | | | | | 1 | |
| 80 | | | | | | | | | 1 | | | | | | 1 | |
| 81 | | | | | | | | | 1 | | | | | | 1 | |
| 82 | | | | | | | | | 1 | | | | | | 1 | |
| 83 | | | | | | | | | 1 | | 1 | | | | | |
| 84 | | | | | | | | | 1 | | | 1 | | | | |
| 85 | 1 | | | | | 1 | | | | 1 | | | | | | |
| 86 | | | | | | | | | 1 | | | 1 | | | | |
| 87 | 1 | | | | 1 | | | 1 | | | | 1 | | | | |
| 88 | 1 | | | | | 1 | | | | | | 1 | | | | |
| 89 | | 1 | | | | 1 | | | | | | 1 | | | | |
| 90 | | 1 | | | | 1 | | | | | | 1 | | | | |
| 91 | | 1 | | | | 1 | | | | | | 1 | | | | |
| 92 | | 1 | | | | 1 | | | | | | 1 | | | | |
| 93 | | 1 | | | | 1 | | | | | | 1 | | | | |
| Totals | 3 | 5 | 1 | 1 | 1 | 8 | 1 | 1 | 83 | 1 | 37 | 11 | 0 | 0 | 44 | 1 |
| | | | | | | Total Class Cover: | | | | | | | | | | |
| | | | | | | Native | | | | 9.677419 | | | | | | |
| | | | | | | non-native | | | | 2.150538 | | | | | | |
| | | | | | | no vegetation | | | | 89.24731 | | | | | | |

| Reach: 21 | | | | | | | | | | |
|--------------------|----------|--------------------|------------|----------|-----------|-----------------------|-------------|-------------|---------------------|----------|
| Transect Number: 1 | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | sand |
| 1 | | | | | 1 | | | 1 | | |
| 2 | | | | | 1 | | | | | 1 |
| 3 | | | | | 1 | | | 1 | | |
| 4 | | | | | 1 | | | 1 | | |
| 5 | | | | | 1 | | | | | 1 |
| 6 | | | | | 1 | | | 1 | | |
| 7 | | | | | 1 | | | | | 1 |
| 8 | | | | | 1 | | | 1 | | |
| 9 | | | | | 1 | | | | | 1 |
| 10 | | | | | 1 | | | | | 1 |
| 11 | | | | | 1 | | | 1 | | |
| 12 | | | | | 1 | | | | | 1 |
| 13 | | | | | 1 | | | | | 1 |
| 14 | | | | | 1 | | | | | 1 |
| 15 | | | | | 1 | | | 1 | | |
| Totals | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 7 | 0 | 8 |
| | | Total Class Cover: | | | | | | | | |
| | | Native | | 0 | | | | | | |
| | | non-native | | 0 | | | | | | |
| | | no vegetation | | 100 | | | | | | |

| Reach: 22 | | | | | | | | | | | | | |
|--------------------|-----------------------|--------------------|------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|
| Transect Number: 1 | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | |
| | Artemisia douglasiana | non-native grasses | Ricinus communis | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand |
| 1 | 1 | | | 1 | | | | | | 1 | | | |
| 2 | | | | | | | 1 | | | 1 | | | |
| 3 | | | | | | | 1 | | | 1 | | | |
| 4 | | | | | | | 1 | | | 1 | | | |
| 5 | 1 | | | 1 | | | | | | 1 | | | |
| 6 | 1 | | | 1 | | | | | | 1 | | | |
| 7 | | | | | | | 1 | | | 1 | | | |
| 8 | | | | | | | 1 | | | 1 | | | |
| 9 | 1 | | | 1 | | | | | | 1 | | | |
| 10 | 1 | | | 1 | | | | | | 1 | | | |
| 11 | 1 | | | 1 | | | | | | 1 | | | |
| 12 | 1 | | | 1 | | | | | | 1 | | | |
| 13 | 1 | | | 1 | | | | | | | | | 1 |
| 14 | | | | | | | 1 | | 1 | | | | |
| 15 | | | | | | | 1 | | | 1 | | | |
| 16 | | | | | | | 1 | | | | | | 1 |
| 17 | | | | | | | 1 | | | | | | 1 |
| 18 | | | | | | | 1 | | | 1 | | | |
| 19 | | | | | | | 1 | | 1 | | | | |
| 20 | | | | | | | 1 | | 1 | | | | |
| 21 | | | | | | | 1 | | | | | | 1 |
| 22 | | | | | | | 1 | | | | | | 1 |
| 23 | | | | | | | 1 | | 1 | | | | |
| 24 | | | | | | | 1 | | 1 | | | | |
| 25 | | | | | | | 1 | | 1 | | | | |
| 26 | | | | | | | 1 | | | | | | 1 |
| 27 | | | | | | | 1 | | | 1 | | | |
| 28 | | 1 | | | 1 | | | | | | | | 1 |
| 29 | | | | | | | 1 | | | | | | 1 |
| 30 | | | | | | | 1 | | | | | | 1 |
| 31 | | | | | | | 1 | | | 1 | | | |
| 32 | | | | | | | 1 | | | | | | 1 |
| 33 | | | | | | | 1 | | | | | | 1 |
| 34 | | | | | | | 1 | | | | | | 1 |
| 35 | | | | | | | 1 | | | | | | 1 |
| 36 | | | | | | | 1 | | | | | | 1 |
| 37 | | | | | | | 1 | | | 1 | | | |
| 38 | | | | | | | 1 | | | 1 | | | |

| Reach: 22 | | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|--------------------|------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|--|--|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Artemisia douglasiana | non-native grasses | Ricinus communis | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | | | | |
| 39 | | | | | | | 1 | | | | | | 1 | | | | |
| 40 | | | | | | | 1 | | | 1 | | | | | | | |
| 41 | | | | | | | 1 | | | 1 | | | | | | | |
| 42 | | | | | | | 1 | | | 1 | | | | | | | |
| 43 | | | | | | | 1 | | 1 | | | | | | | | |
| 44 | | | | | | | 1 | | | 1 | | | | | | | |
| 45 | | | | | | | 1 | | | | | | 1 | | | | |
| 46 | | | | | | | 1 | | | | | | 1 | | | | |
| 47 | | | | | | | 1 | | | 1 | | | | | | | |
| 48 | | 1 | | | 1 | | | | | 1 | | | | | | | |
| 49 | | 1 | | | 1 | | | | | 1 | | | | | | | |
| 50 | | | | | | | 1 | | | 1 | | | | | | | |
| 51 | | | | | | | 1 | | | 1 | | | | | | | |
| 52 | | 1 | | | 1 | | | | | 1 | | | | | | | |
| 53 | | | 1 | | 1 | | | | | 1 | | | | | | | |
| 54 | | | 1 | | 1 | | | | | 1 | | | | | | | |
| 55 | | | | | | | 1 | | | | | | 1 | | | | |
| Totals | 8 | 4 | 2 | 8 | 6 | 0 | 41 | 0 | 7 | 30 | 0 | 0 | 18 | | | | |
| | | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | | Native | | | 14.54545 | | | | | | | | | | |
| | | | | non-native | | | 10.90909 | | | | | | | | | | |
| | | | | no vegetation | | | 74.54545 | | | | | | | | | | |

| Reach: 22 | | | | | | | | | | | | | | | |
|--------------------|--------------------|--------------|-----------------|------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|----------|
| Transect Number: 2 | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Gilia angelensis | Hedera helix | Lotus scoparius | non-native grass | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | concrete |
| 1 | | 1 | | | | 1 | | | | | 1 | | | | |
| 2 | | | | | | | | 1 | | | | | | 1 | |
| 3 | | | | | | | | 1 | | | 1 | | | | |
| 4 | | | | | | | | 1 | | | 1 | | | | |
| 5 | | | | | | | | 1 | | | 1 | | | | |
| 6 | | | | | | | | 1 | | | 1 | | | | |
| 7 | | | | | | | | 1 | | | | | | 1 | |
| 8 | | | | | | | | 1 | | | | | | 1 | |
| 9 | | | | | | | | 1 | | | | | | 1 | |
| 10 | | | | | | | | 1 | | | | | | 1 | |
| 11 | | | | | | | | 1 | | | | | | 1 | |
| 12 | | | | | | | | 1 | | | | | | 1 | |
| 13 | | | | | | | | 1 | | | | | | 1 | |
| 14 | | | | | | | | 1 | | | | | | 1 | |
| 15 | | | | | | | | 1 | | | | | | 1 | |
| 16 | | | | | | | | 1 | | | | | | 1 | |
| 17 | | | | | | | | 1 | | | | | | 1 | |
| 18 | | | | | | | | 1 | | | | | | 1 | |
| 19 | | | | | | | | 1 | | | | | | 1 | |
| 20 | | | | | | | | 1 | | | | | | 1 | |
| 21 | | | | | | | | 1 | | | 1 | | | | |
| 22 | | | | | | | | 1 | | 1 | | | | | |
| 23 | | | | | | | | 1 | | | | | | 1 | |
| 24 | | | | | | | | 1 | | 1 | | | | | |
| 25 | | | | | | | | 1 | | | | | | 1 | |
| 26 | | | | | | | | 1 | | | | | | 1 | |
| 27 | | | | | | | | 1 | | 1 | | | | | |
| 28 | | | 1 | | 1 | | | | | 1 | | | | | |
| 29 | | | 1 | | 1 | | | | | | 1 | | | | |
| 30 | | | | | | | | 1 | | | | | | 1 | |
| 31 | | | | | | | | 1 | | | | | | 1 | |
| 32 | | | | | | | | 1 | | 1 | | | | | |
| 33 | | | | | | | | 1 | | 1 | | | | | |
| 34 | | | | | | | | 1 | | 1 | | | | | |
| 35 | | | | | | | | 1 | | | 1 | | | | |
| 36 | | | | | | | | 1 | | | | | | | 1 |
| 37 | | | | | | | | 1 | | | 1 | | | | |
| 38 | | | | | | | | 1 | | 1 | | | | | |

| Reach: 22 | | | | | | | | | | | | | | | | |
|--------------------|--------------------|--------------|-----------------|------------------|--------------------|------------|-----------|----------|-----------------------|-------------|-------------|---------------------|-------|------|----------|--|
| Transect Number: 2 | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading pe | Gilia angelensis | Hedera helix | Lotus scoparius | non-native grass | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | concrete | |
| 39 | | | | | | | | 1 | | 1 | | | | | | |
| 40 | | | | | | | | 1 | | | | | | | 1 | |
| 41 | | | | 1 | | 1 | | | | | | | | | 1 | |
| 42 | | | | | | | | 1 | | | | | | | 1 | |
| 43 | | | | 1 | | 1 | | | | | | | | | 1 | |
| 44 | | | | 1 | | 1 | | | | | 1 | | | | | |
| 45 | | | | 1 | | 1 | | | | | | | | | 1 | |
| Totals | 0 | 1 | 2 | 4 | 2 | 5 | 0 | 38 | 0 | 9 | 10 | 0 | 0 | 25 | | |
| | | | | | Total Class Cover: | | | | | | | | | | | |
| | | | | | Native | | 4.444444 | | | | | | | | | |
| | | | | | non-native | | 11.111111 | | | | | | | | | |
| | | | | | no vegetation | | 84.444444 | | | | | | | | | |

| Reach: 22 | | | | | | | | | | | | | | | |
|--------------------|---|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|------|--|--|--|--|
| Transect Number: 3 | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Artemisia douglasiana Galium aparine | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | | | | |
| 1 | | | | | 1 | | | 1 | | | | | | | |
| 2 | | | | | 1 | | | 1 | | | | | | | |
| 3 | | | | | 1 | | | | | | 1 | | | | |
| 4 | | | | | 1 | | 1 | | | | | | | | |
| 5 | | | | | 1 | | 1 | | | | | | | | |
| 6 | | | | | 1 | | | | | | 1 | | | | |
| 7 | | | | | 1 | | | 1 | | | | | | | |
| 8 | | | | | 1 | | | 1 | | | | | | | |
| 9 | | | | | 1 | | | | | | 1 | | | | |
| 10 | | | | | 1 | | | | | | 1 | | | | |
| 11 | | | | | 1 | | | 1 | | | | | | | |
| 12 | | | | | 1 | | | | | | 1 | | | | |
| 13 | | | | | 1 | | | | | | 1 | | | | |
| 14 | | | | | 1 | | | 1 | | | | | | | |
| 15 | | | | | 1 | | | | | | 1 | | | | |
| 16 | | | | | 1 | | 1 | | | | | | | | |
| 17 | | | | | 1 | | | 1 | | | | | | | |
| 18 | | | | | 1 | | | | | | 1 | | | | |
| 19 | | | | | 1 | | | 1 | | | | | | | |
| 20 | | | | | 1 | | | 1 | | | | | | | |
| 21 | | | | | 1 | | 1 | | | | | | | | |
| 22 | | | | | 1 | | 1 | | | | | | | | |
| 23 | | | | | 1 | | 1 | | | | | | | | |
| 24 | | | | | 1 | | 1 | | | | | | | | |
| 25 | | | | | 1 | | 1 | | | | | | | | |
| 26 | | | | | 1 | | 1 | | | | | | | | |
| 27 | | | | | 1 | | | 1 | | | | | | | |
| 28 | | | | | 1 | | | 1 | | | | | | | |
| 29 | | | | | 1 | | | 1 | | | | | | | |
| 30 | | | | | 1 | | | 1 | | | | | | | |
| 31 | | | | | 1 | | | 1 | | | | | | | |
| 32 | | | | | 1 | | | | | | 1 | | | | |
| 33 | | | | | 1 | | 1 | | | | | | | | |
| 34 | | | | | 1 | | | 1 | | | | | | | |
| 35 | | | | | 1 | | | 1 | | | | | | | |
| 36 | | | | | 1 | | | | | | 1 | | | | |
| 37 | | | | | 1 | | | 1 | | | | | | | |
| 38 | | | | | 1 | | | | | | 1 | | | | |

| Reach: 22 | | | | | | | | | | | | | | | | |
|--------------------|-----------------------|----------------|--------------------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|------|--|--|--|--|
| Transect Number: 3 | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| Reading pe | Artemisia douglasiana | Galium aparine | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | | | | |
| 39 | 1 | | 1 | | | | | | 1 | | | | | | | |
| 40 | | | | | | 1 | | | 1 | | | | | | | |
| 41 | | | | | | 1 | | | 1 | | | | | | | |
| 42 | 1 | 1 | | | | 1 | | | 1 | | | | | | | |
| 43 | 1 | 1 | | | | 1 | | | 1 | | | | | | | |
| 44 | 1 | 1 | | | | 1 | | | 1 | | | | | | | |
| 45 | 1 | 1 | | | | 1 | | | 1 | | | | | | | |
| Totals | 5 | 4 | 1 | 0 | 4 | 40 | 0 | 10 | 24 | 0 | 0 | 11 | | | | |
| | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | Native | | | 11.11111 | | | | | | | | | | |
| | | | non-native | | | 8.88889 | | | | | | | | | | |
| | | | no vegetation | | | 88.88889 | | | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|--|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|-------|----------------|--|--|--|--|--|--|
| Transect Number: 1A - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | trash | grouted riprap | | | | | | |
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| Reach: 24 | | | | | | | | | | | | | | | | |
|--|---|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|-------|----------------|---|---|---|
| Transect Number: 1A - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | trash | grouted riprap | | | |
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| 69 | | | | | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Total Class Cover: | | | | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | | | | |
| | | non-native | | 0 | | | | | | | | | | | | |
| | | no vegetation | | 0 | | | | | | | | | | | | |

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|--|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|-------|----------------|--|--|--|--|
| Reach: 24 | | | | | | | | | | | | | | | | | |
| Transect Number: 1A - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | trash | grouted riprap | | | | |
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| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|--|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------|----------------|--|--|--|--|--|--|
| Transect Number: 1B - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | grouted riprap | | | | | | |
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| 37 | | | | | | | | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | | | | | | | |

| Reach: 24 | | Transect Number: 1B - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | |
|--------------------|---|--|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------|----------------|--|
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | grouted riprap | |
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| 59 | | | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Total Class Cover: | | | | | | | | | | | | |
| | | | | 0 | | | | | | | | | | |
| | | | | 0 | | | | | | | | | | |
| | | | | 0 | | | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | | | | | |
|--|--|-------------|------------|------|----------|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Transect Number: 1C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | water | | | | | | | | | | | | | | | |
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|--|--|-------------|------------|------|----------|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Reach: 24 | | | | | | | | | | | | | | | | | | | |
| Transect Number: 1C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | water | | | | | | | | | | | | | |
| 41 | | | | | | | | | | | | | | | | | | | |
| 42 | | | | | | | | | | | | | | | | | | | |
| 43 | | | | | | | | | | | | | | | | | | | |
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|--|---|--------------------|------------|------|----------|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Reach: 24 | | | | | | | | | | | | | | | | | | | |
| Transect Number: 1C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | water | | | | | | | | | | | | | |
| 81 | | | | | | | | | | | | | | | | | | | |
| 82 | | | | | | | | | | | | | | | | | | | |
| 83 | | | | | | | | | | | | | | | | | | | |
| 84 | | | | | | | | | | | | | | | | | | | |
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| 89 | | | | | | | | | | | | | | | | | | | |
| 90 | | | | | | | | | | | | | | | | | | | |
| 91 | | | | | | | | | | | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Total Class Cover: | | | | | | | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | | | | | | | |
| | | non-native | | 0 | | | | | | | | | | | | | | | |
| | | no vegetation | | 0 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | |

Total Class Cover Percent Average for 24-2A,B, and C:

| | |
|---------------|----------|
| Native | 6.9 |
| non-native | 17.85667 |
| no vegetation | 75.24667 |

| Reach: 24 | | | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------|----------------|-------------------|----------------|------------------|-----------------|------------------|---------------------|---------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|----------------|-----|-------|
| Transect Number: 2A | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Bidens frondosa | Brassica nigra | Helianthus annuus | Mellilotus sp. | non-native grass | non-native herb | Picris echioides | Plantago lanceolata | Polygonum sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | grouted riprap | mud | trash |
| 1 | | 1 | | | | | | | | | 1 | | | | | | | | | | 1 |
| 2 | | | | | 1 | | | | | | 1 | | | | | | | | | | 1 |
| 3 | | | 1 | | 1 | | | | | | 1 | | | | | | | | | | 1 |
| 4 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 5 | | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 6 | | | | 1 | | | | | | | 1 | | | | | | | | | | 1 |
| 7 | | | | | | | 1 | | | | 1 | | | | | | | | | | 1 |
| 8 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 9 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 10 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 11 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 12 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 13 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 14 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 15 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 16 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 17 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 18 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 19 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 20 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 21 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 22 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 23 | | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 24 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 25 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 26 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 27 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 28 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 29 | | | | | | | | | | | | | 1 | | | | 1 | | | | |
| 30 | | | | | | | | | | | | | 1 | | | | 1 | | | | |
| 31 | | | | | | | | | | | | | 1 | | | | 1 | | | | |
| 32 | | | | | | | | | | | | | 1 | | | | 1 | | | | |
| 33 | | | | | | | | | | | | | 1 | | | | 1 | | | | |
| 34 | | | | | | | | | | | | | 1 | | | | 1 | | | | |
| 35 | | | | | | | | | | | | | 1 | | | | 1 | | | | |
| 36 | | | | | | | | | | | | | 1 | | | | 1 | | | | |
| 37 | | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 38 | | | | | | | | | | | | | 1 | | | | 1 | | | | |
| 39 | | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 40 | | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 41 | | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 42 | | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 43 | | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 44 | | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |

| Reach: 24 | | | | | | | | | | Transect Number: 2A | | | | | | | | | | | |
|------------|------------------------|-----------------------|--------------------------|----------------|------------------|-----------------|-------------------------|----------------------------|-----------------------|---------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|----------------|-----|-------|
| Reading pe | Class Cover | | | | | | | | Ground Cover Material | | | | | | | | | | | | |
| | <i>Bidens frondosa</i> | <i>Brassica nigra</i> | <i>Helianthus annuus</i> | Mellilotus sp. | non-native grass | non-native herb | <i>Picris echioides</i> | <i>Plantago lanceolata</i> | Polygonum sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | grouted riprap | mud | trash |
| 45 | | | | | | 1 | | | | 1 | | | | | | | | | | | 1 |
| 46 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 47 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 48 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 49 | | | | | | | | | | | 1 | | | | | | | | | | 1 |
| 50 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 51 | | | | | 1 | | | | | | 1 | | | | | | | | | | 1 |
| 52 | | | | | | | | 1 | | | 1 | | | | | | | | | | 1 |
| 53 | | | | | | | | | | 1 | | | | | | | | | | | 1 |
| 54 | | | | | | | | | | 1 | | | | | | | | | | | 1 |
| 55 | | | | | | | | | | 1 | | | | | | | | | | | 1 |
| 56 | | | | | 1 | | | | | | 1 | | | | | | | | | | 1 |
| 57 | | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 58 | | | | | | | | | | | 1 | | | | | 1 | | | | | |
| 59 | | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 60 | 1 | | | | | | | | | | 1 | | | | | 1 | | | | | |
| 61 | | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 62 | | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 63 | | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 64 | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 65 | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 66 | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 67 | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 68 | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 69 | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 70 | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 71 | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 72 | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 73 | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 74 | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 75 | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 76 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 77 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 78 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 79 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 80 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 81 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 82 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 83 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 84 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 85 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 86 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 87 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 88 | | | | | | | | | | | | | 1 | | | | | | 1 | | |

| Reach: 24 | | | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------|----------------|-------------------|----------------|------------------|-----------------|------------------|---------------------|---------------|-----------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|----------------|-----|-------|
| Transect Number: 2A | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Class Cover | | | | | | | | | Ground Cover Material | | | | | | | | | | | |
| | Bidens frondosa | Brassica nigra | Helianthus annuus | Mellilotus sp. | non-native grass | non-native herb | Picris echioides | Plantago lanceolata | Polygonum sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | grouted riprap | mud | trash |
| 89 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 90 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 91 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 92 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 93 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 94 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 95 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 96 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 97 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 98 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 99 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 100 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 101 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 102 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 103 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 104 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 105 | | | | | | | | | | | | | 1 | | | | | | 1 | | |
| Totals | 1 | 1 | 1 | 1 | 4 | 1 | 6 | 3 | 1 | 0 | 30 | 0 | 75 | 0 | 0 | 6 | 0 | 9 | 42 | 47 | 1 |
| Total Class Cover: | | | | | | | | | | | | | | | | | | | | | |
| Native | | | | | | | | | | 0 | | | | | | | | | | | |
| non-native | | | | | | | | | | 28.57143 | | | | | | | | | | | |
| no vegetation | | | | | | | | | | 71.42857 | | | | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | |
|---------------------|------------------|------------------|-----------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----|----------------|--|--|
| Transect Number: 2B | | | | | | | | | | | | | | | |
| Reading pe | Class Cover | | Ground Cover Material | | | | | | | | | | | | |
| | non-native grass | Picris echioides | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | |
| 1 | | | | | | 1 | | | | | | 1 | | | |
| 2 | 1 | | | 1 | | | | | | | | 1 | | | |
| 3 | 1 | | | 1 | | | | | | | | 1 | | | |
| 4 | 1 | | | 1 | | | | | | | | 1 | | | |
| 5 | 1 | | | 1 | | | | | | | | 1 | | | |
| 6 | 1 | | | 1 | | | | | | | | 1 | | | |
| 7 | | | | | | 1 | | | | | | 1 | | | |
| 8 | 1 | | | 1 | | | | | | | | 1 | | | |
| 9 | | | | | | 1 | | | | | | 1 | | | |
| 10 | | | | | | 1 | | | | | | 1 | | | |
| 11 | | | | | | 1 | | | | | | 1 | | | |
| 12 | | | | | | 1 | | | | | | 1 | | | |
| 13 | | 1 | | 1 | | | | | | | | 1 | | | |
| 14 | | | | | | 1 | | | | | | 1 | | | |
| 15 | | | | | | 1 | | | | | | 1 | | | |
| 16 | | | | | | 1 | | | | | | 1 | | | |
| 17 | 1 | | | 1 | | | | | | | | 1 | | | |
| 18 | | | | | | 1 | | | | | | 1 | | | |
| 19 | 1 | | | 1 | | | | | | | | 1 | | | |
| 20 | | 1 | | 1 | | | | | | | | 1 | | | |
| 21 | | | | | | 1 | | | | | | 1 | | | |
| 22 | | | | | | 1 | | | | | | 1 | | | |
| 23 | | | | | | 1 | | | | | | 1 | | | |
| 24 | | 1 | | 1 | | | | | | | | 1 | | | |
| 25 | | | | | | 1 | | | | | | 1 | | | |
| 26 | 1 | | | 1 | | | | | | | | 1 | | | |
| 27 | | 1 | | 1 | | | | | | | | 1 | | | |
| 28 | 1 | | | 1 | | | | | | | | 1 | | | |
| 29 | | 1 | | 1 | | | | | | | | 1 | | | |
| 30 | | 1 | | 1 | | | | | | | | 1 | | | |
| 31 | | 1 | | 1 | | | | | | | | 1 | | | |
| 32 | | | | | | 1 | | | | | | 1 | | | |
| 33 | | 1 | | 1 | | | | | | | | 1 | | | |
| 34 | | 1 | | 1 | | | | | | | | | 1 | | |
| 35 | | | | | | 1 | | | | | | | 1 | | |
| 36 | | | | | | 1 | | | | | | | 1 | | |
| 37 | | | | | | 1 | | | | | | | 1 | | |
| 38 | | | | | | 1 | | | | | | | 1 | | |

| Reach: 24 | | | | | | | | | | | | | | | |
|---------------------|------------------|------------------|-------------|------------|------|----------|------|-----------------------|-------------|---------------------|-------|-----|----------------|--|--|
| Transect Number: 2B | | | | | | | | | | | | | | | |
| | | | Class Cover | | | | | Ground Cover Material | | | | | | | |
| Reading pe | non-native grass | Picris echioides | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | |
| 39 | | 1 | | 1 | | | | | | | | | 1 | | |
| 40 | | | | | | 1 | | | | | | | 1 | | |
| 41 | | | | | | 1 | | | | | | | 1 | | |
| 42 | | | | | | 1 | | | | | | | 1 | | |
| 43 | | | | | | 1 | | | | | | | 1 | | |
| 44 | | | | | | 1 | | | | | | | 1 | | |
| 45 | | | | | | 1 | | | | | | | 1 | | |
| 46 | | | | | | 1 | | | | | | | 1 | | |
| 47 | | | | | | 1 | | | | | | | 1 | | |
| 48 | | | | | | 1 | | | | | | | 1 | | |
| 49 | | | | | | 1 | | | | | | | 1 | | |
| 50 | | | | | | 1 | | | | | | | 1 | | |
| 51 | | | | | | 1 | | | | | | | 1 | | |
| 52 | | | | | | 1 | | | | | | | 1 | | |
| 53 | | | | | | 1 | | | | | | | 1 | | |
| 54 | | | | | | 1 | | | | | | | 1 | | |
| 55 | | | | | | 1 | | | | | | | 1 | | |
| 56 | | | | | | 1 | | | | | | | 1 | | |
| 57 | | | | | | 1 | | | | | | | 1 | | |
| 58 | | | | | | 1 | | | | | | | 1 | | |
| 59 | | | | | | 1 | | | | | | | 1 | | |
| 60 | | | | | | 1 | | | | | | | 1 | | |
| 61 | | | | | | 1 | | | | | | | 1 | | |
| 62 | | | | | | 1 | | | | | | | 1 | | |
| 63 | | | | | | 1 | | | | | | | 1 | | |
| 64 | | | | | | 1 | | | | | | | 1 | | |
| 65 | | | | | | 1 | | | | | | | 1 | | |
| 66 | | | | | | 1 | | | | | | | 1 | | |
| 67 | | | | | | 1 | | | | | | | 1 | | |
| 68 | | | | | | 1 | | | | | | | 1 | | |
| 69 | | | | | | 1 | | | | | | | 1 | | |
| 70 | | | | | | 1 | | | | | | | 1 | | |
| 71 | | | | | | 1 | | | | | | | 1 | | |
| 72 | | | | | | 1 | | | | | | | 1 | | |
| 73 | | | | | | 1 | | | | | | | 1 | | |
| 74 | | | | | | 1 | | | | | | | 1 | | |
| 75 | | | | | | 1 | | | | | | | 1 | | |
| 76 | | | | | | 1 | | | | | | | 1 | | |

| | | | | | | | | | | | | | | | | |
|---------------------|------------------|-------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|--|--|--|
| Reach: 24 | | | | | | | | | | | | | | | | |
| Transect Number: 2B | | | | | | | | | | | | | | | | |
| | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | non-native grass | Picris echinoides | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | | |
| 77 | | | | | | 1 | | | | | | | 1 | | | |
| 78 | | | | | | 1 | | | | | | | 1 | | | |
| 79 | | | | | | 1 | | | | | | | 1 | | | |
| 80 | | | | | | 1 | | | | | | | 1 | | | |
| Totals | 10 | 10 | 0 | 20 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 33 | 47 | | | |
| | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | Native | | | 0 | | | | | | | | | | |
| | | | non-native | | | 25 | | | | | | | | | | |
| | | | no vegetation | | | 75 | | | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | |
|---------------------|--------------------|--------------------|-------------|--------------------|------|----------|-----------------------|----|---|---|---|---|---|---|---|
| Transect Number: 2C | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Ludwigia peploides | Typha angustifolia | Native | Non-native | Both | No Plant | water | | | | | | | | |
| 1 | | | | | | 1 | 1 | | | | | | | | |
| 2 | | | | | | 1 | 1 | | | | | | | | |
| 3 | | | | | | 1 | 1 | | | | | | | | |
| 4 | | | | | | 1 | 1 | | | | | | | | |
| 5 | | 1 | | 1 | | | 1 | | | | | | | | |
| 6 | | 1 | | 1 | | | 1 | | | | | | | | |
| 7 | | 1 | | 1 | | | 1 | | | | | | | | |
| 8 | 1 | 1 | | 1 | | | 1 | | | | | | | | |
| 9 | 1 | 1 | | 1 | | | 1 | | | | | | | | |
| 10 | | 1 | | 1 | | | 1 | | | | | | | | |
| 11 | | | | | | 1 | 1 | | | | | | | | |
| 12 | | | | | | 1 | 1 | | | | | | | | |
| 13 | | | | | | 1 | 1 | | | | | | | | |
| 14 | | | | | | 1 | 1 | | | | | | | | |
| 15 | | | | | | 1 | 1 | | | | | | | | |
| 16 | | | | | | 1 | 1 | | | | | | | | |
| 17 | | | | | | 1 | 1 | | | | | | | | |
| 18 | | | | | | 1 | 1 | | | | | | | | |
| 19 | | | | | | 1 | 1 | | | | | | | | |
| 20 | | | | | | 1 | 1 | | | | | | | | |
| 21 | | | | | | 1 | 1 | | | | | | | | |
| 22 | | | | | | 1 | 1 | | | | | | | | |
| 23 | | | | | | 1 | 1 | | | | | | | | |
| 24 | | | | | | 1 | 1 | | | | | | | | |
| 25 | | | | | | 1 | 1 | | | | | | | | |
| 26 | | | | | | 1 | 1 | | | | | | | | |
| 27 | | | | | | 1 | 1 | | | | | | | | |
| 28 | | | | | | 1 | 1 | | | | | | | | |
| 29 | | | | | | 1 | 1 | | | | | | | | |
| Totals | 2 | 6 | | 6 | 0 | 0 | 23 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | Total Class Cover: | | | | | | | | | | | |
| | | | | Native | | 20.68966 | | | | | | | | | |
| | | | | non-native | | 0 | | | | | | | | | |
| | | | | no vegetation | | 79.31034 | | | | | | | | | |

| | | | | | | | | | | | | | | | | |
|---------------------|--------------------|--------------------|-------------|------------|------|----------|-----------------------|--|--|--|--|--|--|--|--|--|
| Reach: 24 | | | | | | | | | | | | | | | | |
| Transect Number: 2C | | | | | | | | | | | | | | | | |
| | Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Ludwigia peploides | Typha angustifolia | Native | Non-native | Both | No Plant | water | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

Total Class Cover Percent Average for 24-3A,B, and C:

| | |
|---------------|----------|
| Native | 8.896667 |
| non-native | 22.49 |
| no vegetation | 68.61333 |

| Reach: 24 | | | | | | | | | | | | | | | | | | |
|---------------------|---------------|------------------|-----------------|------------------|---------------------|-------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|--|
| Transect Number: 3A | | | | | | | | | | | | | | | | | | |
| Reading pe | Melilotus sp. | non-native grass | non-native herb | Picris echioides | Plantago lanceolata | Solanum douglasii | Class Cover | | | | Ground Cover Material | | | | | | | |
| | | | | | | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | |
| 1 | | | | | 1 | | | 1 | | | | | 1 | | | | | |
| 2 | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 3 | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 4 | | | | | | | | | | 1 | | | | | | | 1 | |
| 5 | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 6 | | | | | | | | | | 1 | | | | | | | 1 | |
| 7 | 1 | | | | | | | 1 | | | | | | | | | 1 | |
| 8 | 1 | | | | | | | 1 | | | | | | | | | 1 | |
| 9 | 1 | | | | | | | 1 | | | | | | | | | 1 | |
| 10 | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 11 | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 12 | | | | | | | | | | 1 | | | | | | | 1 | |
| 13 | | | | | | | | | | 1 | | | | | | | 1 | |
| 14 | | 1 | | | | | | 1 | | | | | | | | | 1 | |
| 15 | | 1 | | | | | | 1 | | | | | | | | | 1 | |
| 16 | 1 | | | | | | | 1 | | | | | | | | | 1 | |
| 17 | | | | | | | | | | 1 | | | | | | | 1 | |
| 18 | | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 19 | | | | | | | | | | 1 | | | | | | | 1 | |
| 20 | | | | | | | | | | 1 | | | | | | | 1 | |
| 21 | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 22 | | | | | | | | | | 1 | | | | | | | 1 | |
| 23 | 1 | | | | | | | 1 | | | | | | | | | 1 | |
| 24 | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 25 | 1 | | | | | | | 1 | | | | | | | | | 1 | |
| 26 | | | | | | | | | | 1 | | | | | | | 1 | |
| 27 | | | | | | | | | | 1 | | | | | | | 1 | |
| 28 | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 29 | | | | | | | | | | 1 | | | | | | | 1 | |
| 30 | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 31 | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 32 | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 33 | | | | | | | | | | 1 | | | | | | | 1 | |
| 34 | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 35 | | | | | | | | | | 1 | | | | | | | 1 | |
| 36 | | | | | | | | | | 1 | | | | 1 | | | 1 | |
| 37 | | 1 | | | | | | 1 | | | | | | | | | 1 | |
| 38 | | | | 1 | | | | 1 | | | | | | | | | 1 | |

| Reach: 24 | | | | | | | | | | | | | | | | |
|---------------------|---------------|------------------|-----------------|------------------|---------------------|-------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|
| Transect Number: 3A | | | | | | | | | | | | | | | | |
| Reading pe | Melilotus sp. | non-native grass | non-native herb | Picris echioides | Plantago lanceolata | Solanum douglasii | Class Cover | | | | Ground Cover Material | | | | | |
| | | | | | | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud |
| 39 | | 1 | | | | | | 1 | | | | | | | | 1 |
| 40 | | | | 1 | | | | 1 | | | | | | | | 1 |
| 41 | | | | 1 | | | | 1 | | | | 1 | | | | |
| 42 | | 1 | | | | | | 1 | | | | 1 | | | | |
| 43 | | | | | | | | | | 1 | | | | | | 1 |
| 44 | | | | | | | | | | 1 | | | | | | 1 |
| 45 | | | | | | | | | | 1 | | | | | | 1 |
| 46 | | | | | | 1 | | 1 | | | | | | | | 1 |
| 47 | | | | | | 1 | | 1 | | | | | | | | 1 |
| 48 | | | | | | | | | | 1 | | | | | | 1 |
| 49 | | | | | | | | | | 1 | | | | | | 1 |
| 50 | | | | | | | | | | 1 | | | | | | 1 |
| 51 | | | | | | | | | | 1 | | | | | | 1 |
| 52 | | | | | | | | | | 1 | | | | | | 1 |
| 53 | | | | | | | | | | 1 | | | | | | 1 |
| 54 | | | | | | | | | | 1 | | | | | | 1 |
| 55 | | | | | | | | | | 1 | | | | | | 1 |
| 56 | | | | | | | | | | 1 | | | | | | 1 |
| 57 | | | | | | | | | | 1 | | | | | | 1 |
| 58 | | | | | | | | | | 1 | | | | | | 1 |
| 59 | | | | | | | | | | 1 | | | | | | 1 |
| 60 | | | | | | | | | | 1 | | | | | | 1 |
| 61 | | | | | | | | | | 1 | | | | | | 1 |
| 62 | | | | | | | | | | 1 | | | | | | 1 |
| 63 | | | | | | | | | | 1 | | | | | | 1 |
| 64 | | | | | | | | | | 1 | | | | | | 1 |
| 65 | | | | | | | | | | 1 | | | | | | 1 |
| 66 | | | | | | | | | | 1 | | | | | | 1 |
| 67 | | | | | | | | | | 1 | | | | | | 1 |
| 68 | | | | | | | | | | 1 | | | | | | 1 |
| 69 | | | | | | | | | | 1 | | | | | | 1 |
| 70 | | | | | | | | | | 1 | | | | | | 1 |
| 71 | | | | | | | | | | 1 | | | | | | 1 |
| 72 | | | | | | | | | | 1 | | | | | | 1 |
| 73 | | | | | | | | | | 1 | | | | | | 1 |
| 74 | | | | | | | | | | 1 | | | | | | 1 |
| 75 | | | | | | | | | | 1 | | | | | | 1 |
| 76 | | | | | | | | | | 1 | | | | | | 1 |

| Reach: 24 | | | | | | | | | | | | | | | | | | |
|---------------------|----------------|------------------|-----------------|------------------|---------------------|-------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|--|
| Transect Number: 3A | | | | | | | | | | | | | | | | | | |
| Reading pe | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Mellilotus sp. | non-native grass | non-native herb | Picris echioides | Plantago lanceolata | Solanum douglasii | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | |
| 77 | | | | | | | | | | 1 | | | | | | | 1 | |
| 78 | | | | | | | | | | 1 | | | | | | | 1 | |
| 79 | | | | | | | | | | 1 | | | | | | | 1 | |
| 80 | | | | | | | | | | 1 | | | | | | | 1 | |
| 81 | | | | | | | | | | 1 | | | | | | | 1 | |
| 82 | | | | | | | | | | 1 | | | | | | | 1 | |
| 83 | | | | | | | | | | 1 | | | | | | | 1 | |
| 84 | | | | | | | | | | 1 | | | | | | | 1 | |
| 85 | | | | | | | | | | 1 | | | | | | | 1 | |
| 86 | | | | | | | | | | 1 | | | | | | | 1 | |
| 87 | | | | | | | | | | 1 | | | | | | | 1 | |
| 88 | | | | | | | | | | 1 | | | | | | | 1 | |
| 89 | | | | | | | | | | 1 | | | | | | | 1 | |
| 90 | | | | | | | | | | 1 | | | | | | | 1 | |
| 91 | | | | | | | | | | 1 | | | | | | | 1 | |
| 92 | | | | | | | | | | 1 | | | | | | | 1 | |
| 93 | | | | | | | | | | 1 | | | | | | | 1 | |
| 94 | | | | | | | | | | 1 | | | | | | | 1 | |
| 95 | | | | | | | | | | 1 | | | | | | | 1 | |
| 96 | | | | | | | | | | 1 | | | | | | | 1 | |
| 97 | | | | | | | | | | 1 | | | | | | | 1 | |
| 98 | | | | | | | | | | 1 | | | | | | | 1 | |
| 99 | | | | | | | | | | 1 | | | | | | | 1 | |
| 100 | | | | | | | | | | 1 | | | | | | | 1 | |
| Totals | 6 | 5 | 1 | 12 | 4 | 2 | 2 | 28 | 0 | 70 | 0 | 1 | 3 | 0 | 0 | 38 | 58 | |
| | | | | | | | Total Class Cover: | | | | | | | | | | | |
| | | | | | | | Native | | | 2 | | | | | | | | |
| | | | | | | | non-native | | | 28 | | | | | | | | |
| | | | | | | | no vegetation | | | 70 | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|-------------------|---------------|------------------|------------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|--|--|
| Transect Number: 3B | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading pe | Ambrosia psilostachya | Helianthus annuus | Melilotus sp. | non-native grass | Picris echioides | Plantago lanceolata | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | |
| 1 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 2 | 2 | | | | | | 1 | | | | | | | | | | 1 | | |
| 3 | | | | | | | | 1 | | | | | | | | | 1 | | |
| 4 | | | | | | | | 1 | | | | | | | | | 1 | | |
| 5 | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 6 | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 7 | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 8 | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 9 | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 10 | | | | | | 1 | | 1 | | | | | | | | | 1 | | |
| 11 | | | | 1 | | | | 1 | | | | | | | | | 1 | | |
| 12 | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 13 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 14 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 15 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 16 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 17 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 18 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 19 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 20 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 21 | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 22 | | | | 1 | | | | 1 | | | | | | | | | 1 | | |
| 23 | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 24 | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 25 | | | | 1 | | | | 1 | | | | | | | | | 1 | | |
| 26 | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 27 | | | | 1 | | | | 1 | | | | | | | | | 1 | | |
| 28 | | | | | | | | | | 1 | | | | | | | 1 | | |
| 29 | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 30 | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 31 | | | 1 | | | | | 1 | | | | | | | | | 1 | | |
| 32 | | | | 1 | | | | 1 | | | | | | | | | 1 | | |
| 33 | | | 1 | 1 | | | | 1 | | | | | | | | | 1 | | |
| 34 | | | | | 1 | | | 1 | | | | | | | | | 1 | | |
| 35 | | | | 1 | | | | 1 | | | | | | | | | 1 | | |
| 36 | | | | 1 | | | | 1 | | | | | | | | | 1 | | |
| 37 | | | | 1 | | | | 1 | | | | | | | | | 1 | | |
| 38 | | | | | 1 | | | 1 | | | | | | | | | 1 | | |

| Reach: 24 | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|-------------------|---------------|------------------|------------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|
| Transect Number: 3B | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| | Ambrosia psilostachya | Helianthus annuus | Melilotus sp. | non-native grass | Picris echioides | Plantago lanceolata | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap |
| 39 | | | | | 1 | | | 1 | | | | | | | | 1 | |
| 40 | | | 1 | | | | | 1 | | | | | | | | 1 | |
| 41 | | | | | 1 | | | 1 | | | | | | | | 1 | |
| 42 | | | | | | | | | 1 | | | | | | | 1 | |
| 43 | | | 1 | | | | | 1 | | | | | | | | 1 | |
| 44 | | | 1 | | | | | 1 | | | | | | | | 1 | |
| 45 | | | 1 | | | | | 1 | | | | | | | | 1 | |
| 46 | | | 1 | | | | | 1 | | | | | | | | 1 | |
| 47 | | | 1 | | | | | 1 | | | | | | | | 1 | |
| 48 | | | 1 | | | | | 1 | | | | | | | | 1 | |
| 49 | | | | 1 | | | | 1 | | | | | | | | 1 | |
| 50 | | | | | 1 | | | 1 | | | | | | | | 1 | |
| 51 | | | | | | 1 | | 1 | | | | | | | | 1 | |
| 52 | | | 1 | | | | | 1 | | | | | | | | 1 | |
| 53 | 1 | | | | | | | 1 | | | | | | | | | 1 |
| 54 | | | | | 1 | | | 1 | | | | | | | | | 1 |
| 55 | | | | | 1 | | | 1 | | | | | | | | | 1 |
| 56 | | | | | 1 | | | 1 | | | | | | | | | 1 |
| 57 | | | | | 1 | | | 1 | | | | | | | | | 1 |
| 58 | | | | | | | | | 1 | | | | | | | | 1 |
| 59 | | | | | | | | | 1 | | | | | | | | 1 |
| 60 | | | | | | | | | 1 | | | | | | | | 1 |
| 61 | | | | | | | | | 1 | | | | | | | | 1 |
| 62 | | | | | | | | | 1 | | | | | | | | 1 |
| 63 | | | | | | | | | 1 | | | | | | | | 1 |
| 64 | | | | | | | | | 1 | | | | | | | | 1 |
| 65 | | | | | | | | | 1 | | | | | | | | 1 |
| 66 | | | | | | | | | 1 | | | | | | | | 1 |
| 67 | | | | | | | | | 1 | | | | | | | | 1 |
| 68 | | | | | | | | | 1 | | | | | | | | 1 |
| 69 | | | | | | | | | 1 | | | | | | | | 1 |
| 70 | | | | | | | | | 1 | | | | | | | | 1 |
| 71 | | | | | | | | | 1 | | | | | | | | 1 |
| 72 | | | | | | | | | 1 | | | | | | | | 1 |
| 73 | | | | | | | | | 1 | | | | | | | | 1 |
| 74 | | | | | | | | | 1 | | | | | | | | 1 |
| 75 | | | | | | | | | 1 | | | | | | | | 1 |
| 76 | | | | | | | | | 1 | | | | | | | | 1 |

| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|-------------------|---------------|------------------|------------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|---|--|
| Transect Number: 3B | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading pe | Ambrosia psilostachya | Helianthus annuus | Melilotus sp. | non-native grass | Picris echioides | Plantago lanceolata | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | |
| 77 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 78 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 79 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 80 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 81 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 82 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 83 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 84 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 85 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 86 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 87 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 88 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 89 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 90 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 91 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 92 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 93 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 94 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 95 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 96 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 97 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 98 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 99 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 100 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 101 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 102 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 103 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 104 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 105 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 106 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 107 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 108 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 109 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 110 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 111 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 112 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 113 | | | | | | | | | | 1 | | | | | | | | 1 | |
| 114 | | | | | | | | | | 1 | | | | | | | | 1 | |

| Reach: 24 | | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|-------------------|---------------|------------------|------------------|---------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|--|--|--|
| Transect Number: 3B | | | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Ambrosia psilostachya | Helianthus annuus | Melilotus sp. | non-native grass | Picris echioides | Plantago lanceolata | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | | |
| Totals | 2 | 1 | 22 | 10 | 9 | 4 | 1 | 45 | 0 | 68 | 0 | 0 | 0 | 0 | 0 | 52 | 62 | | | |
| | | | | | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | | | | | Native | | | 0.877193 | | | | | | | | | | |
| | | | | | | | non-native | | | 39.47368 | | | | | | | | | | |
| | | | | | | | no vegetation | | | 59.64912 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

| Reach: | | | | | | | | | | | | | | | | | | |
|--------------------|-------------|--------------------|------------|------|----------|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Transect Number: | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | |
| Reading pe | Scirpus sp. | Native | Non-native | Both | No Plant | water | | | | | | | | | | | | |
| 1 | | | | | 1 | 1 | | | | | | | | | | | | |
| 2 | | | | | 1 | 1 | | | | | | | | | | | | |
| 3 | | | | | 1 | 1 | | | | | | | | | | | | |
| 4 | | | | | 1 | 1 | | | | | | | | | | | | |
| 5 | | | | | 1 | 1 | | | | | | | | | | | | |
| 6 | | | | | 1 | 1 | | | | | | | | | | | | |
| 7 | | | | | 1 | 1 | | | | | | | | | | | | |
| 8 | | | | | 1 | 1 | | | | | | | | | | | | |
| 9 | | | | | 1 | 1 | | | | | | | | | | | | |
| 10 | | | | | 1 | 1 | | | | | | | | | | | | |
| 11 | | | | | 1 | 1 | | | | | | | | | | | | |
| 12 | | | | | 1 | 1 | | | | | | | | | | | | |
| 13 | | | | | 1 | 1 | | | | | | | | | | | | |
| 14 | | | | | 1 | 1 | | | | | | | | | | | | |
| 15 | | | | | 1 | 1 | | | | | | | | | | | | |
| 16 | | | | | 1 | 1 | | | | | | | | | | | | |
| 17 | 1 | 1 | | | | 1 | | | | | | | | | | | | |
| 18 | 1 | 1 | | | | 1 | | | | | | | | | | | | |
| 19 | 1 | 1 | | | | 1 | | | | | | | | | | | | |
| 20 | 1 | 1 | | | | 1 | | | | | | | | | | | | |
| 21 | 1 | 1 | | | | 1 | | | | | | | | | | | | |
| Totals | 5 | 5 | 0 | 0 | 16 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Total Class Cover: | | | | | | | | | | | | | | | | |
| | | | | | 23.80952 | | | | | | | | | | | | | |
| | | | | | 0 | | | | | | | | | | | | | |
| | | | | | 76.19048 | | | | | | | | | | | | | |

Total Class Cover Percent Average for 24-4A,B, and C:

| | |
|---------------|----------|
| Native | 1.39 |
| non-native | 20.99667 |
| no vegetation | 77.33667 |

| Reach: 24 | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
|---------------------|-------------------|--------------------|---------------|------------------|-----------------|------------------|---------------------|---------------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|-----|----------------|--|
| Transect Number: 4A | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Chenopodium album | Ludwigia peploides | Melilotus sp. | non-native grass | non-native herb | Picris echioides | Plantago lanceolata | Scirpus californica | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | |
| 1 | | 1 | | | | | | 1 | 1 | | | | | | | | | | 1 | |
| 2 | | 1 | | | | | | | 1 | | | | | | | | | | 1 | |
| 3 | | | | | | | | | 1 | | | | | | | | | | 1 | |
| 4 | | | | | | | | | 1 | | | | | | | | | | 1 | |
| 5 | | | | | | | | | 1 | | | | | | | | | | 1 | |
| 6 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 7 | | | | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 8 | | | | 1 | | | | | | 1 | | | | | | | | | 1 | |
| 9 | | | | 1 | | | | | | 1 | | | | | | | | | 1 | |
| 10 | | | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 11 | | | | 1 | | | | | | 1 | | | | | | | | | 1 | |
| 12 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 13 | | | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 14 | | | 1 | | | | | | | 1 | | | | | | | | | 1 | |
| 15 | | | | 1 | | | | | | 1 | | | | | | | | | 1 | |
| 16 | | | | 1 | | | | | | 1 | | | | | | | | | 1 | |
| 17 | | | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 18 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 19 | | | | 1 | | | | | | 1 | | | | | | | | | 1 | |
| 20 | | | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 21 | | | | 1 | | | | | | 1 | | | | | | | | | 1 | |
| 22 | | | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 23 | | | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 24 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 25 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 26 | | | | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 27 | | | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 28 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 29 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 30 | | | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 31 | | | | | | | 1 | | | 1 | | | | | | | | | 1 | |
| 32 | | | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 33 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 34 | | | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 35 | | | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 36 | | | | | 1 | 1 | | | | 1 | | | | | | | | | 1 | |
| 37 | | | | 1 | | | | | | 1 | | | | | | | | | 1 | |
| 38 | | | 1 | | | | | | | 1 | | | | | | | | | 1 | |
| 39 | | | | | | 1 | | | | 1 | | | | | | | | | 1 | |
| 40 | | | | 1 | | | | | | 1 | | | | | | | | | 1 | |
| 41 | | | 1 | | | | | | | 1 | | | | | | | | | 1 | |

| Reach: 24 | | | | | | | | | | | | | | | | | | | | |
|---------------------|-------------------|--------------------|---------------|------------------|-----------------|------------------|---------------------|---------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|---|
| Transect Number: 4A | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Chenopodium album | Ludwigia peploides | Melilotus sp. | non-native grass | non-native herb | Picris echioides | Plantago lanceolata | Scirpus californica | Class Cover | | | | Ground Cover Material | | | | | | | |
| | | | | | | | | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | |
| 42 | | | 1 | | | | | | | 1 | | | | | | | | 1 | | |
| 43 | | | 1 | | | | | | | 1 | | | | | | | | 1 | | |
| 44 | | | 1 | | | | | | | 1 | | | | | | | | 1 | | |
| 45 | | | 1 | | | | | | | 1 | | | | | | | | 1 | | |
| 46 | | | 1 | | | | | | | | | | | | | | | 1 | | |
| 47 | | | 1 | | | | | | | 1 | | | | | | | | 1 | | |
| 48 | | | 1 | | | | | | | 1 | | | | | | | | 1 | | |
| 49 | | | | | | | | | | | | 1 | | | | | | | 1 | |
| 50 | | | 1 | | | | | | | 1 | | | | | | | | 1 | | |
| 51 | | | | | | 1 | | | | 1 | | | | | | | | 1 | | |
| 52 | | | | | | 1 | | | | 1 | | | | | 1 | | | | | |
| 53 | | | | | | 1 | | | | 1 | | | | | | | | 1 | | |
| 54 | | | | | | 1 | | | | 1 | | | | | | | | 1 | | |
| 55 | | | | | | 1 | | | | 1 | | | | | | | | 1 | | |
| 56 | | | | | | 1 | | | | 1 | | | | | | | | 1 | | |
| 57 | | | | | | 1 | | | | 1 | | | | | 1 | | | | | |
| 58 | 1 | | | | | | | | | 1 | | | | | 1 | | | | | |
| 59 | | | | | | 1 | | | | 1 | | | | | 1 | | | | | |
| 60 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 61 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 62 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 63 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 64 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 65 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 66 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 67 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 68 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 69 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 70 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 71 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 72 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 73 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 74 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 75 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 76 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 77 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 78 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 79 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 80 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 81 | | | | | | | | | | | | 1 | | | | | | | | 1 |
| 82 | | | | | | | | | | | | 1 | | | | | | | | 1 |

| Reach: 24 | | | | | | | | | | Transect Number: 4A | | | | | | | | | | |
|---------------|-------------------|--------------------|---------------|------------------|-----------------|------------------|---------------------|---------------------|-----------------------|---------------------|------|----------|------|-------------|-------------|---------------------|-------|-----|----------------|--|
| Reading pe | Class Cover | | | | | | | | Ground Cover Material | | | | | | | | | | | |
| | Chenopodium album | Ludwigia peploides | Melilotus sp. | non-native grass | non-native herb | Picris echioides | Plantago lanceolata | Scirpus californica | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | |
| 83 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 84 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 85 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 86 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 87 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 88 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 89 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 90 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 91 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 92 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 93 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 94 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 95 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 96 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 97 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 98 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 99 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 100 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 101 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 102 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 103 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 104 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 105 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 106 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 107 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 108 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 109 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 110 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 111 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 112 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 113 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 114 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 115 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 116 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 117 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 118 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 119 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| 120 | | | | | | | | | | | 1 | | | | | | | | 1 | |
| Totals | 1 | 2 | 11 | 9 | 3 | 16 | 6 | 5 | 5 | 44 | 0 | 70 | 0 | 0 | 4 | 0 | 0 | 55 | 61 | |
| | | | | | | | | | Total Class Cover: | | | | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | | | |
|---------------------|-------------------|---------------|------------------|---------------------|-----------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----|----------------|--|--|--|---|
| Transect Number: 4B | | | | | | | | | | | | | | | | | | | |
| Reading pe | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | | |
| | Chenopodium album | Melilotus sp. | Picris echioides | Plantago lanceolata | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | | | |
| 1 | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | |
| 11 | | 1 | | | | 1 | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | |
| 13 | | 1 | | | | 1 | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | |
| 15 | | 1 | | | | 1 | | | | | | | | | | | | | 1 |
| 16 | | 1 | | | | 1 | | | | | | | | | | | | | 1 |
| 17 | | 1 | | | | 1 | | | | | | | | | | | | | 1 |
| 18 | | 1 | | | | 1 | | | | | | | | | | | | | 1 |
| 19 | | 1 | | | | 1 | | | | | | | | | | | | | 1 |
| 20 | | | | 1 | | 1 | | | | | | | | | | | | | 1 |
| 21 | | | | | | | | | | | | | | | | | | | 1 |
| 22 | | | | 1 | | 1 | | | | | | | | | | | | | 1 |
| 23 | | 1 | | | | 1 | | | | | | | | | | | | | 1 |
| 24 | | 1 | | | | 1 | | | | | | | | | | | | | 1 |
| 25 | | | | 1 | | 1 | | | | | | | | | | | | | 1 |
| 26 | 1 | | | 1 | | 1 | | | | | | | | | | | | | 1 |
| 27 | | | | 1 | | 1 | | | | | | | | | | | | | 1 |
| 28 | | 1 | | | | 1 | | | | | | | | | | | | | 1 |
| 29 | | | | | | | | | | | | | | | | | | | 1 |
| 30 | | | | 1 | | 1 | | | | | | | | | | | | | 1 |
| 31 | | | | | | 1 | | | | | | | | | | | | | 1 |
| 32 | | | | 1 | | 1 | | | | | | | | | | | | | 1 |
| 33 | | | | 1 | | 1 | | | | | | | | | | | | | 1 |
| 34 | | | | 1 | | 1 | | | | | | | | | | | | | 1 |
| 35 | | | | | | | | | | | | | | | | | | | 1 |
| 36 | | | | 1 | | 1 | | | | | | | | | | | | | 1 |
| 37 | | | | 1 | | 1 | | | | | | | | | | | | | 1 |
| 38 | | | | 1 | | 1 | | | | | | | | | | | | | 1 |

| Reach: 24 | | | | | | | | | | | | | | | | | |
|---------------------|-------------------|---------------|------------------|---------------------|-----------------------|------------|------|----------|------|-------------|-------------|---------------------|-------|-----|----------------|--|---|
| Transect Number: 4B | | | | | | | | | | | | | | | | | |
| Reading pe | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | |
| | Chenopodium album | Melilotus sp. | Picris echioides | Plantago lanceolata | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | |
| 39 | | | 1 | | | 1 | | | | | | | | | | | 1 |
| 40 | | | 1 | | | 1 | | | | | | | | | | | 1 |
| 41 | | | | | | | | 1 | | | | | | | | | 1 |
| 42 | | | | | | | | 1 | | | | | | | | | 1 |
| 43 | | | | | | | | 1 | | | | | | | | | 1 |
| 44 | | | | | | | | 1 | | | | | | | | | 1 |
| 45 | | | | | | | | 1 | | | | | | | | | 1 |
| 46 | | | | | | | | 1 | | | | | | | | | 1 |
| 47 | | | | | | | | 1 | | | | | | | | | 1 |
| 48 | | | | | | | | 1 | | | | | | | | | 1 |
| 49 | | | | | | | | 1 | | | | | | | | | 1 |
| 50 | | | | | | | | 1 | | | | | | | | | 1 |
| 51 | | | | | | | | 1 | | | | | | | | | 1 |
| 52 | | | | | | | | 1 | | | | | | | | | 1 |
| 53 | | | | | | | | 1 | | | | | | | | | 1 |
| 54 | | | | | | | | 1 | | | | | | | | | 1 |
| 55 | | | | | | | | 1 | | | | | | | | | 1 |
| 56 | | | | | | | | 1 | | | | | | | | | 1 |
| 57 | | | | | | | | 1 | | | | | | | | | 1 |
| 58 | | | | | | | | 1 | | | | | | | | | 1 |
| 59 | | | | | | | | 1 | | | | | | | | | 1 |
| 60 | | | | | | | | 1 | | | | | | | | | 1 |
| 61 | | | | | | | | 1 | | | | | | | | | 1 |
| 62 | | | | | | | | 1 | | | | | | | | | 1 |
| 63 | | | | | | | | 1 | | | | | | | | | 1 |
| 64 | | | | | | | | 1 | | | | | | | | | 1 |
| 65 | | | | | | | | 1 | | | | | | | | | 1 |
| 66 | | | | | | | | 1 | | | | | | | | | 1 |
| 67 | | | | | | | | 1 | | | | | | | | | 1 |
| 68 | | | | | | | | 1 | | | | | | | | | 1 |
| 69 | | | | | | | | 1 | | | | | | | | | 1 |
| 70 | | | | | | | | 1 | | | | | | | | | 1 |
| 71 | | | | | | | | 1 | | | | | | | | | 1 |
| 72 | | | | | | | | 1 | | | | | | | | | 1 |
| 73 | | | | | | | | 1 | | | | | | | | | 1 |
| 74 | | | | | | | | 1 | | | | | | | | | 1 |
| 75 | | | | | | | | 1 | | | | | | | | | 1 |
| 76 | | | | | | | | 1 | | | | | | | | | 1 |

| Reach: 24 | | | | | | | | | | | | | | | | | | |
|---------------------|-------------------|---------------|------------------|---------------------|-----------------------|------------|----------|----------|------|-------------|-------------|---------------------|-------|-----|----------------|----|---|--|
| Transect Number: 4B | | | | | | | | | | | | | | | | | | |
| Reading pe | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| | Chenopodium album | Melilotus sp. | Picris echioides | Plantago lanceolata | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | | | |
| 77 | | | | | | | | | | | | | | | | | 1 | |
| 78 | | | | | | | | | | | | | | | | | 1 | |
| 79 | | | | | | | | | | | | | | | | | 1 | |
| 80 | | | | | | | | | | | | | | | | | 1 | |
| 81 | | | | | | | | | | | | | | | | | 1 | |
| 82 | | | | | | | | | | | | | | | | | 1 | |
| 83 | | | | | | | | | | | | | | | | | 1 | |
| 84 | | | | | | | | | | | | | | | | | 1 | |
| 85 | | | | | | | | | | | | | | | | | 1 | |
| 86 | | | | | | | | | | | | | | | | | 1 | |
| 87 | | | | | | | | | | | | | | | | | 1 | |
| 88 | | | | | | | | | | | | | | | | | 1 | |
| 89 | | | | | | | | | | | | | | | | | 1 | |
| 90 | | | | | | | | | | | | | | | | | 1 | |
| 91 | | | | | | | | | | | | | | | | | 1 | |
| 92 | | | | | | | | | | | | | | | | | 1 | |
| 93 | | | | | | | | | | | | | | | | | 1 | |
| 94 | | | | | | | | | | | | | | | | | 1 | |
| 95 | | | | | | | | | | | | | | | | | 1 | |
| Totals | 1 | 10 | 10 | 4 | 0 | 25 | 0 | 70 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 57 | | |
| | | | | | Total Class Cover: | | | | | | | | | | | | | |
| | | | | | Native | | 0 | | | | | | | | | | | |
| | | | | | non-native | | 26.31579 | | | | | | | | | | | |
| | | | | | no vegetation | | 73.68421 | | | | | | | | | | | |

| Reach: 24 | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|--------------------|------------|------|---------------|-------------|-------------|-------------|---------------------|-----------------------|-----|----------|--|--|--|--|--|--|--|--|--|
| Transect Number: 4C | | Vegetation species | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | | | | | | | |
| 1 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 2 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 3 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 4 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 5 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 6 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 7 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 8 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 9 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 10 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 11 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 12 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 13 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 14 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 15 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 16 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 17 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| 18 | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | | | | | | | | | |
| | | Total Class Cover: | | | | | | | | | | | | | | | | | | | |
| | | | | | Native | | | | | 0 | | | | | | | | | | | |
| | | | | | non-native | | | | | 0 | | | | | | | | | | | |
| | | | | | no vegetation | | | | | 100 | | | | | | | | | | | |

Total Class Cover Percent Average for 25-1A,B, and C:

| | |
|---------------|----------|
| Native | 26.5 |
| non-native | 16.98 |
| no vegetation | 58.56333 |

| Reach: 25 | | | | | | | | | | | | | | | | | | | | |
|---------------------|------------------------------|-------------------------|------------------|----------------------|------------------|---------------------------------|----------------------------|------------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|-------|------------------|
| Transect Number: 1A | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| Reading pe | <i>Euthamia occidentalis</i> | <i>Ipomoea purpurea</i> | non-native grass | <i>Polygonum sp.</i> | <i>Rumex sp.</i> | <i>Salix gooddingii</i> -mature | <i>Scirpus californica</i> | <i>Typha latifolia</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | trash | ungROUTED riprap |
| 1 | | | | | | 1 | | 1 | 1 | | | | | | | | | 1 | | |
| 2 | | | | | | 1 | | | 1 | | | | | | | | | 1 | | |
| 3 | | | | | | 1 | | | 1 | | | | | | | | | | 1 | |
| 4 | | | | | | 1 | | | 1 | | | | | | 1 | | | | | |
| 5 | | | | | | 1 | | 1 | 1 | | | | | | 1 | | | | | |
| 6 | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 7 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 8 | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 9 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 10 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 11 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 12 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 13 | | 1 | | | | | | | | 1 | | | | | 1 | | | | | |
| 14 | | 1 | | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 15 | | 1 | | | | 1 | | 1 | | | 1 | | | | 1 | | | | | |
| 16 | | 1 | | | | | | 1 | | | 1 | | | | | | | 1 | | |
| 17 | | | | | | 1 | | | 1 | | | | | | 1 | | | | | |
| 18 | | | | | | 1 | | | 1 | | | | | | 1 | | | | | |
| 19 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 20 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 21 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 22 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 23 | | | | | | | 1 | | 1 | | | | | | | 1 | | | | |
| 24 | | | | | | | 1 | | 1 | | | | | | | 1 | | | | |
| 25 | | | | | | | | | | | 1 | | | | | 1 | | | | |
| 26 | | | | | | | | 1 | 1 | | | | | | | 1 | | | | |
| 27 | | | | | | | | 1 | 1 | | | | | | | 1 | | | | |
| 28 | | | | | | | | 1 | 1 | | | | | | | | | 1 | | |
| 29 | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 30 | | | | | | | | 1 | 1 | | | | | | | | | 1 | | |
| 31 | | | | | | | | 1 | 1 | | | | | | | | | 1 | | |
| 32 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 33 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 34 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 35 | | | | | | | 1 | | 1 | | | | | | 1 | | | | | |
| 36 | | | | | | | 1 | | 1 | | | | | | 1 | | | | | |
| 37 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 38 | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 39 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 40 | | | | | | | | | | | 1 | | | | 1 | | | | | |
| 41 | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 42 | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 43 | | | | | | | | | | | 1 | | | | | | | 1 | | |

| Reach: 25 | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
|---------------------|------------------------------|-------------------------|------------------|----------------------|------------------|---------------------------------|----------------------------|------------------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|-------|------------------|
| Transect Number: 1A | | | | | | | | | | | | | | | | | | | | |
| Reading pe | <i>Euthamia occidentalis</i> | <i>Ipomoea purpurea</i> | non-native grass | <i>Polygonum sp.</i> | <i>Rumex sp.</i> | <i>Salix gooddingii</i> -mature | <i>Scirpus californica</i> | <i>Typha latifolia</i> | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | trash | ungrouted riprap |
| 44 | | | | | | | | 1 | 1 | | | | | | | | | 1 | | |
| 45 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 46 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 47 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 48 | | | | | 1 | | | | | 1 | | | | | 1 | | | | | |
| 49 | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 50 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 51 | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 52 | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 53 | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 54 | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 55 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 56 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 57 | | | | | | | | | | | | 1 | | 1 | | | | | | |
| 58 | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 59 | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 60 | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 61 | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 62 | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 63 | | | | | | | | | | | | 1 | | | | | | 1 | | |
| 64 | | | | | | | | | | | | 1 | | | | | | | | |
| 65 | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 66 | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 67 | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 68 | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 69 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 70 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 71 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 72 | | | 1 | | | | | | | 1 | | | | | 1 | | | | | |
| 73 | | | 1 | | | 1 | | | | | 1 | | | | 1 | | | | | |
| 74 | | | | | | 1 | | | 1 | | | | | | 1 | | | | | |
| 75 | | | | | | | | 1 | 1 | | | | | | 1 | | | | | |
| 76 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 77 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 78 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 79 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 80 | | | | | | | | | | | | 1 | | | 1 | | | | | |
| 81 | | | | 1 | | | | | | 1 | | | | | 1 | | | | | |
| 82 | | | | 1 | | | | | | 1 | | | | | 1 | | | | | |
| 83 | | | | 1 | | | | | | 1 | | | | | 1 | | | | | |
| 84 | | | | 1 | | | | | | 1 | | | | | 1 | | | | | |
| 85 | | | | 1 | | | 1 | | | | 1 | | | | 1 | | | | | |
| 86 | | | | 1 | | | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
|---------------------|------------------------------|-------------------------|------------------|----------------------|------------------|---------------------------------|----------------------------|------------------------|--|-------------|----------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|-----|-------|------------------|--|
| Transect Number: 1A | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | <i>Euthamia occidentalis</i> | <i>Ipomoea purpurea</i> | non-native grass | <i>Polygonum sp.</i> | <i>Rumex sp.</i> | <i>Salix gooddingii</i> -mature | <i>Scirpus californica</i> | <i>Typha latifolia</i> | | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | trash | ungrouted riprap | |
| 87 | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | |
| 88 | | | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 89 | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | |
| 90 | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | |
| 91 | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 92 | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 93 | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | |
| 94 | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | |
| 95 | | | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 96 | | | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 97 | | | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 98 | | | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 99 | | | | | | | | | | | | | 1 | | | | | | | | | | |
| 100 | | | | | | | 1 | | | 1 | | | | | | 1 | | | | | | | |
| 101 | | | | 1 | | | | | | 1 | 1 | | | | | 1 | | | | | | | |
| 102 | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | |
| 103 | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | |
| 104 | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | |
| 105 | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | |
| 106 | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | |
| Totals | 5 | 4 | 2 | 7 | 1 | 11 | 9 | 20 | | 38 | 9 | 5 | 55 | 0 | 1 | 72 | 0 | 5 | 22 | 6 | 0 | | |
| Total Class Cover: | | | | | | | | | | | | | | | | | | | | | | | |
| Native | | | | | | | | | | | 40.56604 | | | | | | | | | | | | |
| non-native | | | | | | | | | | | 13.20755 | | | | | | | | | | | | |
| no vegetation | | | | | | | | | | | 51.88679 | | | | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
|---------------------|-----------------------|------------------|-------------|----------------------|--------------------|------------------|-----------------|---------------------|---------------|---------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------|------------------|-------|--|
| Transect Number: 1B | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Baccharis salicifolia | Cotula australis | Cyperus sp. | Leptochloa uninervia | Ludwigia peploides | non-native grass | non-native herb | Plantago lanceolata | Polygonum sp. | Scirpus californica | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap | trash | |
| 1 | | | | | | | | | | 1 | | 1 | | | | | | | | | | | | 1 | |
| 2 | | | | | | | | | 1 | | | | 1 | | | | | | | | | | | 1 | |
| 3 | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | | | | | |
| 4 | | | | | | | | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 5 | | | | | | | | | 1 | | | | 1 | | | | | 1 | | | | | | | |
| 6 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | |
| 7 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | |
| 8 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | |
| 9 | | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| 10 | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | | | | | |
| 11 | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | | | | | |
| 12 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | |
| 13 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | |
| 14 | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | | | | | |
| 15 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | |
| 16 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | |
| 17 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | |
| 18 | | | | | | | | | | | | | | | 1 | | 1 | | | | 1 | | | | |
| 19 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | |
| 20 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | |
| 21 | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | | | | | |
| 22 | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | | | | | |
| 23 | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | | | | | |
| 24 | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | | | | | |
| 25 | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | |
| 26 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | | 1 | |
| 27 | | | | | | | | | | | | 1 | | | | | 1 | | | | | | | 1 | |
| 28 | | | | | | | | | | | | 1 | | | | | 1 | | | | | | | 1 | |
| 29 | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | 1 | |
| 30 | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | 1 | |
| 31 | | | | | 1 | | | | | | | 1 | | | | | | | 1 | | | | | 1 | |
| 32 | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | 1 | |
| 33 | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | 1 | |
| 34 | | | | | 1 | | | | | | | 1 | | | | | | | 1 | | | | | 1 | |
| 35 | | | | | 1 | | | | | | | 1 | | | | | | | 1 | | | | | 1 | |
| 36 | | | | | | 1 | | | | | | | 1 | | | | | | 1 | | | | | 1 | |
| 37 | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 38 | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | 1 | |
| 39 | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | 1 | |
| 40 | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | |
| 41 | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | |
| 42 | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | |
| 43 | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | |
| 44 | 1 | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | |
| 45 | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | |
| 46 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | 1 | |
| 47 | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 48 | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 49 | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | 1 | |
| 50 | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | 1 | |

| Reach: 25 | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
|---------------------|-----------------------|------------------|-------------|----------------------|--------------------|------------------|-----------------|---------------------|---------------|---------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------|------------------|-------|
| Transect Number: 1B | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Baccharis salicifolia | Cotula australis | Cyperus sp. | Leptochloa uninervia | Ludwigia peploides | non-native grass | non-native herb | Plantago lanceolata | Polygonum sp. | Scirpus californica | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap | trash |
| 51 | | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | |
| 52 | | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | |
| 53 | | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | |
| 54 | | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | |
| 55 | | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | |
| 56 | 1 | 1 | | | | | | | | | | | | 1 | | | | | | | | 1 | | |
| 57 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 58 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 59 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 60 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 61 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 62 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 63 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 64 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 65 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 66 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 67 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 68 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 69 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 70 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 71 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 72 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 73 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 74 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 75 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 76 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 77 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 78 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 79 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 80 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 81 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 82 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 83 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 84 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 85 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 86 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 87 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 88 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 89 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 90 | | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | |
| 91 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 92 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| 93 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| 94 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| 95 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| 96 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| 97 | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | |
| 98 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| 99 | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | | | 1 | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
|---------------------|-----------------------|------------------|-------------|----------------------|--------------------|------------------|-----------------|---------------------|---------------|---------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------|------------------|-------|
| Transect Number: 1B | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Baccharis salicifolia | Cotula australis | Cyperus sp. | Leptochloa uninervia | Ludwigia peploides | non-native grass | non-native herb | Plantago lanceolata | Polygonum sp. | Scirpus californica | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap | trash |
| 101 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 102 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 103 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 104 | | | | | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 105 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 106 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 107 | | | | | | | | | | | | | | | 1 | | | | | | 1 | | | |
| 108 | | | | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | |
| 109 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 110 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 111 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 112 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 113 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 114 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 115 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 116 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 117 | | | | | | | 1 | | | | | | 1 | | | | | | | | | 1 | | |
| 118 | | | | | | | | | | | | | | | 1 | | 1 | | | | | 1 | | |
| 119 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 120 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 121 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 122 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 123 | 1 | | | | | | | | | | | 1 | | | | | | | | | | 1 | | |
| 124 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 125 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 126 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 127 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 128 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 129 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 130 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 131 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 132 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 133 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 134 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 135 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 136 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 137 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 138 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 139 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 140 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 141 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 142 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 143 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 144 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 145 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 146 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| 147 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 148 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 149 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |
| 150 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | |

| Reach: 25 | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
|---------------------|-----------------------|------------------|-------------|----------------------|--------------------|------------------|-----------------|---------------------|---------------|---------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------|------------------|-------|--|--|
| Transect Number: 1B | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Baccharis salicifolia | Cotula australis | Cyperus sp. | Leptochloa uninervia | Ludwigia peploides | non-native grass | non-native herb | Plantago lanceolata | Polygonum sp. | Scirpus californica | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap | trash | | |
| 151 | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | | |
| 152 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 153 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 154 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 155 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 156 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 157 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 158 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 159 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | | |
| 160 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 161 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 162 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 163 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 164 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 165 | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | | | |
| 166 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 167 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 168 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 169 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 170 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 171 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 172 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 173 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 174 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 175 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 176 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 177 | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | | | |
| 178 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 179 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 180 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 181 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 182 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 183 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 184 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 185 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 186 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 187 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | | | |
| 188 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 189 | | | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| 190 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 191 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | | | |
| 192 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| 193 | | | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| 194 | | | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| 195 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 196 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| 197 | | | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| 198 | | | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| 199 | | | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| 200 | | | | | | | | | | | | | | 1 | | | | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------|------------------|-------------|----------------------|--------------------|------------------|-----------------|---------------------|---------------|---------------------|-----------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------|------------------|-------|
| Transect Number: 1B | | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Baccharis salicifolia | Cotula australis | Cyperus sp. | Leptochloa uninervia | Ludwigia peploides | non-native grass | non-native herb | Plantago lanceolata | Polygonum sp. | Scirpus californica | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap | trash |
| 201 | | | | | | 1 | | | | | | 1 | | | | | | | | | 1 | | | |
| 202 | | | | | | 1 | | | | | | 1 | | | | | | | | | 1 | | | |
| 203 | | | | | | 1 | | | | | | 1 | | | | | | | | | 1 | | | |
| 204 | | | | | | 1 | | | | | | 1 | | | | | | | | | 1 | | | |
| 205 | | | | | | 1 | | | | | | 1 | | | | | | | | | 1 | | | |
| 206 | | | | | | | | 1 | | | | 1 | | | | | | | | | 1 | | | |
| 207 | | | | | | 1 | | | | | | 1 | | | | | | | | | 1 | | | |
| 208 | | | | | | 1 | | | | | | 1 | | | | | | | | | 1 | | | |
| 209 | | | | | | 1 | | | | | | 1 | | | | | | | | | 1 | | | |
| 210 | | | | | | 1 | | | | | | 1 | | | | | | | | | 1 | | | |
| 211 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 212 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 213 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 214 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 215 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 216 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | 1 |
| 217 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | | | | | |
| 218 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| 219 | | | | | | 1 | | | | | | 1 | | | | | 1 | | | | | | | |
| 220 | | | | | | 1 | | | | | | 1 | | | | | 1 | | | | | | | |
| Totals | 4 | 1 | 2 | 2 | 6 | 67 | 1 | 1 | 11 | 1 | 10 | 20 | 82 | 1 | 117 | 0 | 79 | 40 | 0 | 2 | 98 | 0 | 0 | 1 |
| | | | | | | | | | | | | Total Class Cover: | | | | | | | | | | | | |
| | | | | | | | | | | | | Native | | | | 9.545455 | | | | | | | | |
| | | | | | | | | | | | | non-native | | | | 37.72727 | | | | | | | | |
| | | | | | | | | | | | | no vegetation | | | | 53.18182 | | | | | | | | |

| Reach: 25 | | Class Cover | | | | Ground Cover Material | | | | | | |
|---------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|
| Transect Number: 1C | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete |
| Reading pe | Typha sp. | | | | | | | | | | | |
| 1 | | | | | 1 | | | | | 1 | | |
| 2 | | | | | 1 | | | | | 1 | | |
| 3 | | | | | 1 | | | | | 1 | | |
| 4 | | | | | 1 | | | | | 1 | | |
| 5 | | | | | 1 | | | | | 1 | | |
| 6 | | | | | 1 | | | | | 1 | | |
| 7 | | | | | 1 | | | | | 1 | | |
| 8 | | | | | 1 | | | | | 1 | | |
| 9 | | | | | 1 | | | | | 1 | | |
| 10 | | | | | 1 | | | | | 1 | | |
| 11 | 1 | 1 | | | | | | | | 1 | | |
| 12 | 1 | 1 | | | | | | | | 1 | | |
| 13 | 1 | 1 | | | | | | | | 1 | | |
| 14 | 1 | 1 | | | | | | | | 1 | | |
| 15 | 1 | 1 | | | | | | | | 1 | | |
| 16 | 1 | 1 | | | | | | | | 1 | | |
| 17 | 1 | 1 | | | | | | | | 1 | | |
| 18 | 1 | 1 | | | | | | | | 1 | | |
| 19 | 1 | 1 | | | | | | | | 1 | | |
| 20 | 1 | 1 | | | | | | | | 1 | | |
| 21 | 1 | 1 | | | | | | | | 1 | | |
| 22 | 1 | 1 | | | | | | | | 1 | | |
| 23 | | | | | 1 | | | | | 1 | | |
| 24 | | | | | 1 | | | | | 1 | | |
| 25 | | | | | 1 | | | | | 1 | | |
| 26 | | | | | 1 | | | | | 1 | | |
| 27 | | | | | 1 | | | | | 1 | | |
| 28 | | | | | 1 | | | | | 1 | | |
| 29 | | | | | 1 | | | | | 1 | | |
| 30 | | | | | 1 | | | | | 1 | | |
| 31 | | | | | 1 | | | | | 1 | | |
| 32 | | | | | 1 | | | | | 1 | | |
| 33 | | | | | 1 | | | | | 1 | | |
| 34 | | | | | 1 | | | | | 1 | | |
| 35 | | | | | 1 | | | | | 1 | | |
| 36 | | | | | 1 | | | | | 1 | | |
| 37 | | | | | 1 | | | | | 1 | | |
| 38 | | | | | 1 | | | | | 1 | | |

| Reach: 25 | | | | | | | | | | | | | | | |
|---------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 1C | | | | | | | | | | | | | | | |
| Reading pe | Typha sp. | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 39 | | | | | 1 | | | | | 1 | | | | | |
| 40 | | | | | 1 | | | | | 1 | | | | | |
| 41 | | | | | 1 | | | | | 1 | | | | | |
| 42 | | | | | 1 | | | | | 1 | | | | | |
| 43 | | | | | 1 | | | | | 1 | | | | | |
| 44 | | | | | 1 | | | | | 1 | | | | | |
| 45 | | | | | 1 | | | | | 1 | | | | | |
| 46 | | | | | 1 | | | | | 1 | | | | | |
| 47 | | | | | 1 | | | | | 1 | | | | | |
| 48 | | | | | 1 | | | | | 1 | | | | | |
| 49 | | | | | 1 | | | | | 1 | | | | | |
| 50 | | | | | 1 | | | | | 1 | | | | | |
| 51 | | | | | 1 | | | | | 1 | | | | | |
| 52 | | | | | 1 | | | | | 1 | | | | | |
| 53 | | | | | 1 | | | | | 1 | | | | | |
| 54 | | | | | 1 | | | | | 1 | | | | | |
| 55 | | | | | 1 | | | | | 1 | | | | | |
| 56 | | | | | 1 | | | | | 1 | | | | | |
| 57 | | | | | 1 | | | | | 1 | | | | | |
| 58 | | | | | 1 | | | | | 1 | | | | | |
| 59 | | | | | 1 | | | | | 1 | | | | | |
| 60 | | | | | 1 | | | | | 1 | | | | | |
| 61 | | | | | 1 | | | | | 1 | | | | | |
| 62 | | | | | 1 | | | | | 1 | | | | | |
| 63 | | | | | 1 | | | | | 1 | | | | | |
| 64 | | | | | 1 | | | | | 1 | | | | | |
| 65 | | | | | 1 | | | | | 1 | | | | | |
| 66 | | | | | 1 | | | | | 1 | | | | | |
| 67 | | | | | 1 | | | | | 1 | | | | | |
| 68 | | | | | 1 | | | | | 1 | | | | | |
| 69 | | | | | 1 | | | | | 1 | | | | | |
| 70 | | | | | 1 | | | | | 1 | | | | | |
| 71 | | | | | 1 | | | | | 1 | | | | | |
| 72 | | | | | 1 | | | | | 1 | | | | | |
| 73 | | | | | 1 | | | | | 1 | | | | | |
| 74 | | | | | 1 | | | | | 1 | | | | | |
| 75 | | | | | 1 | | | | | 1 | | | | | |
| 76 | | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|---------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 1C | | | | | | | | | | | | | | |
| | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading pe | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 77 | | | | | 1 | | | | | 1 | | | | |
| 78 | | | | | 1 | | | | | 1 | | | | |
| 79 | | | | | 1 | | | | | 1 | | | | |
| 80 | 1 | 1 | | | | | | | | | 1 | | | |
| 81 | 1 | 1 | | | | | | | | | 1 | | | |
| 82 | 1 | 1 | | | | | | | | | 1 | | | |
| 83 | 1 | 1 | | | | | | | | | 1 | | | |
| 84 | 1 | 1 | | | | | | | | | 1 | | | |
| 85 | 1 | 1 | | | | | | | | | 1 | | | |
| 86 | 1 | 1 | | | | | | | | | 1 | | | |
| 87 | 1 | 1 | | | | | | | | | 1 | | | |
| 88 | 1 | 1 | | | | | | | | | 1 | | | |
| 89 | 1 | 1 | | | | | | | | | 1 | | | |
| 90 | 1 | 1 | | | | | | | | | 1 | | | |
| 91 | 1 | 1 | | | | | | | | | 1 | | | |
| 92 | 1 | 1 | | | | | | | | | 1 | | | |
| 93 | 1 | 1 | | | | | | | | | 1 | | | |
| 94 | 1 | 1 | | | | | | | | | 1 | | | |
| 95 | 1 | 1 | | | | | | | | | 1 | | | |
| 96 | 1 | 1 | | | | | | | | | 1 | | | |
| 97 | 1 | 1 | | | | | | | | | 1 | | | |
| 98 | 1 | 1 | | | | | | | | | 1 | | | |
| 99 | 1 | 1 | | | | | | | | | 1 | | | |
| 100 | 1 | 1 | | | | | | | | | 1 | | | |
| 101 | 1 | 1 | | | | | | | | | 1 | | | |
| 102 | 1 | 1 | | | | | | | | | 1 | | | |
| 103 | 1 | 1 | | | | | | | | | 1 | | | |
| 104 | 1 | 1 | | | | | | | | | 1 | | | |
| 105 | 1 | 1 | | | | | | | | | 1 | | | |
| 106 | 1 | 1 | | | | | | | | | 1 | | | |
| 107 | 1 | 1 | | | | | | | | | 1 | | | |
| 108 | 1 | 1 | | | | | | | | | 1 | | | |
| 109 | 1 | 1 | | | | | | | | | 1 | | | |
| 110 | 1 | 1 | | | | | | | | | 1 | | | |
| 111 | 1 | 1 | | | | | | | | | 1 | | | |
| 112 | 1 | 1 | | | | | | | | | 1 | | | |
| 113 | 1 | 1 | | | | | | | | | 1 | | | |
| 114 | 1 | 1 | | | | | | | | | 1 | | | |

| Reach: 25 | | | | | | | | | | | | | | | |
|---------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 1C | | | | | | | | | | | | | | | |
| Reading pe | Typha sp. | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 115 | 1 | 1 | | | | | | | | | 1 | | | | |
| 116 | 1 | 1 | | | | | | | | | 1 | | | | |
| 117 | 1 | 1 | | | | | | | | | 1 | | | | |
| 118 | 1 | 1 | | | | | | | | | 1 | | | | |
| 119 | 1 | 1 | | | | | | | | | 1 | | | | |
| 120 | 1 | 1 | | | | | | | | | 1 | | | | |
| 121 | 1 | 1 | | | | | | | | | 1 | | | | |
| 122 | 1 | 1 | | | | | | | | | 1 | | | | |
| 123 | 1 | 1 | | | | | | | | | 1 | | | | |
| 124 | 1 | 1 | | | | | | | | | 1 | | | | |
| 125 | 1 | 1 | | | | | | | | | 1 | | | | |
| 126 | 1 | 1 | | | | | | | | | 1 | | | | |
| 127 | 1 | 1 | | | | | | | | | 1 | | | | |
| 128 | 1 | 1 | | | | | | | | | 1 | | | | |
| 129 | 1 | 1 | | | | | | | | | 1 | | | | |
| 130 | | | | | | 1 | | | | | 1 | | | | |
| 131 | | | | | | 1 | | | | | 1 | | | | |
| 132 | | | | | | 1 | | | | | 1 | | | | |
| 133 | | | | | | 1 | | | | | 1 | | | | |
| 134 | | | | | | 1 | | | | | 1 | | | | |
| 135 | | | | | | 1 | | | | | 1 | | | | |
| 136 | | | | | | 1 | | | | | 1 | | | | |
| 137 | | | | | | 1 | | | | | 1 | | | | |
| 138 | | | | | | 1 | | | | | 1 | | | | |
| 139 | | | | | | 1 | | | | | 1 | | | | |
| 140 | | | | | | 1 | | | | | 1 | | | | |
| 141 | | | | | | 1 | | | | | 1 | | | | |
| 142 | | | | | | 1 | | | | | 1 | | | | |
| 143 | | | | | | 1 | | | | | 1 | | | | |
| 144 | | | | | | 1 | | | | | 1 | | | | |
| 145 | | | | | | 1 | | | | | 1 | | | | |
| 146 | | | | | | 1 | | | | | 1 | | | | |
| 147 | | | | | | 1 | | | | | 1 | | | | |
| 148 | | | | | | 1 | | | | | 1 | | | | |
| 149 | | | | | | 1 | | | | | 1 | | | | |
| 150 | | | | | | 1 | | | | | 1 | | | | |
| 151 | | | | | | 1 | | | | | 1 | | | | |
| 152 | | | | | | 1 | | | | | 1 | | | | |

| Reach: 25 | | | | | | | | | | | | | | | |
|---------------------|-----------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 1C | | | | | | | | | | | | | | | |
| | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading pe | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| 153 | | | | | 1 | | | | | 1 | | | | | |
| 154 | | | | | 1 | | | | | 1 | | | | | |
| 155 | | | | | 1 | | | | | 1 | | | | | |
| 156 | | | | | 1 | | | | | 1 | | | | | |
| 157 | | | | | 1 | | | | | 1 | | | | | |
| 158 | | | | | 1 | | | | | 1 | | | | | |
| 159 | | | | | 1 | | | | | 1 | | | | | |
| 160 | | | | | 1 | | | | | 1 | | | | | |
| 161 | | | | | 1 | | | | | 1 | | | | | |
| 162 | | | | | 1 | | | | | 1 | | | | | |
| 163 | | | | | 1 | | | | | 1 | | | | | |
| 164 | | | | | 1 | | | | | 1 | | | | | |
| 165 | | | | | 1 | | | | | 1 | | | | | |
| 166 | | | | | 1 | | | | | 1 | | | | | |
| 167 | | | | | 1 | | | | | 1 | | | | | |
| 168 | | | | | 1 | | | | | 1 | | | | | |
| 169 | | | | | 1 | | | | | 1 | | | | | |
| 170 | | | | | 1 | | | | | 1 | | | | | |
| 171 | | | | | 1 | | | | | 1 | | | | | |
| 172 | | | | | 1 | | | | | 1 | | | | | |
| 173 | | | | | 1 | | | | | 1 | | | | | |
| 174 | | | | | 1 | | | | | 1 | | | | | |
| 175 | | | | | 1 | | | | | 1 | | | | | |
| 176 | | | | | 1 | | | | | 1 | | | | | |
| 177 | | | | | 1 | | | | | 1 | | | | | |
| 178 | | | | | 1 | | | | | 1 | | | | | |
| 179 | | | | | 1 | | | | | 1 | | | | | |
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| 182 | | | | | 1 | | | | | 1 | | | | | |
| 183 | | | | | 1 | | | | | 1 | | | | | |
| 184 | | | | | 1 | | | | | 1 | | | | | |
| 185 | | | | | 1 | | | | | 1 | | | | | |
| 186 | | | | | 1 | | | | | 1 | | | | | |
| 187 | | | | | 1 | | | | | 1 | | | | | |
| 188 | | | | | 1 | | | | | 1 | | | | | |
| 189 | | | | | 1 | | | | | 1 | | | | | |
| 190 | | | | | 1 | | | | | 1 | | | | | |

| Reach: 25 | | | | | | | | | | | | |
|---------------------|-----------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|
| Transect Number: 1C | | | | | | | | | | | | |
| | | Class Cover | | | | Ground Cover Material | | | | | | |
| Reading pe | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete |
| 191 | | | | | 1 | | | | | 1 | | |
| 192 | | | | | 1 | | | | | 1 | | |
| 193 | | | | | 1 | | | | | 1 | | |
| 194 | | | | | 1 | | | | | 1 | | |
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| 196 | | | | | 1 | | | | | 1 | | |
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| 200 | | | | | 1 | | | | | 1 | | |
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| Totals | 62 | 62 | 0 | 0 | 149 | 0 | 0 | 0 | 0 | 161 | 50 | 0 |
| | | Total Class Cover: | | | | | | | | | | |
| | | Native | | | 29.38389 | | | | | | | |
| | | non-native | | | 0 | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | |
| Transect Number: 2A - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | |
| | Class Cover | | | | | Ground Cover Material | | | | | | | | | | | |
| Reading per foot: | Native | Non-native | Both | No Plant | | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | ungrouted riprap | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | |
| Transect Number: 2A - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | |
| | | Class Cover | | | | | Ground Cover Material | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | ungROUTED riprap | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | | | |
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| | | Class Cover | | | | | Ground Cover Material | | | | | | | | | | | | |
| | | Native | Non-native | Both | No Plant | | metal pipe | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | concrete/asphalt | trash | ungROUTED riprap | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | | | |
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| Reading per foot: | | | | | | | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | |
| Transect Number: 2B - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | |
| | | Class Cover | | | | | Ground Cover Material | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | | metal pipe | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | concrete/asphalt | trash | ungROUTED riprap | |
| 191 | | | | | | | | | | | | | | | | | |
| 192 | | | | | | | | | | | | | | | | | |
| 193 | | | | | | | | | | | | | | | | | |
| 194 | | | | | | | | | | | | | | | | | |
| 195 | | | | | | | | | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Total Class Cover: | | | | | | | | | | | | | | | |
| | | Native | | | 0 | | | | | | | | | | | | |
| | | non-native | | | 0 | | | | | | | | | | | | |
| | | no vegetation | | | 0 | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | |
|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|
| Transect Number: 2C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | |
| Reading per foot: | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | |
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| Transect Number: 2C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| Reading per foot: | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | |
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| Transect Number: 2C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | |
| Reading per foot: | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | |
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| Transect Number: 2C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | | |
| Reading per foot: | | | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | |
|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 2C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| Reading per foot: | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | |
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| Transect Number: 2C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| Reading per foot: | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | |
| Transect Number: 2C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
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| 240 | | | | | | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Total Class Cover: | | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | | |
| | | non-native | | 0 | | | | | | | | | | |
| | | no vegetation | | 0 | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | | | | |
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| Transect Number: 3A - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | ungrouted riprap | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | | | | |
| Transect Number: 3A - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | ungrouted riprap | | | | | | | | |
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| | 55 | | | | | | | | | | | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | Total Class Cover: | | | | | | | | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | | | | | | | | |
| | | non-native | | 0 | | | | | | | | | | | | | | | | |
| | | no vegetation | | 0 | | | | | | | | | | | | | | | | |

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|--|-------------|-------------|---------------------|-------|------------|------|------------------|--|------|--|--|--|----------|
| Reach: 25 | | | | | | | | | | | | | |
| Transect Number: 3B - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | |
| Class Cover | | | | | | | | | | | | | |
| Reading per foot: | Native | | | | Non-native | | | | Both | | | | No Plant |
| | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | |
| Transect Number: 3B - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | |
| | | Class Cover | | | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungrouted riprap | | | | |
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| Reach: 25 | | | | | | | | | | | | | | |
| Transect Number: 3B - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | |
| Class Cover | | | | | | | | | | | | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| | | Native | Non-native | Both | No Plant | | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungrouted riprap | |
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| Reach: 25 | | | | | | | | | | | | | |
| Transect Number: 3B - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | |
| Reading per foot: | Class Cover | | | | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungrouted riprap | | |
| | Native | Non-native | Both | No Plant | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | |
| Transect Number: 3B - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | |
| | | Class Cover | | | | | | | | | | | | | | |
| | | Native | Non-native | Both | No Plant | | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungrouted riprap | | | |
| Reading per foot: | | | | | | | | | | | | | | | | |
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| Totals | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | Total Class Cover: | | | | | | | | | | | | | | |
| | | Native | | | 0 | | | | | | | | | | | |
| | | non-native | | | 0 | | | | | | | | | | | |
| | | no vegetation | | | 0 | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | | | |
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| Transect Number: 3C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | |
|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 3C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| Reading per foot: | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | |
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| Transect Number: 3C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| Reading per foot: | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | |
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| Transect Number: 3C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
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| 152 | | | | | | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | | |
|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|
| Transect Number: 3C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| Reading per foot: | | | | | | | | | | | | | |
| 153 | | | | | | | | | | | | | |
| 154 | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | |
|--|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 3C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
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| Reach: 25 | | | | | | | | | | | | | | | |
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| Transect Number: 3C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | |
| Reading per foot: | Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
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| Reach: 25 | | | | | | | | | | | | | | |
|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 3C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
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|--|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|
| Reach: 25 | | | | | | | | | | | | | | |
| Transect Number: 3C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| 305 | | | | | | | | | | | | | | |
| 306 | | | | | | | | | | | | | | |
| 307 | | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | | |
| Transect Number: 3C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | |
| | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | | | | |
| Reading per foot: | | | | | | | | | | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | |
| | | Total Class Cover: | | | | | | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | | | | | | |
| | | non-native | | 0 | | | | | | | | | | | | | | |
| | | no vegetation | | 0 | | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | | | | | |
|--|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------------------|--|--|--|--|--|--|--|--|--|
| Transect Number: 4A - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | ungrouted riprap | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | |
|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------------------|---|---|
| Transect Number: 4A - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | ungrouted riprap | | |
| Reading per foot: | | | | | | | | | | | | | |
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| 74 | | | | | | | | | | | | | |
| 75 | | | | | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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|--|--|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------------------|--|--|
| Reach: 25 | | | | | | | | | | | | | | |
| Transect Number: 4A - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | ungrouted riprap | | |
| | | | | | | | | | | | | | | |
| | | Total Class Cover: | | | | | | | | | | | | |
| | | Native | | 0 | | | | | | | | | | |
| | | non-native | | 0 | | | | | | | | | | |
| | | no vegetation | | 0 | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | | | |
| Transect Number: 4B - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | |
| Class Cover | | | | | Ground Cover Material | | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | | | |
| Transect Number: 4B - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | |
| | | Class Cover | | | | | Ground Cover Material | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | Native | Non-native | Both | No Plant | | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap | | | | | |
| Reading per foot: | | | | | | | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | |
| Transect Number: 4B - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | |
| | | Class Cover | | | | | Ground Cover Material | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | ungROUTED riprap | | | |
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| Totals | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | Total Class Cover: | | | | | | | | | | | | | | | |
| | | Native | | | 0 | | | | | | | | | | | | |
| | | non-native | | | 0 | | | | | | | | | | | | |
| | | no vegetation | | | 0 | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | |
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| Transect Number: 4C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | |
| Reading per foot: | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | |
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| Transect Number: 4C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | | | |
| Transect Number: 4C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | | | | | | |
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| Transect Number: 4C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | | | | | |
| Reading per foot: | | | | | | | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | |
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| Transect Number: 4C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
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| Reach: 25 | | | | | | | | | | | | | | |
| Transect Number: 4C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
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| Reach: 25 | | | | | | | | | | | | | |
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| Transect Number: 4C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | |
| Reading per foot: | | | | | | | | | | | | | |
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| 232 | | | | | | | | | | | | | |
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| 234 | | | | | | | | | | | | | |
| 235 | | | | | | | | | | | | | |
| 236 | | | | | | | | | | | | | |
| 237 | | | | | | | | | | | | | |
| 238 | | | | | | | | | | | | | |
| 239 | | | | | | | | | | | | | |
| 240 | | | | | | | | | | | | | |
| 241 | | | | | | | | | | | | | |
| 242 | | | | | | | | | | | | | |
| 243 | | | | | | | | | | | | | |
| 244 | | | | | | | | | | | | | |
| 245 | | | | | | | | | | | | | |
| 246 | | | | | | | | | | | | | |
| 247 | | | | | | | | | | | | | |
| 248 | | | | | | | | | | | | | |
| 249 | | | | | | | | | | | | | |
| 250 | | | | | | | | | | | | | |
| 251 | | | | | | | | | | | | | |
| 252 | | | | | | | | | | | | | |
| 253 | | | | | | | | | | | | | |
| 254 | | | | | | | | | | | | | |
| 255 | | | | | | | | | | | | | |
| 256 | | | | | | | | | | | | | |
| 257 | | | | | | | | | | | | | |
| 258 | | | | | | | | | | | | | |
| 259 | | | | | | | | | | | | | |
| 260 | | | | | | | | | | | | | |
| 261 | | | | | | | | | | | | | |
| 262 | | | | | | | | | | | | | |
| 263 | | | | | | | | | | | | | |
| 264 | | | | | | | | | | | | | |
| 265 | | | | | | | | | | | | | |
| 266 | | | | | | | | | | | | | |

| Reach: 25 | | | | | | | | | | | | | | |
|--|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|
| Transect Number: 4C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | |
| Vegetation species | Class Cover | | | | Ground Cover Material | | | | | | | | | |
| | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | |
| Reading per foot: | | | | | | | | | | | | | | |
| 267 | | | | | | | | | | | | | | |
| 268 | | | | | | | | | | | | | | |
| 269 | | | | | | | | | | | | | | |
| 270 | | | | | | | | | | | | | | |
| 271 | | | | | | | | | | | | | | |
| 272 | | | | | | | | | | | | | | |
| 273 | | | | | | | | | | | | | | |
| 274 | | | | | | | | | | | | | | |
| 275 | | | | | | | | | | | | | | |
| 276 | | | | | | | | | | | | | | |
| 277 | | | | | | | | | | | | | | |
| 278 | | | | | | | | | | | | | | |
| 279 | | | | | | | | | | | | | | |
| 280 | | | | | | | | | | | | | | |
| 281 | | | | | | | | | | | | | | |
| 282 | | | | | | | | | | | | | | |
| 283 | | | | | | | | | | | | | | |
| 284 | | | | | | | | | | | | | | |
| 285 | | | | | | | | | | | | | | |
| 286 | | | | | | | | | | | | | | |
| 287 | | | | | | | | | | | | | | |
| 288 | | | | | | | | | | | | | | |
| 289 | | | | | | | | | | | | | | |
| 290 | | | | | | | | | | | | | | |
| 291 | | | | | | | | | | | | | | |
| 292 | | | | | | | | | | | | | | |
| 293 | | | | | | | | | | | | | | |
| 294 | | | | | | | | | | | | | | |
| 295 | | | | | | | | | | | | | | |
| 296 | | | | | | | | | | | | | | |
| 297 | | | | | | | | | | | | | | |
| 298 | | | | | | | | | | | | | | |
| 299 | | | | | | | | | | | | | | |
| 300 | | | | | | | | | | | | | | |
| 301 | | | | | | | | | | | | | | |
| 302 | | | | | | | | | | | | | | |
| 303 | | | | | | | | | | | | | | |
| 304 | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | |
|--|--|---------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|--|--|--|--|--|--|--|
| Reach: 25 | | | | | | | | | | | | | | | | | | | |
| Transect Number: 4C - not sampled during post clearance surveys because the area had not been cleared. | | | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete | | | | | | | |
| | | no vegetation | | | 0 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

| Reach: 96 | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|--------------|-----------------------|----------------|-----------------------|---------------|-------------|---------------|------------------|---------------|-----------------|-------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|-----|------|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Arundo donax | Baccharis salicifolia | Brassica nigra | Carduus pycnocephalus | Claytonia sp. | Cyperus sp. | Melilotus sp. | non-native grass | Rubus ursinus | Salix laevigata | Vinca sp. | Native | Non-native | Both | No plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand |
| 1 | | | | | 1 | | | | | 1 | | 1 | | | | | | 1 | | | | |
| 2 | | | 1 | | | | | | | 1 | | | | 1 | | | | 1 | | | | |
| 3 | | | | 1 | | | | | | | | | 1 | | | | | 1 | | | | |
| 4 | | | 1 | | | | | 1 | | | | | 1 | | | | | 1 | | | | |
| 5 | | 1 | | 1 | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 6 | | | 1 | 1 | | | | 1 | | | | | 1 | | | | | 1 | | | | |
| 7 | | | 1 | 1 | | | | | | | | | 1 | | | | | 1 | | | | |
| 8 | | | | | | | | | | | | | | | 1 | | | | | | | 1 |
| 9 | | | | | | | | | | | | | | | 1 | | | | | | | 1 |
| 10 | | | 1 | | | | | | | | | | 1 | | | | | | | | | 1 |
| 11 | | | | | | | | | | | | | | | 1 | | | | | | | 1 |
| 12 | | | 1 | | | | | | | | | | 1 | | | | | | | | | 1 |
| 13 | | | | | | | 1 | | | | | | 1 | | | | | | | | | 1 |
| 14 | | | 1 | | | | | | | | | | 1 | | | | | | | | | 1 |
| 15 | | | | | 1 | | | | | | | 1 | | | | | | | | | | 1 |
| 16 | | | | | | | | | | | | | | | 1 | | | | | | | 1 |
| 17 | | | 1 | | | | | | | | | | 1 | | | | | 1 | | | | |
| 18 | | | | | | | | | | | | | | | 1 | | | | | | | |
| 19 | | | | | | | | | | | | | | | 1 | | | | | | | |
| 20 | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | |
| 21 | 1 | | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 22 | | | | | 1 | | | | 1 | | | 1 | | | | | | 1 | | | | |
| 23 | | | | | 1 | | | | | | | 1 | | | | | | 1 | | | | |
| 24 | 1 | | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 25 | 1 | | | | 1 | | | | | | | | | 1 | | | | 1 | | | | |
| 26 | | | | | | | | | | | | | | | 1 | | | | | | 1 | |
| 27 | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 28 | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 29 | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 30 | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 31 | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 32 | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 33 | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 34 | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 35 | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 36 | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 37 | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 38 | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 39 | | | | | | | | | | 1 | | 1 | | | | | | | | | 1 | |
| 40 | | | | | | | | 1 | | 1 | | | | 1 | | | | 1 | | | | |
| 41 | | | | | | | | 1 | | 1 | | | | 1 | | | | 1 | | | | |
| 42 | | | | | | | | 1 | | 1 | | | | 1 | | | | 1 | | | | |
| 43 | | | | | | | | 1 | | 1 | | | | 1 | | | | 1 | | | | |
| 44 | | | | | | | | 1 | | 1 | | | | 1 | | | | 1 | | | | |
| 45 | | | | | | | | 1 | | 1 | | | | 1 | | | | 1 | | | | |
| 46 | | | | | | | | 1 | | 1 | | | | 1 | | | | 1 | | | | |
| 47 | | | | | | 1 | | | | 1 | | | | 1 | | | | 1 | | | | |
| 48 | | | | | | 1 | | | | 1 | | | | 1 | | | | 1 | | | | |
| 49 | | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | 1 |
| 50 | | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | 1 |

| Reach: 96 | | | | | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|--------------|-----------------------|----------------|-----------------------|---------------|-------------|---------------|------------------|---------------|-----------------|-----------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|------|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Reading pe | Arundo donax | Baccharis salicifolia | Brassica nigra | Carduus pycnocephalus | Claytonia sp. | Cyperus sp. | Melilotus sp. | non-native grass | Rubus ursinus | Salix laevigata | Vinca sp. | Native | Non-native | Both | No plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | sand | |
| 51 | | | | | | | | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| 52 | | | | | | | | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| 53 | | | | | | | | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| 54 | | | | | | | | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| 55 | | | | | | | | | | 1 | 1 | | | 1 | | | | 1 | | | | | |
| Totals | 3 | 1 | 8 | 4 | 9 | 2 | 1 | 9 | 1 | 31 | 7 | 18 | 9 | 21 | 7 | 0 | 2 | 30 | 0 | 14 | 0 | 9 | |
| | | | | | | | | | | | | Total Class Cover: | | | | | | | | | | | |
| | | | | | | | | | | | | Native | | | | 70.90909 | | | | | | | |
| | | | | | | | | | | | | non-native | | | | 54.54545 | | | | | | | |
| | | | | | | | | | | | | no vegetation | | | | 12.72727 | | | | | | | |

| Reach: 96 | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | | |
|--------------------|----------------|-----------------------|---------------|--------------------|---------------|------------------|-------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|-----|----------------|------|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | |
| Reading pe | Brassica nigra | Carduus pycnocephalus | Claytonia sp. | non-native grasses | Rubus ursinus | Salix lasiolepis | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | sand |
| 1 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 2 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 3 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 4 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 5 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 6 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 7 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 8 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 9 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 10 | 1 | 1 | | | | | | | 1 | | | | | 1 | | | | | |
| 11 | 1 | | 1 | 1 | | | | | | | 1 | | | 1 | | | | | |
| 12 | 1 | | | 1 | | | | | | | 1 | | | 1 | | | | | |
| 13 | | | | 1 | | | | | | | 1 | | | 1 | | | | | |
| 14 | | | | 1 | | | | | | | 1 | | | 1 | | | | | |
| 15 | | | | 1 | | | | | | | 1 | | | 1 | | | | | |
| 16 | | | | 1 | | | | | | | 1 | | | 1 | | | | | |
| 17 | | | | 1 | | | | | | | 1 | | | 1 | | | | | |
| 18 | | | | 1 | | | | | | | 1 | | | 1 | | | | | |
| 19 | | | | 1 | | | | | | | 1 | | | 1 | | | | | |
| 20 | | | | 1 | | | | | | | 1 | | | 1 | | | | | |
| 21 | | | | | | | | | | | 1 | | 1 | | | | | | |
| 22 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 23 | | | 1 | | | | | 1 | | | | | | 1 | | | | | |
| 24 | | | | | | | | | | | 1 | | 1 | | | | | | |
| 25 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 26 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 27 | | | 1 | | | | | 1 | | | | | | 1 | | | | | |
| 28 | | | 1 | 1 | | | | | | | 1 | | 1 | | | | | | |
| 29 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 30 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 31 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 32 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 33 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 34 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 35 | | | 1 | | | | | 1 | | | | | | | | | | | 1 |
| 36 | | | 1 | | | | | 1 | | | | | | | | | | | 1 |
| 37 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 38 | | | 1 | | | | | 1 | | | | | | 1 | | | | | |
| 39 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 40 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 41 | | | | | | | | | | | 1 | | | | | 1 | | | |

| Reach: 96 | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
|--------------------|----------------|-----------------------|---------------|--------------------|---------------|------------------|-----------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------------|------|
| Transect Number: 2 | | | | | | | | | | | | | | | | | | | |
| Reading pe | Brassica nigra | Carduus pycnocephalus | Claytonia sp. | non-native grasses | Rubus ursinus | Salix lasiolepis | Typha sp. | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | grouted riprap | sand |
| 42 | | | | | | | 1 | 1 | | | | | | | | 1 | | | |
| 43 | | | | | | | | | | | 1 | | | | | 1 | | | |
| 44 | | | | | | | | | | | 1 | | | | | | | 1 | |
| 45 | 1 | | | 1 | | | | | 1 | | | | | | | | | 1 | |
| 46 | | | | | | 1 | | 1 | | | | | | 1 | | | | | |
| 47 | | | | | | 1 | | 1 | | | | | | 1 | | | | | |
| 48 | | | | | | | | | | | 1 | | | 1 | | | | | |
| 49 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 50 | | | | | 1 | | | 1 | | | | | | 1 | | | | | |
| 51 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 52 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 53 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 54 | | | | | | | | | | | 1 | | | | | | | | 1 |
| 55 | | | | | | | | | | | 1 | | | | | | | | 1 |
| Totals | 4 | 1 | 7 | 12 | 1 | 2 | 1 | 9 | 11 | 2 | 33 | 0 | 3 | 26 | 0 | 9 | 2 | 11 | 4 |
| | | | | | | | | Total Class Cover: | | | | | | | | | | | |
| | | | | | | | | Native | | | | 20 | | | | | | | |
| | | | | | | | | non-native | | | | 23.63636 | | | | | | | |
| | | | | | | | | no vegetation | | | | 60 | | | | | | | |

| Reach: 99 | | | | | | | | | | | | | | | | | |
|--------------------|----------|--------------------|------------|----------|-----------|-----------------------|-------------|-------------|---------------------|----------|----------|----------|----------|--|--|--|--|
| Transect Number: 1 | | | | | | | | | | | | | | | | | |
| Vegetation species | | Class Cover | | | | Ground Cover Material | | | | | | | | | | | |
| Reading per foot: | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | sand | concrete | mud | | | | |
| 1 | | | | | 1 | | | 1 | | | | | | | | | |
| 2 | | | | | 1 | | | 1 | | | | | | | | | |
| 3 | | | | | 1 | | | 1 | | | | | | | | | |
| 4 | | | | | 1 | | | 1 | | | | | | | | | |
| 5 | | | | | 1 | | | | | | | | 1 | | | | |
| 6 | | | | | 1 | | | | | | | | 1 | | | | |
| 7 | | | | | 1 | | | | | | | | 1 | | | | |
| 8 | | | | | 1 | | | 1 | | | | | | | | | |
| 9 | | | | | 1 | | | 1 | | | | | | | | | |
| 10 | | | | | 1 | | | 1 | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 3 | | | | |
| | | Total Class Cover: | | | | | | | | | | | | | | | |
| | | Native | | | 0 | | | | | | | | | | | | |
| | | non-native | | | 0 | | | | | | | | | | | | |
| | | no vegetation | | | 100 | | | | | | | | | | | | |

| Vegetation species | | | | | | | | Class Cover | | | | Ground Cover Material | | | | | |
|--------------------|--------------|------------------|------------------------------|-----------------|------------------|-------------|--------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|
| Reading pe | Arundo donax | non-native grass | Rorippa nasturtium-aquaticum | Rumex maritimus | Silybum marianum | Sonchus sp. | Urtica urens | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud |
| 1 | | | | | | | | | | | 1 | | | | | | 1 |
| 2 | | | | | | | 1 | | 1 | | | | | | | | 1 |
| 3 | | | | | | | | | | | 1 | | | | | | 1 |
| 4 | | | | | | | | | | | 1 | | | | | | 1 |
| 5 | | | | | | | | | | | 1 | | | | | | 1 |
| 6 | 1 | | | | 1 | 1 | | | 1 | | | | | | | | 1 |
| 7 | 1 | | | | | | | | 1 | | | | | 1 | | | |
| 8 | 1 | | 1 | 1 | | | | | 1 | | | | | | | | 1 |
| 9 | 1 | | 1 | | | 1 | | | 1 | | | | | | | | 1 |
| 10 | 1 | | | 1 | | | | | 1 | | | | | | | | 1 |
| 11 | | | | | | | | | | | 1 | | | | | 1 | |
| 12 | | | | 1 | | | | | 1 | | | | | | | | 1 |
| 13 | | | | 1 | | | | | 1 | | | | | | | | 1 |
| 14 | | 1 | | | | | | | 1 | | | | | 1 | | | |
| 15 | | | | | 1 | | | | 1 | | | | | 1 | | | |
| 16 | | | | | 1 | | | | 1 | | | | | | | | 1 |
| 17 | | 1 | | | | | | | 1 | | | | | | | | 1 |
| 18 | | 1 | | | | | | | 1 | | | | | 1 | | | |
| 19 | | 1 | | | | | | | 1 | | | | | 1 | | | |
| 20 | | 1 | | | | | | | 1 | | | | | 1 | | | |
| Totals | 5 | 5 | 2 | 4 | 3 | 2 | 1 | 0 | 15 | 0 | 5 | 0 | 0 | 6 | 0 | 1 | 13 |
| Total Class Cover: | | | | | | | | | | | | | | | | | |
| Native | | | | | | | | | | | 0 | | | | | | |
| non-native | | | | | | | | | | | 75 | | | | | | |
| no vegetation | | | | | | | | | | | 25 | | | | | | |

| Reach: 99 | | Class Cover | | | | Ground Cover Material | | | | | | |
|--------------------|------------------------------|--------------------|------------|----------|----------|-----------------------|-------------|-------------|---------------------|----------|----------|----------|
| Transect Number: 3 | | | | | | | | | | | | |
| Reading pe | Rorippa nasturtium-aquaticum | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete |
| 1 | 1 | | 1 | | | | | 1 | | | | |
| 2 | | | | | 1 | | | 1 | | | | |
| 3 | | | | | 1 | | 1 | | | | | |
| 4 | | | | | 1 | | | 1 | | | | |
| 5 | | | | | 1 | | | 1 | | | | |
| 6 | | | | | 1 | | | | 1 | | | |
| 7 | | | | | 1 | | | | | 1 | | |
| 8 | | | | | 1 | | | 1 | | | | |
| 9 | | | | | 1 | | | | | 1 | | |
| 10 | | | | | 1 | | | 1 | | | | |
| Totals | 1 | 0 | 1 | 0 | 9 | 0 | 1 | 6 | 0 | 1 | 2 | 0 |
| | | Total Class Cover: | | | | | | | | | | |
| | | Native | | | 0 | | | | | | | |
| | | non-native | | | 10 | | | | | | | |
| | | no vegetation | | | 90 | | | | | | | |

| Reach: 100 | | Class Cover | | | | Ground Cover Material | | | | | | |
|--------------------|--------------|-------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|
| Transect Number: 1 | | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete |
| Reading pe | Hedera helix | | | | | | | | | | | |
| 1 | | | | | 1 | | | 1 | | | | |
| 2 | | | | | 1 | | | 1 | | | | |
| 3 | | | | | 1 | | | 1 | | | | |
| 4 | | | | | 1 | | | 1 | | | | |
| 5 | | | | | 1 | | | 1 | | | | |
| 6 | | | | | 1 | | | 1 | | | | |
| 7 | | | | | 1 | | | 1 | | | | |
| 8 | | | | | 1 | | | 1 | | | | |
| 9 | | | | | 1 | | | 1 | | | | |
| 10 | | | | | 1 | | | 1 | | | | |
| 11 | | | | | 1 | | | 1 | | | | |
| 12 | | | | | 1 | | | 1 | | | | |
| 13 | | | | | 1 | | | 1 | | | | |
| 14 | | | | | 1 | | | 1 | | | | |
| 15 | | | | | 1 | | | | | 1 | | |
| 16 | | | | | 1 | | 1 | | | | | |
| 17 | | | | | 1 | | | | | 1 | | |
| 18 | | | | | 1 | | | | | 1 | | |
| 19 | | | | | 1 | | | | | 1 | | |
| 20 | | | | | 1 | | | | | 1 | | |
| 21 | | | | | 1 | | | | | 1 | | |
| 22 | | | | | 1 | | | | | 1 | | |
| 23 | | | | | 1 | | | | | 1 | | |
| 24 | | | | | 1 | | | | | 1 | | |
| 25 | | | | | 1 | | | 1 | | | | |
| 26 | | | | | 1 | | | 1 | | | | |
| 27 | | | | | 1 | | | 1 | | | | |
| 28 | | | | | 1 | | | 1 | | | | |
| 29 | | | | | 1 | | 1 | | | | | |
| 30 | | | | | 1 | | 1 | | | | | |
| 31 | | | | | 1 | | | 1 | | | | |
| 32 | | | | | 1 | | 1 | | | | | |
| 33 | | | | | 1 | | | 1 | | | | |
| 34 | | | | | 1 | | | 1 | | | | |
| 35 | | | | | 1 | | | 1 | | | | |
| 36 | 1 | | 1 | | | | | 1 | | | | |
| 37 | | | | | 1 | | | 1 | | | | |
| 38 | 1 | | 1 | | | | | 1 | | | | |

| Reach: | | | | | | | | | | | | | | | | | | |
|------------------|-----------------------|---------------------|----------------|--------------------|------------------|---------------|------------------------------|--------|------------|------|-----------------------|------|-------------|-------------|---------------------|-------|-----|----------|
| Transect Number: | | | | | | | | | | | | | | | | | | |
| Reading pe | Vegetation species | | | | | | Class Cover | | | | Ground Cover Material | | | | | | | |
| | Carduus pycnocephalus | Hirschfeldia incana | Melilotus alba | Mimulus cardinalis | non-native grass | Polygonum sp. | Rorippa nasturtium-aquaticum | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete |
| 1 | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | |
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| 32 | | | | | | | | | | | | | | | | | | |
| 33 | | | | | | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | | |
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| 37 | | | | | | | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | | | | | | |

| Reach: | | | | | | | | | | | | | | | | | | |
|------------------|-----------------------|---------------------|----------------|--------------------|------------------|---------------|------------------------------|--------------------|------------|------|----------|-----------------------|-------------|-------------|---------------------|-------|-----|----------|
| Transect Number: | | | | | | | | | | | | | | | | | | |
| | Vegetation species | | | | | | | Class Cover | | | | Ground Cover Material | | | | | | |
| Reading pe | Carduus pycnocephalus | Hirschfeldia incana | Melilotus alba | Mimulus cardinalis | non-native grass | Polygonum sp. | Rorippa nasturtium-aquaticum | Native | Non-native | Both | No Plant | Bare | Rock/Cobble | Leaf Litter | Coarse woody debris | water | mud | concrete |
| 40 | | | | | | | | | | | | | | | | | | |
| 41 | | | | | | | | | | | | | | | | | | |
| 42 | | | | | | | | | | | | | | | | | | |
| 43 | | | | | | | | | | | | | | | | | | |
| 44 | | | | | | | | | | | | | | | | | | |
| 45 | | | | | | | | | | | | | | | | | | |
| Totals | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | Total Class Cover: | | | | | | | | | | |
| | | | | | | | | Native | | | | 0 | | | | | | |
| | | | | | | | | non-native | | | | 0 | | | | | | |
| | | | | | | | | no vegetation | | | | 0 | | | | | | |

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RAW CRAM SCORES

| Site Number (SBC Reach No.) | 39 | 40 | | | | | | | | 41 | 42 | 43a | 43b | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Assessment Area No. | 39-1 | 40-1 | 40-2 | 40-3 | 40a-avg | 40-4 | 40-5 | 40-6 | 40b-avg | 41-1 | 42-1 | 43-1 | 43-2 | 43-avg |
| Wetland Class | riverine | riverine | riverine | riverine | riverine | riverine | riverine | riverine | riverine | riverine | riverine | riverine | riverine | riverine |
| Wetland Subclass (confined or non-confined) | non-conf | confined | confined | confined | | non-conf | non-conf | non-conf | | non-conf | confined | confined | confined | |

| Attribute | Metric | | | | | | | | | | | | | | |
|-------------------------------------|------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Buffer and Landscape Context | Aquatic Area Abundance | 3 | 3 | 9 | 12 | 8.0 | 12 | 12 | 12 | 12.0 | 12 | 3 | 3 | 12 | 7.5 |
| | Buffer Condition (BC) | | | | | | | | | | | | | | |
| | BC: % of AA with Buffer | 12 | 3 | 12 | 12 | 9.0 | 12 | 12 | 12 | 12.0 | 12 | 3 | 12 | 12 | 12 |
| | BC: Average Buffer Width | 9 | 3 | 3 | 3 | 3.0 | 3 | 3 | 3 | 3.0 | 3 | 3 | 6 | 3 | 4.5 |
| | BC: Buffer Condition | 6 | 6 | 6 | 6 | 6.0 | 6 | 6 | 6 | 6.0 | 3 | 3 | 6 | 9 | 7.5 |
| | Final Attribute Score | 45.40 | 30.18 | 62.50 | 75.00 | 56.60 | 75.00 | 75.00 | 75.00 | 75.00 | 67.68 | 25.00 | 42.23 | 80.62 | 62.18 |
| Hydrology | Water Source | 6 | 6 | 6 | 6 | 6.0 | 6 | 6 | 6 | 6.0 | 6 | 6 | 6 | 6 | 6 |
| | Channel Stability | 3 | 3 | 9 | 9 | 7.0 | 9 | 9 | 9 | 9.0 | 9 | 3 | 12 | 12 | 12 |
| | Hydrologic Connectivity | 3 | 6 | 12 | 12 | 10.0 | 12 | 3 | 12 | 9.0 | 3 | 3 | 9 | 12 | 10.5 |
| | Final Attribute Score | 33.33 | 41.67 | 75.00 | 75.00 | 63.89 | 75.00 | 50.00 | 75.00 | 66.67 | 50.00 | 33.33 | 75.00 | 83.33 | 79.17 |
| Physical Structure | Structural Patch Richness | 3 | 6 | 6 | 6 | 6.0 | 3 | 3 | 3 | 3.0 | 3 | 3 | 3 | 3 | 3 |
| | Topographic Complexity | 3 | 6 | 6 | 6 | 6.0 | 6 | 6 | 9 | 7.0 | 9 | 3 | 6 | 6 | 6 |
| | Final Attribute Score | 25.00 | 50.00 | 50.00 | 50.00 | 50.00 | 37.50 | 37.50 | 50.00 | 41.67 | 50.00 | 25.00 | 37.50 | 37.50 | 37.50 |
| Biotic Structure | Plant Community (PC) | 9.00 | 5.00 | 6.00 | 8.00 | 6.3 | 7.00 | 10.00 | 8.00 | 8.3 | 10.00 | 7.00 | 8.00 | 9.00 | 8.50 |
| | PC: No. of plant layers | 12 | 6 | 9 | 9 | 8.0 | 9 | 12 | 9 | 10.0 | 12 | 6 | 9 | 12 | 10.5 |
| | PC: No. of co-dominants | 6 | 3 | 3 | 6 | 4.0 | 3 | 6 | 6 | 5.0 | 6 | 3 | 6 | 6 | 6 |
| | PC: Percent Invasion | 9 | 6 | 6 | 9 | 7.0 | 9 | 12 | 9 | 10.0 | 12 | 12 | 9 | 9 | 9 |
| | Interspersion | 6 | 3 | 6 | 6 | 5.0 | 6 | 9 | 9 | 8.0 | 3 | 3 | 6 | 3 | 4.5 |
| | Vertical Biotic Structure | 3 | 6 | 3 | 3 | 4.0 | 3 | 6 | 9 | 6.0 | 6 | 3 | 9 | 3 | 6 |
| | Final Attribute Score | 50.00 | 38.89 | 41.67 | 47.22 | 42.59 | 44.44 | 69.44 | 72.22 | 62.04 | 52.78 | 36.11 | 63.89 | 41.67 | 52.78 |
| Overall AA Score | 38.4 | 40.2 | 57.3 | 61.8 | 53.3 | 58.0 | 58.0 | 68.1 | 61.3 | 55.1 | 29.9 | 54.7 | 60.8 | 57.9 | |

| | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| Site Number (SBC Reach No.) | 44 | | | | 98 | |
| Assessment Area No. | 44-1 | 44-2 | 44-3 | 44-4 | 44-avg | 98-1 |
| Wetland Class | riverine | riverine | riverine | riverine | riverine | riverine |
| Wetland Subclass (confined or non-confined) | confined | confined | confined | confined | | confined |

| Attribute | Metric | | | | | | |
|-------------------------------------|------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Buffer and Landscape Context | Aquatic Area Abundance | 12 | 12 | 12 | 9 | 11.25 | 3 |
| | Buffer Condition (BC) | | | | | | |
| | BC: % of AA with Buffer | 12 | 12 | 12 | 12 | 12 | 6 |
| | BC: Average Buffer Width | 3 | 3 | 3 | 3 | 3 | 3 |
| | BC: Buffer Condition | 9 | 6 | 6 | 6 | 6.75 | 3 |
| | Final Attribute Score | 80.62 | 75.00 | 75.00 | 62.50 | 73.39 | 27.37 |
| Hydrology | Water Source | 6 | 6 | 6 | 6 | 6 | 6 |
| | Channel Stability | 12 | 9 | 9 | 9 | 9.75 | 12 |
| | Hydrologic Connectivity | 12 | 9 | 12 | 6 | 9.75 | 3 |
| | Final Attribute Score | 83.33 | 66.67 | 75.00 | 58.33 | 70.83 | 58.33 |
| Physical Structure | Structural Patch Richness | 3 | 3 | 3 | 3 | 3 | 3 |
| | Topographic Complexity | 6 | 6 | 6 | 6 | 6 | 6 |
| | Final Attribute Score | 37.50 | 37.50 | 37.50 | 37.50 | 37.50 | 37.50 |
| Biotic Structure | Plant Community (PC) | 10.00 | 8.00 | 8.00 | 10.00 | 9.00 | 8.00 |
| | PC: No. of plant layers | 12 | 9 | 9 | 12 | 10.5 | 9 |
| | PC: No. of co-dominants | 6 | 3 | 6 | 6 | 5.25 | 6 |
| | PC: Percent Invasion | 12 | 12 | 9 | 12 | 11.25 | 9 |
| | Interspersion | 6 | 3 | 3 | 3 | 3.75 | 3 |
| | Vertical Biotic Structure | 6 | 3 | 3 | 3 | 3.75 | 9 |
| | Final Attribute Score | 61.11 | 38.89 | 38.89 | 44.44 | 45.83 | 55.56 |
| Overall AA Score | | 65.6 | 54.5 | 56.6 | 50.7 | 56.9 | 44.7 |

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Biological Technical Assessment

San Gabriel River Watershed Feasibility Study

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February 2015



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1.0 INTRODUCTION

This Biological Technical Assessment Report (Report) has been prepared to satisfy requirements of Waste Discharge Requirement Order No. R4-2010-0021 (WDR) adopted by the California Regional Water Quality Control Board (RWQCB), Los Angeles Region, on February 4, 2010, for the Soft-Bottom Flood Control Channels Project maintained by the Los Angeles County Flood Control District (LACFCD). The WDR requires that a Feasibility Study be conducted for all watersheds containing soft-bottom channel (SBC) reaches that are maintained by the LACFCD. As required by the WDR, the first Feasibility Study was conducted for the 24 SBC reaches in the Los Angeles River Watershed. The San Gabriel Watershed was selected for the second Feasibility Study. The nine SBC reaches in the San Gabriel River Watershed are listed and described below in Table 1.

As stated in the WDR (Condition 45), the purpose of the Feasibility Study is to provide an “on-going assessment of channel conditions and hydraulic capacity” in order to “determine where a potential may exist for native vegetation to remain within the soft-bottom portion of the channel or if additional hydraulic capacity is needed”. As required by the WDR (Condition 48), a Work Plan was prepared and submitted (dated June 2013) to the RWQCB that provided proposed study methods for the Feasibility Study, including an “assessment of biological functions and values of these reaches” so that “comparisons of habitat type, maturity and extent of native or invasive plants can be made between reaches”. The WDR (Condition 50) requires that the LACFCD “include an assessment of the biological function and values for each reach”.

This Report assesses the biological function and values for each SBC reach, as required by the WDR (Condition 50). The results of this assessment are incorporated into the final recommendations identifying which SBC reaches can sustain additional vegetation and/or replacement of non-native with native vegetation, without affecting the reaches’ hydraulic capacity.

**TABLE 1
BIOLOGICAL TECHNICAL ASSESSMENT REPORT
NINE SOFT-BOTTOM CHANNEL REACHES**

| Reach No. | Reach Name | Reach Limits | | Reach Length (ft) | Area (acres) |
|-----------|--|--------------------------------|------------------------------|-------------------|--------------|
| | | Upstream | Downstream | | |
| 39 | Beatty Channel Outlet @SGR 25+99.00 | Mouth of Beatty Channel Outlet | Confluence San Gabriel River | 390 | 0.26 |
| 40a | San Gabriel River – Santa Fe Dam to I-10 Freeway | Santa Fe Dam | I-10 Freeway | 20,996 | 161.76 |
| 40b | San Gabriel River – I-10 Freeway to Thienes Ave | I-10 Freeway | Thienes Ave | 12,374 | 127.10 |
| 41 | Walnut Creek | N Baldwin Park Blvd | San Gabriel River | 5,438 | 40.90 |
| 42 | San Jose Creek d/s 1,000 ft from end of concrete | COE Station 87+25.00 | COE Station 79+25.00 | 800 | 2.73 |
| 43a | San Gabriel River – Upper | Whittier Narrows Dam | San Gabriel River Parkway | 3,586 | 52.83 |
| 43b | San Gabriel River – Lower | San Gabriel River Parkway | Beverly Blvd | 3,068 | 22.07 |

TABLE 1
BIOLOGICAL TECHNICAL ASSESSMENT REPORT
NINE SOFT-BOTTOM CHANNEL REACHES

| Reach No. | Reach Name | Reach Limits | | Reach Length (ft) | Area (acres) |
|-----------|-----------------------------------|--|--|-------------------|--------------|
| | | Upstream | Downstream | | |
| 44 | San Gabriel River – Rubber Dams | Beverly Blvd | Firestone Blvd | 31,900 | 149.00 |
| 98 | Walnut Creek – Channel Inlet, SD1 | 30 ft upstream of perpendicular extension of Chaparro Rd | Perpendicular extension of Chaparro Rd | 80 | 0.14 |

ft: feet; I: Interstate; d/s: downstream; COE: U.S. Army Corps of Engineers
Source: LACFCD as provided in WDR Order No. R4-2010-0021 *some lengths may be different due to recent corrections.*

2.0 LITERATURE REVIEW

A literature review was conducted to review and update existing information gathered through the SBC maintenance program about plant and wildlife species that (1) have been afforded special status by federal, State, and local resource agencies and organizations and (2) have potential to occur in the San Gabriel River Watershed.

Sources reviewed include the following: (1) special status species lists from the California Department of Fish and Wildlife (CDFW), the U.S. Fish and Wildlife Service (USFWS), and the California Native Plant Society (CNPS); (2) the U.S. Geological Survey's (USGS') Azusa, El Monte, Baldwin Park, San Dimas, and Whittier 7.5-minute quadrangles in the CDFW's California Natural Diversity Database (CNDDDB) (CDFW 2011) and the CNPS' Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2011); (3) the most recent *Federal Register* listing package and critical habitat determination for each federally listed Endangered or Threatened species potentially occurring in the San Gabriel River Watershed; (4) the CDFW Annual Report on the status of California's listed Threatened and Endangered plants and wildlife; and (5) other biological studies conducted in the San Gabriel River Watershed that were relevant to this Report, including those conducted previously by BonTerra Psomas for the LACFCD.

The information gathered during the literature search, including a CNDDDB database search, was used by the biologists to develop appropriate survey methods.

3.0 BIOLOGICAL SURVEYS

Biological surveys for plant and wildlife species were performed at each of the SBC reaches (see Table 1). The survey area for each reach included habitats within the channel and on the adjacent channel banks. Most of the surveys were conducted in the spring and summer seasons prior to LACFCD's annual maintenance activities, which are performed during the fall. The surveys at each of these nine SBC reaches included mapping of vegetation types; focused searches for special status species including Threatened and Endangered plant and wildlife species; and summer season bird surveys. In addition, migratory bird surveys were conducted at Reach 43 (San Gabriel River – Upper). The methods used to complete these surveys are described below.

3.1 VEGETATION MAPPING SURVEYS

Fourteen vegetation types and five other areas were identified during the vegetation mapping surveys of the SBC reaches described in this Report (Table 2). Mapping of the vegetation types was accomplished concurrent with the summer season bird surveys and the final focused plant surveys conducted in 2010 for each of these SBC reaches. Recent aerial photographs at a scale of 1 inch = 500 feet were used to map vegetation types. Nomenclature for the vegetation types identified in these surveys generally follows the *List of Vegetation Alliances and Associations, Vegetation Classification and Mapping Program* (CDFW 2010b). The vegetation types identified in the surveys generally reflect the vegetation shown on the aerial maps along the alignment of each SBC reach. For most SBC reaches, the mapped vegetation represents the actual vegetation growing in the channel invert. For smaller SBC reaches, however, the mapped vegetation often consists of the canopies covering the channel invert from trees either rooted outside or on the channel banks. Walnut Creek – Channel Inlet, SD1 (Reach 98) is the only SBC reach in the San Gabriel River Watershed where the tree canopy covers the channel invert. The channel invert of Reach 98 is primarily water, but is partly covered by the canopy of southern coast live oak riparian forest on the south bank and mixed willow riparian forest on the north bank. The vegetation maps for each SBC reach are included in Appendix A.

**TABLE 2
VEGETATION TYPES**

| Vegetation Type | Reach Numbers |
|-------------------------------|--|
| coastal sage scrub | 39 |
| alluvial sage scrub | 39 |
| disturbed alluvial sage scrub | 40a |
| non-native grassland | 43a, 43b |
| Ruderal | 39, 40a, 40b, 41, 42, 43a, 43b, 44 |
| ruderal/open water | 40b, 41 |
| ruderal marsh | 44 |
| freshwater marsh | 40a, 40b, 43b, 44 |
| mixed willow riparian scrub | 40a, 40b, 41, 42, 43b, 44 |
| mixed willow riparian forest | 40b, 43a, 43b, 44, 98 |
| mule fat scrub | 39, 40a, 40b, 43a, 43b, 44 |
| coast live oak woodland | 98 |
| Ornamental | 40a, 44 |
| Non-Vegetation Type | Reach Numbers |
| unvegetated wash | 40a, 40b, 41, 43b, 44 |
| open water | 39, 40a, 40b, 41, 42, 43a, 43b, 44, 98 |
| Disturbed | 43a |
| ungrouted riprap | 40a, 40b |
| Developed | 39, 40a, 40b, 41, 42, 43a, 43b, 44 |

3.1.1 Descriptions of Vegetation Types

Coastal sage scrub is present in Reach 39. This native vegetation type is dominated by California sagebrush (*Artemisia californica*) with desert brittlebush (*Encelia farinosa*), coastal prickly-pear (*Opuntia littoralis*), scale broom (*Lepidospartum squamatum*), and laurel sumac (*Malosma laurina*). The understory is relatively open and dominated by small native annual forbs including coastal deerweed (*Acmispon glaber*), popcorn flower (*Cryptantha* spp.), and non-native grasses.

Alluvial sage scrub is present in Reach 39. This native vegetation type is dominated by scale broom, with California sagebrush, desert brittlebush, and coastal goldenbush (*Isocoma menziesii*) occurring throughout. Western sunflower (*Helianthus annuus*), telegraph weed (*Heterotheca grandiflora*), strigose lotus (*Acmispon strigosus*), and common plantain (*Plantago major*) are present in the understory.

Disturbed alluvial sage scrub is present in Reach 40a. This native vegetation type is in the vicinity of the alluvial sage scrub described above. The overstory of this vegetation type is dominated by scale broom, with California sagebrush, desert brittlebush, and coastal goldenbush. The shrub cover is much less dense in these areas due to disturbance. The understory is dominated by non-native forbs, including common plantain, weedy cudweed (*Pseudognaphalium luteoalbum*), as well as crimson fountain grass (*Pennisetum setaceum*) and wild oat (*Avena* sp). Non-native common oleander (*Nerium oleander*) is also present in this vegetation area.

Non-native grassland is present in Reaches 43a and 43b. This vegetation type is composed of non-native grass species including rattail fescue (*Festuca myuros*), ripgut grass (*Bromus diandrus*), hare barley (*Hordeum murinum* var. *leporinum*), and perennial ryegrass (*Festuca perennis*). Additional non-native forbs are present throughout including tocalote (*Centaurea*

melitensis), Italian thistle (*Carduus pycnocephalus* ssp. *pycnocephalus*), and white sweetclover (*Melilotus alba*). A small number of scattered Goodding's black willows (*Salix gooddingii*) were also present.

Ruderal (weedy) areas are present in Reaches 39, 40a, 40b, 41, 42, 43a, 43b, and 44. This vegetation type consists of areas that have been previously disturbed and now primarily support non-native vegetation with some weedy native vegetation that is well-adapted to disturbed conditions and high nitrogen soils. These areas occur adjacent to the developed areas or in the more upland areas of the SBC reaches. Species present in these areas include western sunflower, Italian thistle, white sweetclover, curly dock (*Rumex crispus*), bermuda grass (*Cynodon dactylon*), tall umbrella-sedge (*Cyperus eragrostis*), willow weed (*Persicaria* [*Polygonum*] *laphifolium*), annual beard grass (*Polypogon monspeliensis*), shortpod mustard (*Hirschfeldia incana*), smilo grass (*Piptatherum miliaceum*), Douglas' nightshade (*Solanum douglasii*), common horseweed (*Erigeron canadensis*), radish (*Raphanus sativus*), castor bean (*Ricinus communis*), and garland daisy (*Glebionis coronaria* [*Chrysanthemum coronarium*]). Scattered sandbar willow (*Salix exigua*) and mule fat (*Baccharis salicifolia*) were also present in these areas.

Ruderal/open water areas are present in Reaches 40b and 41. These areas are dominated by the ruderal species listed above that have been flooded by approximately one foot or more of water. These areas are generally outside the low-flow channel and, at some locations, the flooded area extends from the toe of slope to toe of slope of the SBC reaches.

Ruderal marsh is present in Reach 44. This vegetation type is dominated by low-growing herbaceous non-native species that are either rooted in the water or rooted directly adjacent to the water. The ruderal marsh in these SBC reaches is dominated by willow weed, white sweetclover, and tall umbrella-sedge. Scattered bulrush (*Scirpus* sp.) was also present in these areas.

Freshwater marsh is present in Reaches 40a, 40b, 43b, and 44. This native vegetation type is dominated by bulrush and cattails (*Typha* spp.), which are emergent plants that grow in one or more feet of water. This vegetation type is typically found adjacent to the open water areas of the SBC reaches. This vegetation type's boundaries are constantly changing due to changes in the water levels and the rapid growth of this species. Plant species in low densities within the bulrush and cattails include sedges (*Cyperus* spp.), willow weed, and great marsh evening primrose (*Oenothera elata* ssp. *hirsutissima*) with occasional scattered mature Goodding's black willows.

Mixed willow riparian scrub is present at Reaches 40a, 40b, 41, 42, 43b, and 44. This native vegetation type is dominated by Goodding's black willow, arroyo willow (*Salix lasiolepis*), and narrow-leaved willow (*Salix exigua*). This vegetation type typically consists of relatively small stands of willows. The willows are of various sizes and heights due to differing frequencies of scouring from rain events. The willows range from seedlings to trees, the tallest of which are approximately 20 feet high. This vegetation type differs from the willow riparian forest vegetation type by the size of the patch; the overall height of the patch; and the density of the understory. The understory in mixed willow riparian scrub varies at each SBC reach in the amount of non-native and native herbaceous species to unvegetated wash under the trees. The herbaceous species in some of the understory areas include mule fat, mugwort (*Artemisia douglasiana*), giant reed (*Arundo donax*), hoary nettle (*Urtica dioica* ssp. *holosericea*), desert wild grape (*Vitis girdiana*), and California dodder (*Cuscuta californica*).

Mixed willow riparian forest is present at Reaches 40b, 43a, 43b, 44, and 98. This native vegetation type is dominated by Goodding's black willow. This vegetation type varies from the mixed willow riparian scrub vegetation type described above in that the canopy contains larger trees (i.e., greater than 20 feet in height) and the canopy tends to be more dense. The mixed willow riparian forest has more than a few large willow trees in each patch; has trees over 20 feet

tall; and has a denser understory. The understory is sparse and dominated by willow seedlings and saplings with the occasional mule fat and giant reed distributed throughout.

Mule fat scrub is present in Reaches 39, 40a, 40b, 43a, 43b, and 44. This native vegetation type is dominated by mule fat, with scattered narrow-leaved willow, willow weed, western sunflower (*Helianthus annuus*), California dodder, great marsh evening primrose, Douglas' nightshade, and non-native species such as castor bean, curly dock, shortpod mustard and Spanish sunflower (*Pulicaria paludosa*).

Coast live oak woodland is present in Reach 98. This native vegetation type is dominated by dense stands of coast live oak (*Quercus agrifolia*) rooted in or adjacent to the banks of the SBC reach. The understory is dominated by native and non-native species such as mugwort, narrow leaved bedstraw (*Galium angustifolium*) ornamental species such as English ivy (*Hedera helix*); and ruderal species such as smilo grass and other non-native grasses.

Ornamental areas are present in Reaches 40a and 44. This non-native vegetation type consists of introduced trees and shrubs planted for aesthetic purposes. A wide variety of ornamental landscaping occurs adjacent to the SBC reaches in conjunction with existing developments. Many of these ornamental species (including trees, shrubs, and other ground covers) have spread into the channel reaches in varying amounts. Ornamental vegetation has formed large patches in some channel reaches. Reach 40a has an ornamental area occurring in the center of the SBC reach which is dominated by mature mulberry trees (*Morus* sp.). SBC Reach 44 has ornamental areas present dominated by ash trees (*Fraxinus* sp.), carob trees (*Ceratonia siliqua*), and gum trees (*Eucalyptus* spp.).

Unvegetated wash is present in Reaches 40a, 40b, 41, 43b, and 44. Unvegetated wash is not a vegetation type, but is delineated as a mapping unit on the vegetation maps. Unvegetated wash in the SBC reaches consists of bare sand or silt that does not contain any vegetation. These areas have been scoured and are typically colonized by riparian vegetation following scouring events.

Open water was present at the time of surveys and mapped in all nine SBC reaches of this feasibility study. Open water is not a vegetation type, but is delineated as a mapping unit on the vegetation maps. Open water typically consists of fresh water in the center of the SBC reaches that was either flowing or ponding. These areas generally contain little to no vegetation.

Disturbed areas are present in Reach 43a. This is not a vegetation type, but is delineated as a mapping unit on the vegetation maps. In this SBC reach, disturbed areas primarily consist of dirt roads. These areas typically contain exposed soil without concrete or development and little to no vegetation.

UngROUTED riprap is present in Reaches 40a and 40b. Both grouted riprap and riprap that is not grouted are generally mapped as developed areas on vegetation maps. UngROUTED riprap, however, can support substantial amounts of vegetation while grouted riprap typically supports very little vegetation. As a result, ungrouted riprap is delineated as a separate mapping unit on the vegetation maps. UngROUTED riprap is present on portions of the channel banks. Most vegetation present in ungrouted riprap in these two SBC reaches consists of ornamental and non-native ruderal species.

Developed areas are present in Reaches 39, 40a, 40b, 41, 42, 43a, 43b, and 44. This is not a vegetation type, but is delineated as a mapping unit on the vegetation maps. These areas are man-made structures that contain little to no vegetation. Any vegetation that is present typically consists of non-native ruderal species similar to that described above or invasive species such as fan palms (*Washingtonia* sp.), tree of heaven (*Ailanthus altissima*), and tree tobacco (*Nicotiana glauca*).

3.1.2 Special Status Plant Surveys

Focused surveys for special status plant species are conducted on a periodic basis for the 100 plus SBC reaches maintained by the LACFCD, including the San Gabriel River Watershed. These special status plant species surveys are discussed in more detail below for the SBC reaches covered by this Report.

Habitat assessments for federally and/or State-listed special status plant species were conducted for the LACFCD's SBC maintenance program in 2002. Although potentially suitable habitat for the federally and State-listed Endangered slender-horned spineflower (*Dodecahema leptoceras*) was identified at several SBC reaches, surveys were not conducted in 2002 due to the prevailing drought conditions. The slender-horned spineflower is an annual species that appears only after seasons with sufficient rainfall. The federally and State-listed Endangered Nevin's barberry (*Berberis nevinii*), a large and conspicuous shrub that can be identified year-round, was not present at any of the SBC reaches (including Reaches 39, 40a, 40b, 43a, 43b, and 44 of the San Gabriel River Watershed) that were identified as having potentially suitable habitat during the 2002 habitat assessments (BonTerra 2002). After a season of sufficient rainfall, focused surveys were conducted in 2003 for the slender-horned spineflower at all LACFCD SBC reaches with potentially suitable habitat for this species. In 2003, these reaches included one SBC reach in the San Gabriel Watershed (i.e., Reach 39). The 2003 focused survey results for slender-horned spineflower were negative at all LACFCD SBC reaches, including the Reach 39 of the San Gabriel River Watershed. No further surveys were recommended as long as the existing maintenance plan and associated access routes were followed (BonTerra 2003).

As part of this Report, focused surveys for special status plant species were performed in 2011 at each of the SBC reaches in the San Gabriel River Watershed by BonTerra Biologists Jennifer Pareti, Jeff Crain, and Allison Rudalevige and Consulting Botanist Sandra Leatherman. The survey dates and personnel are listed below in Table 3. Each of the SBC reaches was surveyed twice during 2011 (in April/May, and July/August), except for SBC Reaches 42, 43a, 43b, and 98, which did not present habitat suitable for the summer blooming southern tarplant (*Centromadia parryi* var. *parryi*).

**TABLE 3
FOCUSED PLANT SURVEY DATES AND PERSONNEL**

| Reach | Early Survey | Surveyors | Late Survey | Surveyors |
|-------|----------------|--------------------|----------------|--------------------|
| 39 | April 22, 2011 | Pareti, Leatherman | August 1, 2011 | Pareti, Leatherman |
| 40a | May 3, 2011 | Rudalevige, Crain | July 22, 2011 | Pareti, Leatherman |
| 40b | May 3, 2011 | Rudalevige, Crain | July 22, 2011 | Pareti, Leatherman |
| 41 | May 3, 2011 | Rudalevige, Crain | July 22, 2011 | Pareti, Leatherman |
| | | | July 27, 2011 | Pareti, Leatherman |
| 42 | April 22, 2011 | Pareti, Leatherman | no survey | |
| 43a | May 3, 2011 | Pareti, Leatherman | no survey | |
| 43b | May 3, 2011 | Pareti, Leatherman | no survey | |
| 44 | May 3, 2011 | Pareti, Leatherman | August 1, 2011 | Pareti, Leatherman |
| 98 | April 22, 2011 | Pareti, Leatherman | no survey | |

No special status plant species were observed at the nine SBC reaches in the San Gabriel River Watershed. The complete focused plant survey is included in Appendix B.

3.1.3 Special Status Wildlife Surveys

Focused surveys for special status wildlife species are conducted on a regular basis for the 100 plus SBC reaches managed by the LACFCD. Table 4 provides a summary of these surveys performed at the SBC reaches discussed in this Report. These special status wildlife species surveys are discussed in more detail below.

**TABLE 4
FOCUSED SURVEY RESULTS SUMMARY FOR WILDLIFE**

| Reach Number | Reach Name | Santa Ana Sucker | Arroyo Toad | California Red-Legged Frog | Southwestern Willow Flycatcher | Least Bell's Vireo |
|--------------|--|---|-------------|--|--|---|
| 39 | Beatty Channel Outlet @ SGR 25+99.00 | HA 2002: no habitat; however, it was determined that potentially suitable habitat may be present in other years so pre-clearing surveys are required. Negative FS results through 2014. | N/A | 2002 HA: no suitable habitat/no further surveys warranted | FS: 2005, 2007, 2009, 2011, 2013; negative survey results. | FS: 2005 (1 territory-pair); 2007 (2 territories-pairs); 2009 (4 territories-3 pairs/solitary male); 2011 (3 territories-pairs); 2013 (2 territories-pairs). |
| 40a | San Gabriel River (Santa Fe Dam to I-10 Freeway) | N/A | N/A | 2002 HA: no suitable habitat/no further surveys warranted. | N/A | N/A |
| 40b | San Gabriel River (I-10 Freeway to Thienes Ave) | N/A | N/A | 2002 HA: no suitable habitat/no further surveys warranted. | FS: 2002, 2003, 2005, 2007, 2009, 2011, 2013; negative survey results. | FS: 2002 (2 territories-pair/solitary male); 2003 (negative); 2005 (negative); 2007 (3 territories-pairs); 2009 (2 territories-pair/solitary male); 2011 (4 territories-pairs); 2013 (5 territories (4 pairs/solitary male). |
| 41 | Walnut Creek | N/A | N/A | N/A | N/A | N/A |
| 42 | San Jose Creek d/s 1,000 ft from end of concrete | N/A | N/A | N/A | N/A | N/A |
| 43a | San Gabriel River (Upper) | N/A | N/A | 2002 HA: no suitable habitat/no further surveys warranted. | FS: 2002, 2003, 2005, 2007, 2009, 2011, 2013; negative survey results. | FS: 2002 (1 territory-pair); 2003 (1 territory-solitary male); 2005 (1 territory-pair); 2007 (1 territory-pair); 2009 (4 territories-3 pairs/solitary male); 2011 (4 territories-2 pairs/2 solitary males); 2013 (3 territories-2 pairs/solitary male). |
| 43b | San Gabriel River (Lower) | N/A | N/A | 2002 HA: no suitable habitat/no further surveys warranted. | FS: 2002, 2003, 2005, 2007, 2009, 2011, 2013; negative survey results. | FS: 2002 (male with begging juvenile – one day observation); 2003 (negative); 2005 (negative); 2007 (negative); 2009 (1 territory-solitary male); 2011 (negative); 2013 (negative). |

**TABLE 4
FOCUSED SURVEY RESULTS SUMMARY FOR WILDLIFE**

| Reach Number | Reach Name | Santa Ana Sucker | Arroyo Toad | California Red-Legged Frog | Southwestern Willow Flycatcher | Least Bell's Vireo |
|---------------------|---------------------------------|-------------------------|--------------------|-----------------------------------|---------------------------------------|---------------------------|
| 44 | San Gabriel River – Rubber Dams | N/A | N/A | N/A | N/A | N/A |
| 98 | Inlet Walnut Creek | N/A | N/A | N/A | N/A | N/A |

HA: habitat assessment survey; FS: focused survey (survey areas include a 500ft buffer); N/A: Not Applicable (no suitable habitat and/or outside known range); I: Interstate; d/s: downstream; ft: feet;

As required by the regulatory permits, annual focused (pre-clearing) surveys for the State- and federally listed Endangered unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) and federally listed Threatened Santa Ana sucker (*Catostomus santaanae*) are conducted in those SBC reaches with appropriate habitat. The unarmored threespine stickleback no longer occurs in the Los Angeles River Watershed, but the Santa Ana sucker is present in the West, North, and East forks of the upper San Gabriel River of the Angeles National Forest. Of the nine SBC reaches surveyed for this Report, only Beatty Channel Outlet (Reach 39) was identified in 2002 as having the potential to support the Santa Ana sucker (BonTerra 2002). This SBC reach is a side outlet within the San Gabriel River upstream of the I-210 Freeway and, since 2002, has usually contained sufficient amounts of water for focused surveys (seining). The Santa Ana sucker has been absent in all surveys conducted at Reach 39 since 2002. The most recent 2013 fish survey report prepared for the LACFCD's SBC maintenance program is included as Appendix C.

Habitat assessments were conducted in 2002 for the federally listed Endangered arroyo toad (*Anaxyrus californicus*) and federally listed Threatened California red-legged frog (*Rana draytonii*) at those LACFCD SBC reaches within the known range of the species. The arroyo toad occurs in the Santa Clara River Watershed, but not the Los Angeles River Watershed. Therefore, no habitat assessments for the arroyo toad were conducted in 2002 at any of the SBC reaches addressed in this Report. At that time, the final designation of Critical Habitat for the California red-legged frog included areas in the vicinity of Big Tujunga Creek (USFWS 2001). As a result, habitat assessments for the California red-legged frog were conducted in 2002 at SBC reaches in the general area surrounding Big Tujunga Creek. These habitat assessments were also conducted in the San Gabriel River Watershed and included Reaches 39, 40a, 40b, 43a, and 43b. These surveys found no suitable habitat for the California red-legged frog at any of these SBC reaches and concluded that no further surveys for the species were required (BonTerra 2002).

Focused surveys for the southwestern willow flycatcher (*Empidonax traillii extimus*) and least Bell's vireo (*Vireo bellii pusillus*), which are both State- and federally listed Endangered Species, have been conducted at those SBC reaches in the San River Watershed that contain potentially suitable habitat for these two bird species. In 2002, surveys were conducted at Reaches 40a, 40b, 43a, and 43b, but only at 40b, 43a, and 43b in 2003 as it was determined that 40a does not provide suitable habitat for either the southwestern willow flycatcher or least Bell's vireo (BonTerra 2002, 2003). Focused surveys were initiated in 2005 at Reach 39 after annual habitat assessment surveys determined that potentially suitable habitat was present for these two bird species. The survey results have been negative for southwestern willow flycatcher at all reaches in the San Gabriel River Watershed (see Table 4). The least Bell's vireo, however, has occupied the San Gabriel River Watershed Reaches 39, 40b and 43a with a small but growing population: two territories in 2002 and ten territories in 2013. Reach 43b, immediately downstream of Reach 43a, has supported minimal least Bell's vireo activity with only one territory established in 2009. Although willow trees are fairly numerous in Reach 43b, the dense layer of understory vegetation necessary for nesting least Bell's vireo is lacking in this SBC reach. Reach 43b, however, is expected to occasionally support some least Bell's vireo activity during the breeding season due to its proximity to Reach 43a. For example, a male least Bell's vireo with a begging juvenile observed in willows at the upstream end of Reach 43b on July 9, 2002, was presumed to have wandered from a territory established elsewhere, but most likely from the suitable breeding habitat upstream in Reach 43a. The most recent 2013 focused survey report for the southwestern willow flycatcher and least Bell's vireo prepared for the LACFCD's SBC maintenance program is included as Appendix D.

3.1.4 Summer Season Bird Surveys

In conjunction with the plant surveys discussed above, summer season surveys for birds were conducted at each of the nine SBC reaches. These surveys focused on detecting and identifying all the birds using the habitats in these nine SBC reaches (Table 5). These surveys were conducted by BonTerra Psomas Senior Biologist/Ornithologist Brian E. Daniels on June 23 and 24, 2011. Since these surveys were performed after the spring migration season, most of the bird species recorded can be assumed to be breeding or potentially breeding in or near the SBC reach in which they were observed.

**TABLE 5
RESULTS OF SUMMER SEASON BIRD SURVEYS**

| Species | Reach Numbers | | | | | | | | |
|---|---------------|-----|-----|----|-----|-----|-----|----|----|
| | 39 | 40a | 40b | 41 | 42 | 43a | 43b | 44 | 98 |
| Canada goose (<i>Branta canadensis</i>) | | | | | | | 1 | | |
| gadwall (<i>Anas strepera</i>) | | | | | | | | 8 | |
| mallard (<i>Anas platyrhynchos</i>) | | | 20 | 15 | 30 | 12 | 40 | 50 | |
| cinnamon teal (<i>Anas cyanoptera</i>) | | | 3 | | 2 | | | | |
| California quail (<i>Callipepla californica</i>) | 15 | | | | | | | | |
| pieb-billed grebe (<i>Podilymbus podiceps</i>) | | | | | | | 2 | 2 | |
| double-crested cormorant (<i>Phalacrocorax auritus</i>) | | | 1 | | | 1 | 2 | 3 | |
| great blue heron (<i>Ardea herodias</i>) | | | 1 | | | | 4 | | |
| great egret (<i>Ardea alba</i>) | | | 1 | | | | 2 | 4 | |
| snowy egret (<i>Egretta thula</i>) | | | 2 | | | 2 | 10 | 10 | |
| green heron (<i>Butorides virescens</i>) | | | | | | 1 | 1 | 1 | |
| black-crowned night-heron (<i>Nycticorax nycticorax</i>) | | | 1 | | | | 6 | 5 | |
| Cooper's hawk (<i>Accipiter cooperii</i>) | | | | | | 1 | 1 | | |
| red-shouldered hawk (<i>Buteo lineatus</i>) | | | | | | | | 1 | 1 |
| red-tailed hawk (<i>Buteo jamaicensis</i>) | | 1 | | | | | | 1 | |
| common gallinule (<i>Gallinula galeata</i>) | | | | | | | 1 | | |
| American coot (<i>Fulica americana</i>) | | | | | | | | 3 | |
| black-necked stilt (<i>Himantopus mexicanus</i>) | | | | 5 | 20 | | | | |
| killdeer (<i>Charadrius vociferous</i>) | | 2 | 2 | 4 | 4 | | 2 | 6 | |
| spotted sandpiper (<i>Actitis macularius</i>) ² | | | | 1 | | | | | |
| western gull (<i>Larus occidentalis</i>) | | | 2 | | 615 | | 1 | | |
| California gull (<i>Larus californicus</i>) | | | 1 | | 15 | | | | |
| rock pigeon (<i>Columba livia</i>)* | | 25 | | 5 | | 5 | 5 | 15 | |
| Eurasian collared-dove (<i>Streptopelia chinensis</i>)* | | | 1 | 12 | | | | 2 | |
| mourning dove (<i>Zenaida macroura</i>) | 4 | 1 | 1 | 1 | | 2 | 3 | | |
| white-throated swift (<i>Aeronautes saxatalis</i>) | | 2 | | 2 | | | | 2 | |
| black-chinned hummingbird (<i>Archilochus alexandri</i>) | | | 1 | | | | | | 1 |
| Anna's hummingbird (<i>Calypte anna</i>) | 1 | | 2 | | | 2 | | | |
| Costa's hummingbird (<i>Calypte costae</i>) | 1 | | | | | | | | |
| Allen's/rufous hummingbird (<i>Selasphorus sasin</i> or <i>rufus</i>) | 2 | | 1 | | | | | | 1 |
| acorn woodpecker (<i>Melanerpes formicivorus</i>) | | | | | | | | | 1 |
| Nuttall's woodpecker (<i>Picoides nuttallii</i>) | | | | | | 1 | 1 | | |
| downy woodpecker (<i>Picoides pubescens</i>) | | | | | | 2 | | | |
| American kestrel (<i>Falco sparverius</i>) | | 4 | 1 | | | | | | |

**TABLE 5
RESULTS OF SUMMER SEASON BIRD SURVEYS**

| Species | Reach Numbers | | | | | | | | |
|---|---------------|-----|-----|----|----|-----|-----|----|----|
| | 39 | 40a | 40b | 41 | 42 | 43a | 43b | 44 | 98 |
| peregrine falcon (<i>Falco peregrinus</i>) | | | | 1 | | | | | |
| Pacific-slope flycatcher (<i>Empidonax difficilis</i>) | | | | | | 1 | | | |
| black phoebe (<i>Sayornis nigricans</i>) | 2 | 1 | 2 | 4 | 4 | 3 | 3 | 5 | 2 |
| ash-throated flycatcher (<i>Myiarchus cinerascens</i>) | | | | | | 1 | | | |
| Cassin's kingbird (<i>Tyrannus vociferans</i>) | | | 2 | | | 2 | | 2 | |
| Bell's vireo (<i>Vireo bellii</i>) | | | 1 | | | 6 | | | |
| Hutton's vireo (<i>Vireo huttoni</i>) ² | | | | | | 1 | | | |
| western scrub-jay (<i>Aphelocoma californica</i>) | 6 | | | | | | 2 | | 2 |
| American crow (<i>Corvus brachyrhynchos</i>) | | | 2 | | | 10 | 10 | 10 | 4 |
| common raven (<i>Corvus corax</i>) | | 1 | | | | | 1 | 2 | |
| northern rough-winged swallow (<i>Stelgidopteryx serripennis</i>) | 2 | | 1 | 4 | 2 | 4 | 8 | 30 | |
| cliff swallow (<i>Petrochelidon pyrrhonota</i>) | 5 | | 4 | | | 10 | 25 | 30 | |
| barn swallow (<i>Hirundo rustica</i>) | | 4 | 6 | 4 | | 5 | 8 | 15 | |
| oak titmouse (<i>Baeolophus inornatus</i>) ² | | | | | | | | | 2 |
| bushtit (<i>Psaltriparus minimus</i>) | 10 | | | | | 25 | 10 | | |
| house wren (<i>Troglodytes aedon</i>) | | | | | | 1 | | | |
| Bewick's wren (<i>Thryomanes bewickii</i>) | 3 | | | | | | | | |
| wrentit (<i>Chamaea fasciata</i>) | 2 | | | | | | | | |
| American robin (<i>Turdus migratorius</i>) | | | | | | 2 | | | |
| California thrasher (<i>Toxostoma redivivum</i>) | 1 | | | | | | | | |
| northern mockingbird (<i>Mimus polyglottos</i>) | 4 | | 2 | 2 | | | 3 | 5 | |
| European starling (<i>Sturnus vulgaris</i>)* | | 5 | 45 | | 1 | | 5 | | |
| orange-crowned warbler (<i>Oreothlypis celata</i>) | | | | | | 1 | | | 1 |
| common yellowthroat (<i>Geothlypis trichas</i>) | 4 | | 10 | 5 | | 20 | 15 | 5 | |
| yellow warbler (<i>Setophaga petechia</i>) ¹ | 1 | | | | | 18 | 4 | 6 | |
| yellow-breasted chat (<i>Icteria virens</i>) ¹ | 2 | | | | | 8 | | | |
| spotted towhee (<i>Pipilo maculatus</i>) | 1 | | | | | 4 | | | |
| California towhee (<i>Melospiza crissalis</i>) ² | 2 | | 3 | 2 | | 5 | 3 | 3 | 1 |
| song sparrow (<i>Melospiza melodia</i>) | 8 | | 15 | 4 | | 20 | 12 | 10 | 1 |
| northern cardinal (<i>Cardinalis cardinalis</i>)* | | | | | | 1 | | | |
| black-headed grosbeak (<i>Pheucticus melanocephalus</i>) ² | | | | | | 1 | | | |
| blue grosbeak (<i>Passerina caerulea</i>) | | 1 | 1 | | | 3 | | 1 | |
| red-winged blackbird (<i>Agelaius phoeniceus</i>) | 2 | | 8 | | | | 10 | | |
| Brewer's blackbird (<i>Euphagus cyanocephalus</i>) | | | | | 1 | | | | |
| great-tailed grackle (<i>Quiscalus mexicanus</i>) | 1 | | 1 | | | 1 | 1 | 2 | |
| brown-headed cowbird (<i>Molothrus ater</i>) | 1 | | 4 | | | 1 | | 1 | 1 |
| hooded oriole (<i>Icterus cucullatus</i>) | | | | | | | 1 | | 1 |
| Bullock's oriole (<i>Icterus bullockii</i>) | | | 2 | | | 2 | | | 1 |
| house finch (<i>Haemorhous mexicanus</i>) | 3 | 2 | 3 | 10 | | 15 | 10 | 10 | 2 |
| lesser goldfinch (<i>Spinus psaltria</i>) | 4 | | 5 | 4 | | 20 | 5 | | 2 |
| American goldfinch (<i>Spinus tristis</i>) | 5 | | 8 | 4 | | 15 | | 1 | |
| house sparrow (<i>Passer domesticus</i>)* | | | 2 | 5 | | | 2 | 15 | |

**TABLE 5
RESULTS OF SUMMER SEASON BIRD SURVEYS**

| Species | Reach Numbers | | | | | | | | |
|--|---------------|-----------|------------|-----------|------------|------------|------------|------------|-----------|
| | 39 | 40a | 40b | 41 | 42 | 43a | 43b | 44 | 98 |
| scaly-breasted munia (<i>Lonchura punctulata</i>)* | | | | | | 2 | | | |
| orange bishop (<i>Euplectes franciscanus</i> **) | 1 | | 2 | | | | | | |
| TOTAL SPECIES | 27 | 12 | 38 | 20 | 10 | 40 | 36 | 33 | 16 |
| TOTAL INDIVIDUALS | 93 | 49 | 170 | 94 | 694 | 237 | 220 | 266 | 24 |
| * Introduced non-native species with established breeding population in California. | | | | | | | | | |
| ** Exotic or escaped non-native species that may or may not be breeding in California | | | | | | | | | |
| ¹ Listed as a California Bird Species of Special Concern (Shuford and Gardali 2008) | | | | | | | | | |
| ² On the Los Angeles County Bird Watchlist (Los Angeles County Sensitive Bird Species Working Group 2009) | | | | | | | | | |

The presence of water in any of these SBC reaches, especially during the summer, can be an important component of high quality habitat for birds. As indicated by the number of waterbirds present during these surveys, the surface water that was available in Reaches 40b, 41, 42, 43a, and 44 was fairly substantial. Although not listed as special status species, the cinnamon teal (*Anas cyanoptera*) at Reaches 40b and 42 and common gallinule (*Gallinula galeata*) at Reach 43b are uncommon and local summer residents in the region. Surface water typically increases, sometimes considerably, the diversity and abundance of birds that use these SBC reaches. For example, the 615 western gulls (*Larus occidentalis*) present in Reach 42 during the survey were there to drink and bathe in the plentiful water of that SBC reach (bank to bank flowing water). Without the water, there would be no other reason for the gulls to congregate at Reach 42.

The highest species totals were recorded at Reaches 43a and 40b, with 40 and 38 species, respectively. Both these SBC reaches also support the State- and federally listed Endangered least Bell's vireo (see discussion above of Special Status Wildlife Surveys under Section 3.0) with a total of six individuals counted at Reach 43a and one individual at Reach 40b (see Table 5). The six individuals at Reach 43a were observed on June 24, 2011, and consisted of an adult pair feeding two fledglings and two singing males. The one least Bell's vireo detected on June 23, 2011, at Reach 40b was a singing male. These summer season bird surveys were conducted in the same time period in which focused surveys were conducted for least Bell's vireo at all these two SBC reaches. Reach 43a supported four least Bell's vireo territories that consisted of two pairs (mated male and female) and two solitary males (unmated males) and Reach 40b supported four territories, each with a mated pair (see Table 4). Focused surveys consist of multiple surveys conducted throughout the breeding season that employ methods intended to find each individual of the species; other species recorded are incidental to the purpose of those surveys. The summer season bird surveys were one-day surveys that employed methods intended to measure the diversity of abundance of all species that use the SBC reach.

TABLE 6
SUMMER BIRD DIVERSITY AND ABUNDANCE AT THE
NINE SOFT-BOTTOM CHANNEL REACHES
(RANKED HIGH TO LOW FOR BIRD DENSITY)

| Reach Number | Reach Name | Area (acres) | Total Bird Species/ Species Diversity (species per acre) | Total Bird Abundance/ Bird Density (birds per acre) |
|--------------|--|--------------|--|---|
| 39 | Beatty Channel Outlet @SGR 25+99.00 | 0.26 | 27/103.85 | 93/357.69 |
| 98 | Walnut Creek – Channel Inlet, SD1 | 0.14 | 16/114.29 | 45/321.43 |
| 42 | San Jose Creek d/s 1,000 ft from end of concrete | 2.73 | 10/3.66 | 694/254.21 |
| 43b | San Gabriel River – Lower | 22.07 | 36/1.63 | 220/9.97 |
| 43a | San Gabriel River – Upper | 52.83 | 40/0.76 | 237/4.49 |
| 41 | Walnut Creek | 40.90 | 20/0.49 | 94/2.30 |
| 44 | San Gabriel River – Rubber Dams | 149.00 | 33/0.22 | 266/1.79 |
| 40b | San Gabriel River – I-10 Freeway to Thienes Ave | 127.10 | 38/0.30 | 170/1.34 |
| 40a | San Gabriel River – Santa Fe Dam to I-10 Freeway | 161.76 | 12/0.07 | 24/0.15 |

d/s: downstream; ft: feet; I: Interstate

Table 6 above ranks the nine channel reaches of this Feasibility Study from high to low based on bird density derived from the one-day summer season bird surveys. The small channel reaches (Reaches 39, 98, and 42) are ranked highest due in part to the presence of abundant water on the channel invert that attracts birds from surrounding area, but also due to edge effects¹ inherent with small study sites. In particular, San Jose Creek (Reach 42), provides regular flowing water from the San Jose Water Reclamation Plant. This open water habitat attracts large numbers of gulls in transit to and from landfills. In between feeding at landfills, gulls bathe, drink, and loaf at bodies of water. As Table 5 above shows, a total of 615 western gulls (*Larus occidentalis*) is exceptional relative to the overall numbers of birds recorded at the 9 channel reaches included in this study, but hundreds of gulls at Reach 42 is a regular mid-day occurrence. The Beatty Channel Outlet (Reach 39) is a narrow channel reach is a side outlet within the larger San Gabriel River. Reach 39 supports regular flows of released water from the San Gabriel Valley Municipal Water District and attracts birds from the surrounding habitats of the San Gabriel River. In dry years, such as the survey year for this study, the open water in Reach 39 is even more valuable to wildlife. Reach 98 is the soft-bottom inlet into the concrete flood control portion of the Walnut Creek channel. Water flows in Walnut Creek are regulated by periodic releases from Puddingston Reservoir. Although the environmental setting of Reach 98 is residential, the natural vegetation types on the banks of Walnut Creek merge into relatively substantial ornamental vegetation in neighboring backyards, forming an ecotone that often enhances existing biological value, especially for widespread urban-adapted bird species.

Of the larger channel reaches in this Feasibility Study (Reaches 40a, 40b, 41, 43a, 43b, and 44), the San Gabriel River – Lower (Reach 43b) supported the highest bird density. All nine SBC reaches in this Feasibility Study contained open water habitat during these surveys, but Reach

¹ Edge effects occur at the boundary of dissimilar habitats. These effects can often be deleterious, especially for species considered to be ecological specialists. Species that thrive in these situations are considered to be generalists and are typically common and widespread species adapted for many different habitats. Edges or ecotones often support higher biodiversity.

43b contained open water that was receding. Not only can open water habitats provide bathing, drinking and loafing opportunities (such as described above for the gulls in Reach 42), but it can also provide foraging opportunities for many bird species. In particular, receding water levels can concentrate prey and, as a result, their predators. During these surveys, water levels were not only receding in Reach 43b, but also downstream in the six-mile-long Reach 44. Many waterbirds respond quickly to these conditions, particularly herons and egrets. Both Reaches 43b and 44 supported relatively large numbers of these species during these summer season bird surveys (see Table 5).

3.1.5 Migratory Bird Surveys

Migratory bird surveys were performed before and after LACFCD's annual fall maintenance activities at San Gabriel River SBC Reaches 43a and 43b. "Migratory birds" refer to those species that regularly migrate to and from distant areas where they nest and spend the winter. In North America, about 75 percent of breeding birds migrate, with the rest remaining year-round in the same general area (Sibley 2001). Peak migration periods in North America occur during the spring (April–May) and fall (September–October) seasons, but many bird migrations take place throughout the year, especially in warmer regions such as Southern California. Depending on the species, migrations occur at night (nocturnal) or during the day (diurnal) and are subject to a variety of environmental influences, particularly weather.

The migratory bird surveys were conducted by BonTerra Psomas Senior Biologist/Ornithologist Brian E. Daniels. The San Gabriel River SBC Reaches 43a and 43b were selected as they are contiguous and support similar habitats (willow dominated riparian habitats), but have differing maintenance patterns. In Reach 43a, polygons of willows with intact understory vegetation consisting primarily of mule fat are allowed to remain. Clearing of vegetation in Reach 43a is achieved by mowing, which occurs outside these protected polygons. Where large willows potentially obstruct flowing water, the lower branches are trimmed in a "lollypop" manner. No polygons of vegetation are protected in Reach 43b. Mature willows are allowed to remain in Reach 43b, and are generally located in the center of the channel reach next to the low flow channel. These willows are also trimmed in the "lollypop" manner and the understory vegetation is mowed.

The migratory bird survey results for Reaches 43a and 43b are shown below in Table 7. The pre-clearing surveys for both channel reaches were conducted in September 2011 during the peak of fall migration. The results for both SBC reaches show relatively few species that are confidently identified as "transients" (a term used for migratory birds being at a location for a relatively short stay during migration). Two species at Reach 43a, warbling vireo (*Vireo gilvus*) and Wilson's warbler (*Cardellina pusilla*), and two species at Reach 43b, warbling vireo and lazuli bunting (*Passerina amoena*), are clearly transients because neither species winters or summers at this location. In migration, willows and other trees provide valuable foraging habitat for the warbling vireo and Wilson's warbler, while weedy vegetation provides valuable foraging habitat for the lazuli bunting. As shown by the maps of vegetation types (see Appendix A), Reach 43a provides far more willow (trees) habitat (mixed willow riparian forest) relative to weedy habitat (ruderal). Reach 43b typically provides far more weedy habitat than willows, but the vegetation mapping survey was conducted during a period of receding water that left behind mud (mapped as unvegetated wash). Areas of mud in SBC reaches quickly becomes vegetated unless repeatedly inundated with water. At Reach 43b, areas of mud primarily become vegetated with ruderal species.

**TABLE 7
MIGRATORY BIRD SURVEYS**

| Species | San Gabriel River – Upper Reach 43a | | San Gabriel River – Lower Reach 43b | |
|---|---|-----------------|---|-----------------|
| | Sept. 12, 2011 | Nov. 9, 2011 | Sept. 12, 2011 | Nov. 9, 2011 |
| Canada goose (<i>Branta canadensis</i>) | | | | 4 |
| American wigeon (<i>Anas americana</i>) | | | | 25 |
| mallard (<i>Anas platyrhynchos</i>) | 5 | 12 | 8 | 20 |
| cinnamon teal (<i>Anas cyanoptera</i>) | | | | 2 |
| northern pintail (<i>Anas acuta</i>) | | | | 1 |
| green-winged teal (<i>Anas crecca</i>) | | | | 2 |
| pied-billed grebe (<i>Podilymbus podiceps</i>) | 4 | | | 3 |
| great blue heron (<i>Ardea herodias</i>) | 1 | | 3 | 3 |
| great egret (<i>Ardea alba</i>) | | 5 | 1 | |
| snowy egret (<i>Egretta thula</i>) | 2 | | | 4 |
| green heron (<i>Butorides virescens</i>) | | 1 | 2 | |
| black-crowned night-heron (<i>Nycticorax nycticorax</i>) | | 2 | 6 | |
| turkey vulture (<i>Cathartes aura</i>) | | | 3 | |
| sharp-shinned hawk (<i>Accipiter striatus</i>) | | 1 | | |
| red-shouldered hawk (<i>Buteo lineatus</i>) | 1 | 1 | | |
| red-tailed hawk (<i>Buteo jamaicensis</i>) | | 1 | | 3 |
| common gallinule (<i>Gallinula galeata</i>) | 1 | | 1 | |
| American coot (<i>Fulica americana</i>) | | 20 | | 190 |
| killdeer (<i>Charadrius vociferus</i>) | | | 2 | 2 |
| spotted sandpiper (<i>Actitis macularius</i>) | | | 1 | 1 |
| greater yellowlegs (<i>Tringa melanoleuca</i>) | | | 1 | |
| least sandpiper (<i>Calidris minutilla</i>) | | | 9 | |
| western gull (<i>Larus occidentalis</i>) | 1 | | | |
| California gull (<i>Larus californicus</i>) | | 3 | | |
| rock pigeon (<i>Columba livia</i>)* | 12 | 10 | 2 | 18 |
| Eurasian collared-dove (<i>Streptopelia decaocto</i>)* | | | 1 | |
| mourning dove (<i>Zenaida macroura</i>) | 10 | 6 | 2 | |
| black-chinned hummingbird (<i>Archilochus alexandri</i>) | 1 | | | |
| Anna's hummingbird (<i>Calypte anna</i>) | 9 | 10 | 1 | |
| Allen's/rufous hummingbird (<i>Selasphorus sasin</i> or <i>rufus</i>) | 1 | | | |
| belted kingfisher (<i>Ceryle alcyon</i>) | | | 1 | 1 |
| Nuttall's woodpecker (<i>Picoides nuttallii</i>) | 2 | | | 1 |
| downy woodpecker (<i>Picoides pubescens</i>) | 2 | 2 | 1 | |
| northern flicker (<i>Colaptes auratus</i>) | | 2 | | |
| American kestrel (<i>Falco sparverius</i>) | | | 1 | 1 |
| red-crowned Parrot (<i>Amazona viridigenalis</i>)* | 42 | | | |
| black phoebe (<i>Sayornis nigricans</i>) | 9 | 15 | 5 | 5 |
| Say's phoebe (<i>Sayornis saya</i>) | | 2 | 1 | |
| Cassin's kingbird (<i>Tyrannus vociferans</i>) | 4 | 5 | 2 | 1 |

**TABLE 7
MIGRATORY BIRD SURVEYS**

| Species | San Gabriel River – Upper Reach 43a | | San Gabriel River – Lower Reach 43b | |
|---|---|-----------------|---|-----------------|
| | Sept. 12, 2011 | Nov. 9, 2011 | Sept. 12, 2011 | Nov. 9, 2011 |
| western kingbird (<i>Tyrannus verticalis</i>) | | | 1 | |
| Bell's vireo (<i>Vireo bellii</i>) | 1 | | | |
| hutton's vireo (<i>Vireo huttoni</i>) | | 1 | | |
| warbling vireo (<i>Vireo gilvus</i>) | 1 | | 1 | |
| western scrub-jay (<i>Aphelocoma californica</i>) | 1 | | 1 | 2 |
| American crow (<i>Corvus brachyrhynchos</i>) | | 13 | | 6 |
| common raven (<i>Corvus corax</i>) | 2 | 1 | 2 | |
| barn swallow (<i>Hirundo rustica</i>) | | | 1 | |
| bushtit (<i>Psaltriparus minimus</i>) | 80 | 40 | 15 | 20 |
| house wren (<i>Troglodytes aedon</i>) | 4 | 6 | 1 | |
| Bewick's wren (<i>Thryomanes bewickii</i>) | 3 | 3 | | |
| ruby-crowned kinglet (<i>Regulus calendula</i>) | | 3 | | |
| western bluebird (<i>Sialia mexicana</i>) | | 6 | | |
| hermit thrush (<i>Catharus guttatus</i>) | | 1 | | |
| American robin (<i>Turdus migratorius</i>) | | 2 | | |
| northern mockingbird (<i>Mimus polyglottos</i>) | | 2 | 4 | 2 |
| European starling (<i>Sturnus vulgaris</i>)* | | | 1 | |
| American pipit (<i>Anthus rubescens</i>) | | 15 | | |
| orange-crowned warbler (<i>Oreothlypis celata</i>) | 2 | 6 | | |
| Nashville warbler (<i>Oreothlypis ruficapilla</i>) | | 2 | | |
| common yellowthroat (<i>Geothlypis trichas</i>) | 54 | 39 | 22 | 7 |
| yellow warbler (<i>Setophaga petechia</i>) | 2 | | 1 | |
| yellow-rumped warbler (<i>Setophaga coronata</i>) | | 39 | | 16 |
| black-throated gray warbler (<i>Setophaga nigrescens</i>) | | 1 | | 1 |
| Wilson's warbler (<i>Cardellina pusilla</i>) | 3 | | | |
| spotted towhee (<i>Pipilo maculatus</i>) | 4 | 1 | | |
| California towhee (<i>Melospiza crissalis</i>) | 13 | 9 | 2 | |
| savannah sparrow (<i>Passerculus sandwichensis</i>) | | | 11 | |
| song sparrow (<i>Melospiza melodia</i>) | 36 | 32 | 23 | 1 |
| white-crowned sparrow (<i>Zonotrichia leucophrys</i>) | | 17 | | 15 |
| black-headed grosbeak (<i>Pheucticus melanocephalus</i>) | 1 | | | |
| blue grosbeak (<i>Passerina caerulea</i>) | | | 1 | |
| lazuli bunting (<i>Passerina amoena</i>) | 3 | | 3 | |
| red-winged blackbird (<i>Agelaius phoeniceus</i>) | 2 | 14 | 6 | 8 |
| Brewer's blackbird (<i>Euphagus cyanocephalus</i>) | 2 | | | |
| brown-headed cowbird (<i>Molothrus ater</i>) | 35 | | | |
| house finch (<i>Haemorhous mexicanus</i>) | 90 | 19 | 4 | 2 |
| lesser goldfinch (<i>Spinus psaltria</i>) | 30 | 13 | 2 | |

**TABLE 7
MIGRATORY BIRD SURVEYS**

| Species | San Gabriel River – Upper Reach 43a | | San Gabriel River – Lower Reach 43b | |
|--|---|----------------------|---|-----------------------|
| | Sept. 12, 2011 | Nov. 9, 2011 | Sept. 12, 2011 | Nov. 9, 2011 |
| American goldfinch (<i>Spinus tristis</i>) | 5 | 14 | 1 | |
| mutmeg mannikin (<i>Lonchura punctulata</i>)* | 5 | | 6 | 10 |
| TOTAL SPECIES | 40 | 42 | 42 | 31 |
| TOTAL BIRD ABUNDANCE/BIRD DENSITY (bird per acre) | 486 (9.2) | 397 (7.5) | 163 (7.4) | 377 (17.1) |
| * Introduced Species – Non-native species that have received recognition by the California Bird Records Committee (CBRC) as having established breeding populations in California. | | | | |

Other species observed during the September 12, 2011, survey with the potential to have summered and/or winter at these two SBC reaches, but are considered more likely to have been transients included the spotted sandpiper (*Actitis macularius*), greater yellowlegs (*Tringa melanoleuca*), least sandpiper (*Calidris minutilla*), black-chinned hummingbird (*Archilochus alexandri*), western kingbird (*Tyrannus verticalis*), barn swallow (*Hirundo rustica*), orange-crowned warbler (*Oreothlypis celata*), yellow warbler (*Setophaga petechia*), black-headed grosbeak (*Pheucticus melanocephalus*), and blue grosbeak (*Passerina caerulea*). As with the “pure” transients discussed above, these species also have habitat preferences during migration. The sandpipers, including the greater yellowlegs, forage in shallow water and/or mud habitats. The warblers and black-headed grosbeak prefer trees while the blue grosbeak prefers to forage in weedy habitats. The barn swallow is an aerial forager that captures prey over all riparian habitats. Of these “pure” and “probable” transients identified during this survey, a total of five species and seven individuals were recorded in Reach 43a and nine species and 19 individuals were tallied in Reach 43b.

The post-clearing migratory bird surveys at Reaches 43a and 43b were conducted on November 9, 2011. Although November is past the peak migration period (September to October) for the fall season, migrants are still on the move into early winter, especially in Southern California. At this time of season, however, “pure” transients are scarce. Two migrant Nashville warblers (*Oreothlypis ruficapilla*) observed in Reach 43a are best considered as transients because they neither summer, nor are they expected to winter at this location. The migrant black-throated gray warblers (*Setophaga nigrecens*) found in Reaches 43a and 43b may also be transients, as they do not summer at this location, but small numbers regularly winter here.

The post-clearing surveys produced a total of 12 migrant species of 144 individuals at Reaches 43a and 43b that only winter at these locations. The Reach 43a total included the following eight species: sharp-shinned hawk (*Accipiter striatus*), northern flicker (*Colaptes auratus*), ruby-crowned kinglet (*Regulus calendula*), hermit thrush (*Catharus guttatus*), American pipit (*Anthus rubescens*), orange-crowned warbler (*Oreothlypis celata*), yellow-rumped warbler (*Setophaga coronata*), and white-crowned sparrow (*Zonotrichia leucophrys*). Migrants at Reach 43b included the following six species: American wigeon (*Anas americana*), northern pintail (*Anas acuta*), green-winged teal (*Anas crecca*), spotted sandpiper, yellow-rumped warbler (*Dendroica coronata*), and white-crowned sparrow.

4.0 VEGETATION TRANSECTS

BonTerra Psomas biologists quantitatively assessed the percent cover of the vegetation within each of the SBC reaches. The quantification was accomplished by selecting transect locations that were correlated to the maps that depicted Manning's or hydraulic roughness coefficient values (n values) developed by LACFCD hydrologists for the reaches. Transects were conducted before and after LACFCD's annual fall season maintenance activities. Each transect was conducted perpendicular to the flow of water (i.e., across the width of each reach). Global Positioning System (GPS) points were taken at both the beginning and ending locations for each transect. The start point of each transect was generally located at the top of the bank to the right when facing upstream. For SBC reaches that had flowing water and where the water was too deep to cross, the transect was broken up into three segments: A, B, and C. The A and B segments had GPS points taken at both the beginning and ending locations of the segment, with the starting point of each segment at the water's edge in the middle of the channel then working out to the top of the bank. The A segment was to the left when facing upstream, and the B segment was to the right when facing upstream. Segment C, the width of the open water (i.e., the span of the channel that was too deep to cross), was calculated to be the distance between the starting GPS points of Segments A and B across the water.

The point-intercept method at one-foot intervals along each transect was used to collect data. Except for sites with high diversity of plant species, the results of the line-intercept method do not differ significantly from the point-intercept method. Since the point-intercept method is less time consuming and since flood-control channels generally support relatively low diversity, the line-intercept method was selected as the most appropriate method for the vegetation transects. Table 8 below lists each reach and the distance of each transect. Data included identification and documentation of each plant species and the ground cover that occurred at one-foot intervals along each transect. Data workbooks are included as Appendix E, and the transect locations are shown on the vegetation maps of Appendix A. Non-native grass species were generally compiled together into one non-native grass category. Tree sizes were identified as mature, medium shrub, or seedling. Trees and other plants rooted on upper banks outside the drainage were not included in the data (i.e., the tree canopy of a tree rooted outside the channel was not included²). Photographs were also taken from the starting and ending points of each transect or transect segment.

² Note that this differs from the methods used to map vegetation types of the SBC reaches as tree canopies of trees rooted outside the banks of the channel were used to determine the vegetation type.

**TABLE 8
VEGETATION ANALYSIS TRANSECTS**

| Reach No. | Transect No. | Transect Length (ft) | Reach No. | Transect No. | Transect Length (ft) |
|-----------|--------------|----------------------|-----------|--------------|----------------------|
| 39 | 1 | 50 | 41 | 1 | 420 |
| | 2 | 20 | | 2 | 420 |
| 40a | 1 | 320 | 43a | 3 | 420 |
| | 2 | 380 | | 1 | 890 |
| | 3 | 385 | | 2 | 900 |
| | 4 | 480 | | 3 | 748 |
| | 5 | 500 | 4 | 500 | |
| | 6 | 475 | 43b | 1 | 350 |
| 40b | 1 | 480 | | 2 | 365 |
| | 2 | 480 | 44 | 1 | 375 |
| | 3 | 531 | | 2 | 350 |
| | 4 | 540 | | 3 | 365 |
| | 5 | 480 | | 4 | 365 |
| | 6 | 555 | | 5 | 314 |
| | 7 | 540 | | 6 | 322 |
| | 8 | 525 | | 7 | 342 |
| | 9 | 522 | | 8 | 333 |
| | 10 | 480 | 98 | 1 | 65 |

ft: feet
No transect data was collected for Reach 42 since water covered the entire channel bottom.

4.1 PRE- AND POST-CLEARING VEGETATION TRANSECTS

Transect data was collected at each of the SBC reaches by BonTerra Psomas Senior Biologists Robert Allen, Brian Daniels, and Richard Lewis; Biologists Jeff Crain, Jason Mintzer, Jennifer Pareti and Rebecca Tyra; and Leatherman BioConsulting Senior Botanist Sandra Leatherman. Surveys were completed on August 16, 18, 26, and 29 and September 9, 12, 14, 16, 20, and 21, 2011, prior to the onset of LACFCD annual maintenance activities. These are the “pre-clearing” vegetation transects shown below in Table 9. Note that no transect data was collected at Reach 42 as flowing water covered the entire channel bottom prior to LACFCD clearing activities.

Transect data were also collected (using the same method as for pre-clearing transects) after maintenance activities on November 16, 17, 29, and 30 and December 19 and 20, 2011, by BonTerra Psomas Senior Biologist Mr. Allen, and BonTerra Psomas Biologists Jonathan Aguayo, Lindsay Messett, Mr. Mintzer, Ms. Pareti, and Allison Rudalevige. These transects were conducted at the same locations as the pre-clearing vegetation transects and are shown below in Table 9. Because vegetation clearing occurred for different SBC reaches on different dates, a variable but generally small amount of vegetative re-growth occurred before post-clearing transect data collection was performed. If vegetation clearing did not occur, no post-clearing transect data was collected. Of the nine SBC reaches in this study, vegetation clearing did not occur at Reach 42 and no pre- or post-clearing transect data was collected.

**TABLE 9
TOTAL VEGETATED AND UNVEGETATED PERCENT COVER**

| Reach | Transect | Pre-Vegetation Clearing | | | Post-Vegetation Clearing | | | Vegetation Clearing Effect on Percent Cover (Post-Clearing minus Pre-Clearing) | | |
|-------|----------|-------------------------|--------------|---------------|--------------------------|--------------|---------------|--|--------------|---------------|
| | | % Native | % Non-native | % Unvegetated | % Native | % Non-native | % Unvegetated | % Native | % Non-native | % Unvegetated |
| 39 | 1 | 46.0 | 50.0 | 18.0 | 32.0 | 34.0 | 46.0 | -14.0 | -16.0 | 28.0 |
| | 2 | 10.0 | 75.0 | 25.0 | 20.0 | 60.0 | 35.0 | 10.0 | -15.0 | 10.0 |
| 40a | 1 | 19.4 | 52.5 | 40.6 | 8.4 | 50.9 | 43.5 | -11.0 | -1.6 | 2.9 |
| | 2 | 61.1 | 21.1 | 30.3 | 20.6 | 38.3 | 50.9 | -40.5 | 17.2 | 20.6 |
| | 3 | 10.4 | 27.1 | 67.6 | 11.2 | 48.7 | 49.7 | 0.8 | 21.6 | -17.9 |
| | 4 | 32.3 | 10.2 | 60.2 | 10.7 | 28.7 | 65.6 | -21.6 | 18.5 | 5.4 |
| | 5 | 21.6 | 17.4 | 62.0 | 9.6 | 29.7 | 66.9 | -12.0 | 12.3 | 4.9 |
| | 6 | 16.0 | 30.5 | 56.4 | 5.7 | 44.5 | 53.6 | -10.3 | 14.0 | -2.8 |
| 40b | 1 | 13.8 | 19.4 | 69.8 | 3.0 | 30.4 | 68.2 | -10.8 | 11.0 | -1.6 |
| | 2 | 1.9 | 79.2 | 20.8 | 1.0 | 62.9 | 37.1 | -0.9 | -16.3 | 16.3 |
| | 3 | 2.4 | 36.2 | 63.3 | 0.0 | 32.5 | 67.1 | -2.4 | -3.7 | 3.8 |
| | 4 | 8.3 | 11.7 | 82.0 | 0.1 | 14.0 | 85.4 | -8.2 | 2.3 | 3.4 |
| | 5 | 15.8 | 52.3 | 42.3 | 3.9 | 23.0 | 74.9 | -11.9 | -29.3 | 32.6 |
| | 6 | 42.0 | 28.8 | 45.9 | 21.2 | 18.6 | 66.9 | -20.8 | -10.2 | 21.0 |
| | 7 | 29.1 | 32.0 | 52.6 | 0.0 | 6.8 | 93.0 | -29.1 | -25.2 | 40.4 |
| | 8 | 20.2 | 48.0 | 47.0 | 2.7 | 31.2 | 67.6 | -17.5 | -16.8 | 20.6 |
| | 9 | 36.6 | 20.5 | 44.4 | 22.1 | 24.1 | 60.7 | -14.5 | 3.6 | 16.3 |
| | 10 | 38.1 | 34.4 | 49.0 | 8.7 | 39.8 | 59.4 | -29.4 | 5.4 | 10.4 |
| 41 | 1 | 14.5 | 44.0 | 50.0 | 1.4 | 20.0 | 55.7 | -13.1 | -24.0 | 5.7 |
| | 2 | 10.0 | 26.0 | 66.2 | 2.6 | 37.4 | 60.5 | -7.4 | 11.4 | -5.7 |
| | 3 | 9.0 | 60.2 | 39.3 | 0.0 | 53.1 | 46.7 | -9.0 | -7.1 | 7.4 |
| 43a | 1 | 30.0 | 66.4 | 22.7 | 39.1 | 32.0 | 45.0 | 9.1 | -34.4 | 22.3 |
| | 2 | 36.2 | 54.0 | 32.8 | 32.0 | 44.7 | 30.7 | -4.2 | -9.3 | -2.1 |
| | 3 | 35.4 | 62.2 | 20.7 | 24.2 | 39.7 | 41.4 | -11.2 | -22.5 | 20.7 |
| | 4 | 9.0 | 70.4 | 25.4 | 15.6 | 39.2 | 46.3 | 6.6 | -31.2 | 20.9 |
| 43b | 1 | 18.3 | 67.7 | 25.7 | 13.6 | 66.1 | 26.1 | -4.7 | -1.6 | 0.4 |
| | 2 | 28.5 | 57.3 | 21.9 | 17.5 | 42.6 | 43.0 | -11.0 | -14.7 | 21.1 |

**TABLE 9
TOTAL VEGETATED AND UNVEGETATED PERCENT COVER**

| Reach | Transect | Pre-Vegetation Clearing | | | Post-Vegetation Clearing | | | Vegetation Clearing Effect on Percent Cover (Post-Clearing minus Pre-Clearing) | | |
|----------------|----------|-------------------------|--------------|---------------|--------------------------|--------------|---------------|--|--------------|---------------|
| | | % Native | % Non-native | % Unvegetated | % Native | % Non-native | % Unvegetated | % Native | % Non-native | % Unvegetated |
| 44 | 1 | 49.6 | 41.1 | 38.1 | 31.1 | 45.5 | 34.6 | -18.5 | 4.4 | -3.5 |
| | 2 | 14.0 | 38.3 | 54.9 | 18.8 | 28.2 | 61.2 | 4.8 | -10.1 | 6.3 |
| | 3 | 12.3 | 68.8 | 29.0 | 0.1 | 49.2 | 50.3 | -12.2 | -19.6 | 21.3 |
| | 4 | 3.3 | 32.9 | 67.1 | 0.0 | 12.3 | 87.7 | -3.3 | -20.6 | 20.6 |
| | 5 | 27.4 | 64.0 | 33.1 | 0.0 | 43.0 | 57.0 | -27.4 | -21.0 | 23.9 |
| | 6 | 9.3 | 55.6 | 37.9 | 0.3 | 47.7 | 52.0 | -9.0 | -7.9 | 14.1 |
| | 7 | 17.3 | 38.9 | 52.3 | 2.3 | 28.7 | 69.9 | -15.0 | -10.2 | 17.6 |
| | 8 | 36.9 | 45.3 | 26.4 | 22.8 | 36.6 | 46.5 | -14.1 | -8.7 | 20.1 |
| 98 | 1 | 21.5 | 80.0 | 18.5 | 10.8 | 24.6 | 64.6 | -10.7 | -55.4 | 46.1 |
| Average | | 22.4 | 45.0 | 42.8 | 11.5 | 36.4 | 55.9 | -11.0 | -8.1 | 13.1 |

Table 9 shows the results of the pre- and post-clearing transects of percent cover of native vegetation, non-native vegetation, and unvegetated areas for each of the nine SBC reaches in this study. Data in Table 9 also summarize the net changes in percent cover between pre- and post-clearing transects to measure the effect of vegetation clearing on percent cover relative to native vegetation, non-native vegetation, and unvegetated areas. The combined totals of 36 pre- and post-clearing vegetation transects on Table 9 for the SBC reaches show an average net loss of 11.0 percent cover and 8.1 percent cover for native and non-native vegetation, respectively, and an average net gain of 13.1 percent cover for unvegetated areas following the 2011 clearing activities conducted by the LACFCD.

The post-clearing transects were conducted in November and December 2011, about two months on average after completion of the LACFCD’s annual fall clearing activities. Post-clearing transects performed immediately after clearing activities at each of these SBC reaches would have produced higher percentages of unvegetated areas. Regrowth is rapid, however, for most SBC reaches as winter rains generally occur not long after completion of the fall clearing activities.

5.0 CALIFORNIA RAPID ASSESSMENT METHOD ANALYSIS

5.1 METHODS/INTRODUCTION

The California Rapid Assessment Method (CRAM) is a wetland monitoring tool that is designed to quickly evaluate the overall condition of a wetland and to identify stressors that affect its condition. CRAM scores result from the evaluation of four equally weighted attributes: (1) buffer and landscape context; (2) hydrology; (3) physical structure; and (4) biotic structure (CWMW 2012). A summary of the ten metrics and six sub-metrics that comprise these attributes is provided in Table 10.

**TABLE 10
DESCRIPTION OF CRAM ATTRIBUTES AND METRICS**

| Attribute | Metric | Description | |
|------------------------------|-------------------------------|--|--|
| Buffer and Landscape Context | Landscape Connectivity | Measures connectivity along the riparian corridor for wildlife movement; non-buffer land types are identified 500 meters upstream and downstream of Assessment Area. | |
| | Buffer Condition | Combination of the three sub-metric scores described below. | |
| | Sub-metrics | Percent of Assessment Area with Buffer | Measures percentage of Assessment Area perimeter that contains land cover types that provide a buffer. |
| | | Average Buffer Width | Measures the average width of identified buffer land types around Assessment Area. |
| | Buffer Condition | Qualitatively evaluates buffer condition . | |
| Hydrology | Water Source | Qualitatively evaluates impacts to the extent, duration, and frequency of saturated or ponded conditions . | |
| | Hydroperiod/Channel Stability | Qualitatively evaluates channel equilibrium, degradation, or aggradation. | |
| | Hydrologic Connectivity | Measures the entrenchment of the channel to determine the ability for water to inundate adjacent upland areas. | |

**TABLE 10
DESCRIPTION OF CRAM ATTRIBUTES AND METRICS**

| Attribute | Metric | Description | |
|---------------------------|---|--|--|
| Physical Structure | Structural Patch Richness | Measures the diversity of physical riparian features that may potentially provide habitat for aquatic species (e.g., vegetated islands, pools, riffles). | |
| | Topographic Complexity | Qualitatively evaluates the variety of elevations (i.e. micro-topographic heterogeneity). | |
| Biotic Structure | Plant Community | Average of the three sub-metric scores described below. | |
| | Sub-metrics | Number of Plant Layers | Identifies of number of plant strata. |
| | | Number of Co-dominant Species | Identifies the number of co-dominant plant species based on visual estimation. |
| | | Percent Invasive Species | Measures the percent of invasive plant species among the co-dominant species identified above. |
| | Horizontal Interspersion | Qualitatively evaluates the variety and distribution of plant associations. | |
| Vertical Biotic Structure | Identifies the number and distribution of plant strata. | | |

Source: CWMW 2012.

In 2006, the U.S. Environmental Protection Agency recommended a framework for comprehensive wetland monitoring to help States meet the requirements described in the Clean Water Act. This framework consists of the following three-tiered approach (USEPA 2006):

- **Level 1 Assessments:** Map-based inventories of wetland resources.
- **Level 2 Assessments:** Evaluation of general the wetland condition using relatively simple field indicators.
- **Level 3 Assessments:** Collection of quantitative data about selected functions or beneficial uses of wetlands.

CRAM is designed as a Level 2 Assessment tool that provides scientifically defensible, standardized data on the trends and condition of wetlands as well as stressors that affect wetlands (CWMW 2012). The ten metrics (and six sub-metrics) used in CRAM evaluations are derived from Level 3 studies that are designed to show relationships between the ecological functions of the wetlands and anthropogenic stress. Stein et al (2009) tested the validity of the CRAM approach by correlating CRAM scores to existing monitoring and assessment data on avian diversity, benthic macroinvertebrate indices, and plant community composition. The results of this analysis indicate that rapid assessment methods, including CRAM, can provide a meaningful and reliable tool for assessing wetland condition.

Each of the CRAM metrics is given a score of A (12 points), B (9 points), C (6 points), or D (3 points). CRAM scores for each of the four attributes range from 25 to 100. The four attribute scores are then averaged to determine the final CRAM score for a site. The final score is a relative measurement to indicate how an individual site compares to the best achievable conditions. For context, personnel associated with the Southern California Coastal Water Research Project (SCCWRP 2014) performed CRAM evaluations throughout the San Gabriel River Watershed. The highest score in this study was 91, recorded in areas of the upper San Gabriel River Watershed, while the lowest score was 35, recorded in the channelized mainstem of the river.

BonTerra Psomas Regulatory Specialist David Hughes visited each of the nine channel reaches in this feasibility study to perform the CRAM evaluation. Prior to visiting each channel reach, one or more Assessment Areas (AA) were identified on aerial photographs, consistent with CRAM guidelines. The AA is the CRAM study area for each channel reach; the number of AAs is dependent on the size of the area to be assessed and the variability of conditions. Generally, the minimum length of an AA is 100 meters; however, two of the channel reaches analyzed for this study were less than 100 meters in length (i.e., channel reaches 39 and 98). For these channel reaches, the AA was shortened to the total length of each channel because areas outside the boundaries of the channel reach were not consistent with conditions in the reach (e.g., considering an adjacent concrete-lined channel would lower the overall score).

Field investigation at all of the channel reaches consisted of performing channel measurements, visually estimating conditions, and identifying features on standardized checklists to determine scores for the following metrics and sub-metrics: buffer condition, hydroperiod/channel stability, hydrologic connectivity, structural patch richness, topographic complexity, number of plant layers, number of co-dominant species, percent invasive species, horizontal interspersions, and vertical biotic structure. The following metrics were initially analyzed in the office via aerial photo analysis with results confirmed or adjusted in the field: landscape connectivity, percent of AA with buffer, average buffer width, and water source.

As noted above, CRAM scores can range from a minimum score of 25 to a maximum score of 100. This range of scores can be split into five equal ranges that allow for categorization of ecological functioning, as summarized in Table 11. This categorization is not described in the CRAM User's Manual, but it is provided herein for the purpose of broadly categorizing each reach.

**TABLE 11
CALIFORNIA RAPID ASSESSMENT METHOD FUNCTIONAL RATINGS**

| CRAM Score | Functional Rating |
|--|-------------------|
| 85.0–100.0 | Very High |
| 70.0–84.9 | High |
| 55.0–69.9 | Moderate |
| 40.0–54.9 | Low |
| 25.0–39.9 | Very Low |
| CRAM: California Rapid Assessment Method | |

5.2 RESULTS

A total of 16 AAs were established in the nine channel reaches. Generally, the number of AAs utilized was dependent on the length of the channel reach and the uniformity of the conditions (i.e., channels with heterogeneous conditions had more AAs). The number of AAs utilized in each channel reach and the results of the evaluation are summarized in Table 12 with a further breakdown of attribute scores in Table 13. Scores for the various AAs largely fell within the “moderate” and “low” functional rating categories. The highest CRAM score (68.1) is associated with the downstream end of Reach 40b which contains relatively large amounts of protected vegetation (i.e., vegetation not cleared annually) compared to other channel reaches. The lowest score (29.9) is associated with Reach 42 that contains minimal protected vegetation. The CRAM raw scores for each AA are provided in Appendix F. A summary of field conditions that determined the CRAM scores for each attribute is provided below.

**TABLE 12
SUMMARY OF CALIFORNIA RAPID ASSESSMENT METHOD RESULTS**

| Reach No. | Linear Feet | Number of Assessment Areas | Range of Final Scores | Average Score | Functional Rating |
|-----------|-------------|----------------------------|-----------------------|---------------|-------------------|
| 39 | 145 | 1 | – | 38.4 | Low |
| 40a | 22,582 | 3 | 40.2–61.8 | 53.3 | Low |
| 40b | 8,788 | 3 | 58.0–68.1 | 61.3 | Moderate |
| 41 | 5,438 | 1 | – | 55.1 | Moderate |
| 42 | 800 | 1 | – | 29.9 | Very Low |
| 43a | 3,066 | 1 | – | 54.7 | Low |
| 43b | 3,434 | 1 | – | 60.8 | Moderate |
| 44 | 31,900 | 4 | 50.7–65.6 | 56.9 | Moderate |
| 98 | 80 | 1 | – | 44.7 | Low |

**TABLE 13
SUMMARY OF CALIFORNIA RAPID ASSESSMENT
METHOD ATTRIBUTE SCORES**

| Channel Reach No. | CRAM Attributes | | | | Final Score ^a |
|-------------------|------------------------------|-----------|--------------------|------------------|--------------------------|
| | Buffer and Landscape Context | Hydrology | Physical Structure | Biotic Structure | |
| 39 | 45.4 | 33.3 | 25.0 | 50.0 | 38.4 |
| 40a | 56.6 | 63.9 | 50.0 | 42.6 | 53.3 ^b |
| 40b | 75.0 | 66.7 | 41.7 | 62.0 | 61.3 ^b |
| 41 | 67.7 | 50.0 | 50.0 | 52.8 | 55.1 |
| 42 | 25.0 | 33.3 | 25.0 | 36.1 | 29.9 |
| 43a | 42.2 | 75.0 | 37.5 | 63.9 | 54.7 |
| 43b | 80.6 | 83.3 | 37.5 | 41.7 | 60.8 |
| 44 | 73.4 | 70.8 | 37.5 | 45.8 | 56.9 ^b |
| 98 | 27.4 | 58.3 | 37.5 | 55.6 | 44.7 |

CRAM: California Rapid Assessment Method

^a Final score is calculated as the average of the four attribute scores

^b More than one Assessment Area was utilized for these channel reaches, the final score reflects the average score of the Assessment Areas.

5.2.1 Buffer and Landscape Context Attribute

The various reaches generally scored well for the “Aquatic Area Abundance” metric (previously Landscape Connectivity). Though most of the AAs within the San Gabriel River were affected by drop structures and roadway overpasses, the effect was generally small, and most AAs received the maximum score. Areas that scored poorly for this metric were in Reaches 39, 42, and 98 as they were located adjacent to concrete channels that severely limited the connectivity of the reaches. The uppermost AA in Reach 40a also received a minimum score as it was located just downstream of Santa Fe Dam, which severely limits wildlife movement in this area. The AAs generally received maximum scores for the “Percent of AA with Buffer” sub-metric since buffering land types were generally located adjacent to the reaches. However, in some cases the AA was wide enough to reach the base of the riprap side levees in the San Gabriel River, which either reduced or eliminated a buffer land type. Buffers tend to be quite narrow and contain either an

intermediate or substantial amount of non-native vegetation. As a result, the “Average Buffer Width” and “Buffer Condition” sub-metrics generally received scores of ‘C’ or ‘D’.

5.2.2 Hydrology Attribute

All of the AAs received a score of ‘C’ for the “Water Source” metric since urban runoff, managed hydrology, and the presence of developed land occur in more than 20 percent of the drainage basin for all reaches. The “Channel Stability” and “Hydrologic Connectivity” metrics received scores that varied significantly. For “Channel Stability,” most of the AAs received a score of ‘A’ or ‘B’ since little or no sign of degradation (net loss of sediment through scour) or aggradation (net increase of sediment) was observed. This is presumably due to the presence of drop structures and dams that have moderated water flow rates and sediment transport through the San Gabriel River. In fact, after reviewing historical aerial photos of the San Gabriel River, the thalweg (lowest point in the channel) appears to have changed very little over time (in a natural system, the low flow channel would likely migrate within the overall flood plain). Exceptions to this trend exist in Reaches 39 and 42, since these channels have been artificially hardened resulting in a score of ‘D’.

“Hydrologic Connectivity” (measuring the entrenchment of the channel) also varied significantly. The reaches that were artificially hardened (e.g., Reaches 39 and 42) received a score of ‘D’, while the level of entrenchment varied almost randomly within the larger channels.

5.2.3 Physical Structure Attribute

The “Structural Patch Richness” and “Topographic Complexity” metrics that comprise this attribute generally received scores of ‘C’ or ‘D’. This is a direct result of the managed hydrology within these systems. Structural patches that were commonly observed in the various AAs include presence of cobble or boulders, debris jams, channel bars, and planar streambeds. Only a few of the AAs (all located within Reach 40b) had enough of these patches to receive a score of ‘C’; generally a score ‘D’ was given to the various AAs. Similarly, scores for topographic complexity were very uniform as most AAs had a bank consisting of a single bench. No benches were observed in Reaches 39 and 42 since the banks in these areas have been artificially hardened; as such, these areas each received a ‘D’ score.

5.2.4 Biotic Structure Attribute

Generally, the scores for this attribute did not vary widely among the various reaches; variations that were observed are due to the supply of water that is available to the different channels and the degree of vegetation management that occurs. Most AAs received high scores of either ‘A’ or ‘B’ for the “Number of Plant Layers” sub-metric as three or four plant layers were generally present. However, this sub-metric can be deceptive as a plant layer only needs to occur within five percent of the AA to be counted. Though three or four plant layers were generally observed, many of the reaches had poor native plant coverage overall. This is illustrated by the poor scores (either ‘C’ or ‘D’ in almost all of the AAs) for the “Vertical Biotic Structure” metric, which assesses the degree of overlap between the various plant layers.

The “Number of Co-dominant Species” sub-metric also generally received low scores (either a ‘C’ or ‘D’) as none of the AAs utilized had more than seven co-dominant species. The “Percent of Invasive Species” sub-metric received somewhat higher scores, though they varied from ‘A’ to ‘C’. This variation is due, not so much from the number of invasive species that were observed (no more than two invasive species were observed within any of the AAs), but instead due to the ratio of native to non-native co-dominant species. In other words, AAs that had more native co-dominant species received a higher score for this sub-metric though the number of invasive species did not vary significantly among the reaches.

The “Horizontal Interspersion” metric (also referred to as the “Plant Zonation” metric) received low scores, either ‘C’ or ‘D’, as plant zonation was fairly uniform in each of the AAs. This is presumably a direct result of ongoing vegetation management in these reaches.

It is worth noting that flood-control channel maintenance activities would be expected to only have an effect on the “Biotic Structure” Attribute. Trimming or removal of vegetation would be expected to reduce scores for the “Vertical Biotic Structure” and “Horizontal Interspersion” metrics, though these received low scores during the CRAM evaluation. Though vegetation management would also affect the amount of vegetation in these reaches, it is unclear if the overall scores for the three plant community sub-metrics (“Number of Plant Layers,” “Number of Co-dominant Species,” “Percent Invasive Species”) would be lowered as the thresholds for plants to be included in these categories is rather low (a plant layer is counted if it occurs on at least five percent of the AA; a species is considered co-dominant if it comprises ten percent of that plant layer).

5.2.5 Stressors

Several stressors are associated with each of the reaches in this study. A summary of these stressors is provided below in Table 14. The most common stressors include the presence of development in the general vicinity of the reaches (both residential and industrial), unnatural inflows, point source discharges (storm water outlets into the channels), and the location of the reaches in engineered channels. Other stressors are associated with the maintenance activities in the reaches, such as vegetation management, removal of woody debris, and treatment of non-native plants.

**TABLE 14
SUMMARY OF STRESSORS ASSOCIATED WITH EACH REACH**

| Stressors | Reaches | | | | | | |
|---|---------|----|----|----|----|----|----|
| | 39 | 40 | 41 | 42 | 43 | 44 | 98 |
| Buffer and Landscape Context Attribute | | | | | | | |
| urban residential | | | x | X | x | x | x |
| industrial/commercial | x | x | x | X | x | x | |
| dams/flow disruption | | x | | | x | x | |
| orchards/nurseries | | x | | | | | |
| ranching | | x | | | | | |
| sports fields/parks | | | | | x | | |
| passive recreation | x | x | | | | | |
| Hydrology Attribute | | | | | | | |
| point source discharge | | x | x | | x | x | |
| non-point source discharge | | | | | | | x |
| unnatural inflows | | x | x | | x | x | |
| drop structures | | x | | | x | x | |
| engineered channel | x | x | | X | x | x | x |
| actively managed hydrology | | x | | | | x | |
| Physical Structure Attribute | | | | | | | |
| vegetation management | x | x | x | X | x | x | x |
| trash | | x | | | | | |
| Biotic Structure Attribute | | | | | | | |
| removal of woody debris | x | x | x | X | x | x | x |
| treatment of non-native plants | x | x | x | X | x | x | x |

6.0 RECOMMENDATIONS

In order to provide the LACFCD with recommendations for allowing additional vegetation in those SBC reaches identified by the hydraulic analysis as having sufficient flood-control capacity to allow such vegetation, BonTerra Psomas developed biological value rankings for all nine SBC reaches. The biological value rankings are a synthesis of results from all biological surveys conducted for this Report, including the CRAM analysis. The results are presented below in Tables 15 and 16.

**TABLE 15
SUMMARY OF BIOLOGICAL VALUES**

| Reach Number | Native Vegetation Types ^a | Special Status Plants | Special Status Wildlife ^b | Summer (Breeding) Birds ^c | Transects - Native Vegetation ^d | CRAM Results ^e | Final Score |
|--------------|--------------------------------------|-----------------------|--------------------------------------|--------------------------------------|--|---------------------------|-------------|
| 39 | 1.0 | - | 1.5 | 1.5 | - | 0.5 | 4.5 |
| 40a | 1.0 | - | - | - | 0.5 | 1.0 | 2.5 |
| 40b | 1.0 | - | 1.0 | 0.5 | - | 1.0 | 3.5 |
| 41 | 1.0 | - | - | 0.5 | - | 1.0 | 2.5 |
| 42 | 1.0 | - | - | - | - | 0.5 | 1.5 |
| 43a | 1.0 | - | 1.0 | 1.5 | 0.5 | 1.0 | 5.0 |
| 43b | 1.0 | - | 0.5 | 1.5 | - | 1.0 | 4.0 |
| 44 | 1.0 | - | - | 1.5 | - | 1.0 | 3.5 |
| 98 | 1.0 | - | - | 0.5 | - | 0.5 | 2.0 |

^a A score of 1 was assigned if a native vegetation type was present in the reach; score was reduced by one-half if the native vegetation type was identified as disturbed (see Table 2).

^b A score of 1 was assigned if a Threatened or Endangered species has occupied the reach during focused surveys (see Table 4); if a reach has potential for a Threatened and Endangered species from another taxonomic group, such as Reach 39 that has potential for the Santa Ana sucker in addition to two species of birds (southwestern willow flycatcher and least Bell's vireo), an additional half-point was assigned to this column score. Note that the score for Reach 43b was reduced to a half-point since least Bell's vireo breeding has not yet been documented for this channel reach.

^c A score of 1 was assigned to this column if a California Bird Species of Special Concern was located in the reach during the summer breeding bird surveys (see Table 5); an additional half-point was assigned to this column score if one or more species on the Los Angeles County Bird Watchlist was present during the summer breeding bird surveys (see Table 5).

^d A score of 1 was assigned if the pre-clearing transects produced greater than 50% native vegetation on average for the reach; a half-point was assigned to this column score if the native vegetation averaged more than 25% but less than 50% for the reach.

^e A score of 1 was assigned to the six reaches with highest CRAM scores (greater than 50); a score of one-half was assigned to the three reaches with the lowest CRAM scores (less than 50).

TABLE 16
BIOLOGICAL VALUE SCORES RANKED HIGH TO LOW

| Reach Number | Native Vegetation Types | Special Status Plants | Special Status Wildlife | Summer (Breeding) Birds | Transects Native Vegetation | CRAM Results | Final Score ^a |
|--------------|-------------------------|-----------------------|-------------------------|-------------------------|-----------------------------|--------------|--------------------------|
| 43a | 1.0 | - | 1.0 | 1.5 | 0.5 | 1.0 | 5.0 |
| 39 | 1.0 | - | 1.5 | 1.5 | - | 0.5 | 4.5 |
| 43b | 1.0 | - | 0.5 | 1.5 | - | 1.0 | 4.0 |
| 40b | 1.0 | - | 1.0 | 0.5 | - | 1.0 | 3.5 |
| 44 | 1.0 | - | - | 1.5 | - | 1.0 | 3.5 |
| 40a | 1.0 | - | - | - | 0.5 | 1.0 | 2.5 |
| 41 | 1.0 | - | - | 0.5 | - | 1.0 | 2.5 |
| 98 | 1.0 | - | - | 1.5 | - | 0.5 | 2.0 |
| 42 | 1.0 | - | - | - | - | 0.5 | 1.5 |

^a Final scores of equal value were sorted from high to low based on their final CRAM score (see Table 14). For example, Reaches 2 and 96 have equal biological value scores of 5, but Reach 2 was ranked higher than Reach 5 as it had a final CRAM score of 60.9 compared to 52.8 for Reach 96.

Except for Reach 39, Table 16 shows a correlation between higher CRAM scores and higher Biological Value scores. Unlike the other SBC reaches in this study, Reach 39 is a side outlet situated within a larger flood control channel³ that supports similar vegetation types. As a result, the combined areas provide suitable habitat for ecological specialists such as the least Bell's vireo, which provides more biological value to Reach 39 even though it scored poorly with CRAM.

As noted in the Hydraulic Analysis Technical Assessment Report prepared by the LACFCD, SBC reaches 39, 40a, 40b, 42, and 98 were found to lack sufficient hydraulic capacity to support additional vegetation. No recommendations for additional vegetation were therefore made for these five SBC reaches. The LACFCD requested that BonTerra Psomas develop recommendations for the remaining four SBC reaches (41, 43a, 43b, and 44). The recommendations for additional vegetation in these SBC Reaches, following review by LACFCD channel maintenance personnel, are provided in paragraph form below. Additionally, these recommendations are provided in conjunction with the vegetation map for each SBC reach in Exhibit 1 below. Note that reaches are presented in sequential order.

Reach 41, Walnut Creek. Allow 15 willow saplings to mature on left edge of low-flow channel, within the 1.6-acre additional vegetation area. This additional vegetation area is located from UTM coordinates (NAD 83) 11N 408563 mE, 3769493 mN (upstream limit) to 11N 408183 mE, 3769424 mN (downstream limit). All additional vegetation recommended for this channel reach will be subject to maintenance practices allowed under existing permits (e.g. the "lollipopping" of individual trees, and the removal of invasive species) (See Exhibit 1a).

Reach 43a, San Gabriel River (Upper). Allow willow riparian forest vegetation to mature within the low-lying, 0.45-acre additional vegetation area. This additional vegetation area is located from UTM coordinates (NAD 83) 11N 402561 mE, 3764805 mN (upstream limit) to 11N 402530 mN, 3764770 mE (downstream limit). All additional vegetation recommended for this channel reach will be subject to maintenance practices allowed under existing permits (e.g. the "lollipopping" of individual trees, and the removal of invasive species) (See Exhibit 1b).

³ Except for Beatty Channel Outlet (Reach 39), the U.S. Army Corps of Engineers manages the San Gabriel River flood control channel at this location.

Reach 43b, San Gabriel River (Lower). Allow 20 willow saplings to mature on left edge of low flow channel, within the 1-acre additional vegetation area. This is intended to facilitate connectivity between adjacent willow riparian forest habitats. This additional vegetation area is located from UTM coordinates (NAD 83) 11N 401657 mE, 3763894 mN (upstream limit) to 11N 401406 mN, 3763543 mN (downstream limit). All additional vegetation recommended for this channel reach will be subject to maintenance practices allowed under existing permits (e.g. the “lollipopping” of individual trees, and the removal of invasive species) (See Exhibit 1c).

Reach 44, San Gabriel River – Rubber Dams (Upper). Allow 50 willow saplings to mature on left edge of low-flow channel between Rubber Dam 3 and Rubber Dam 4, within the 0.8-acre additional vegetation area, but not within 15ft of the toe of the levee. This additional vegetation area is located from UTM coordinates (NAD 83) 11N 399930 mE, 3759912 mN (upstream limit) to 11N 399571 mE, 3759425 mN (downstream limit). All additional vegetation recommended for this channel reach will be subject to maintenance practices allowed under existing permits (e.g. the “lollipopping” of individual trees, and the removal of invasive species) (See Exhibit 1d).

Reach 44, San Gabriel River – Rubber Dams (Middle). Allow 35 willow saplings to mature on left edge of low-flow channel between Rubber Dam 5 and Telegraph Road, within the 1.9-acre additional vegetation area, but not within 15ft of the toe of the levee. This additional vegetation area is located from UTM coordinates (NAD 83) 11N 399229 mE, 3757589 mN (upstream limit) to 11N 398942 mE, 3757213 mN (downstream limit). All additional vegetation recommended for this channel reach will be subject to maintenance practices allowed under existing permits (e.g. the “lollipopping” of individual trees, and the removal of invasive species) (See Exhibit 1e).







Reach 44, San Gabriel River – Rubber Dams (Lower). Allow 100 willow saplings to mature on left edge of low-flow channel between I-5 Freeway and Florence Avenue, within the two additional vegetation areas (1.8-acres total), but not within 15ft of the toe of the levee. The northernmost additional vegetation area is located from UTM coordinates (NAD 83) 11N 398464 mE, 3756469 mN (upstream limit) to 11N 398460 mE, 3756385 mN (downstream limit). The southernmost additional vegetation area is located from UTM coordinates (NAD 83) 11N 398450 mE, 3756323 mN (upstream limit) to 11N 398328 mE, 3755953 mN (downstream limit). All additional vegetation recommended for this channel reach will be subject to maintenance practices allowed under existing permits (e.g. the “lollipopping” of individual trees, and the removal of invasive species) (See Exhibit 1f).

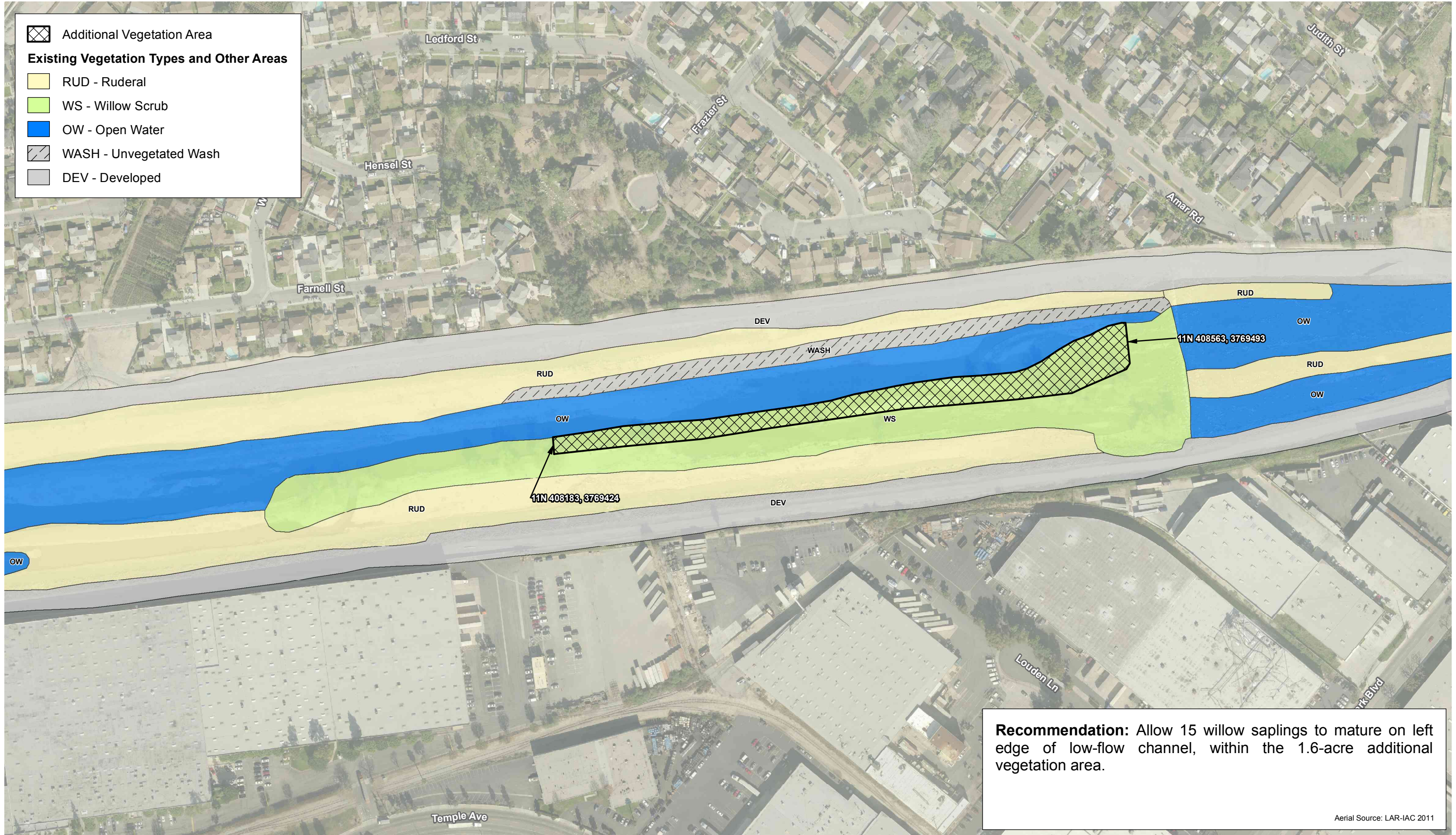
7.0 REFERENCES

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⁴ Although the California Department of Fish and Game (CDFG) changed its name to the California Department of Fish and Wildlife (CDFW) effective January 1, 2013, "CDFG" is still used throughout this document for all documents published or database searches completed before January 1, 2013.

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-  Additional Vegetation Area
- Existing Vegetation Types and Other Areas**
-  RUD - Ruderal
-  WS - Willow Scrub
-  OW - Open Water
-  WASH - Unvegetated Wash
-  DEV - Developed

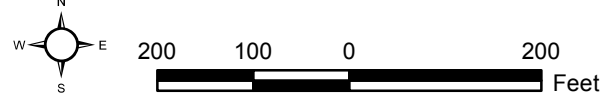


Recommendation: Allow 15 willow saplings to mature on left edge of low-flow channel, within the 1.6-acre additional vegetation area.

Aerial Source: LAR-IAC 2011








Recommendations – Reach 41 (Walnut Creek)

San Gabriel River Watershed Feasibility Study



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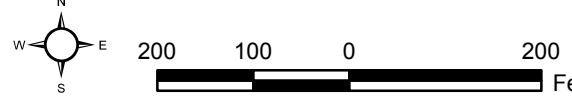
-  Additional Vegetation Area
- Existing Vegetation Types and Other Areas**
-  MFS - Mule Fat Scrub
-  RUD - Ruderal
-  WRF - Willow Riparian Forest
-  OW - Open Water
-  DEV - Developed
-  DIST - Disturbed










Recommendations – Reach 43a (San Gabriel River – Upper)

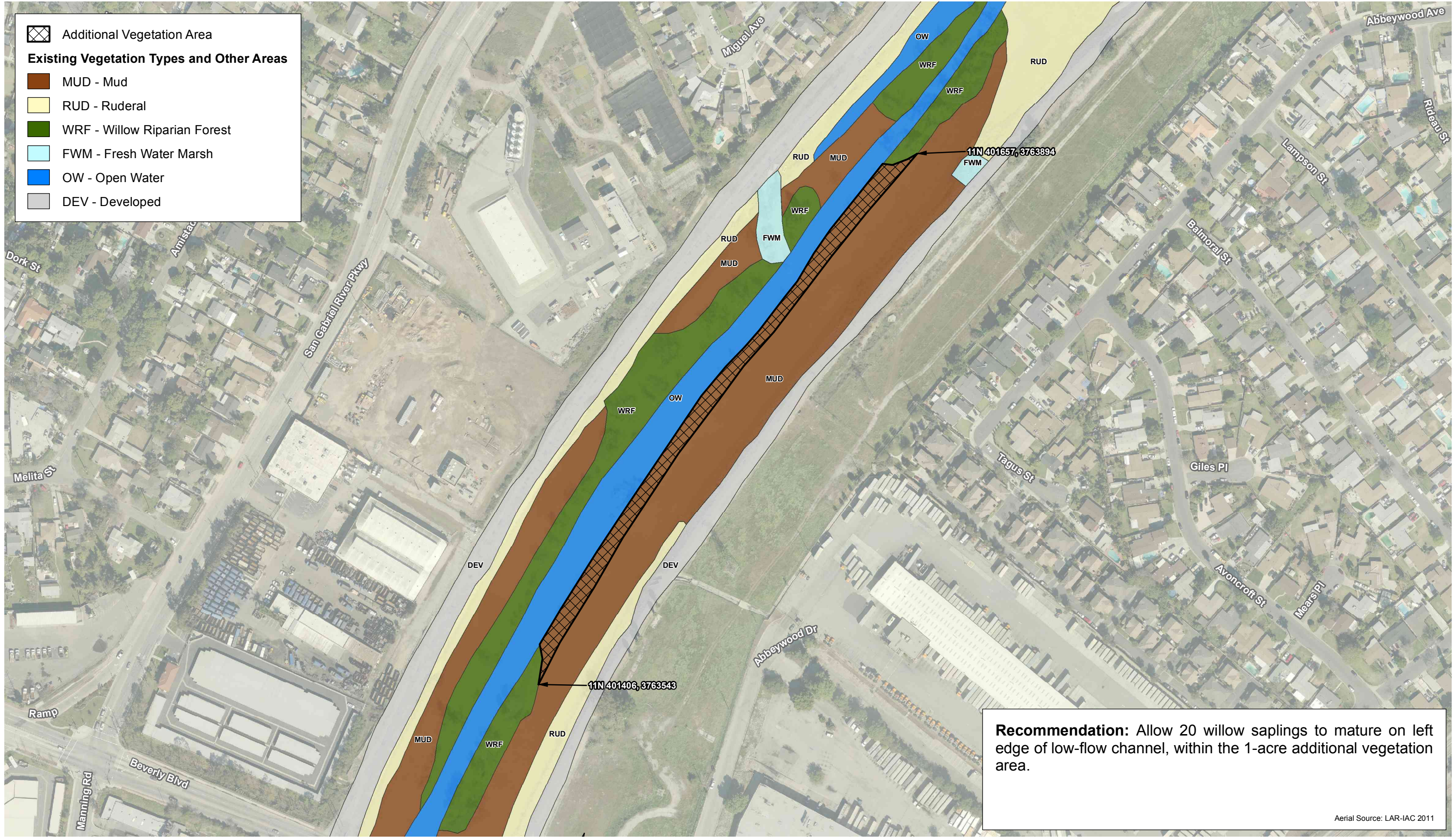
Exhibit 1b

San Gabriel River Watershed Feasibility Study



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 Additional Vegetation Area
Existing Vegetation Types and Other Areas
 MUD - Mud
 RUD - Ruderal
 WRF - Willow Riparian Forest
 FWM - Fresh Water Marsh
 OW - Open Water
 DEV - Developed



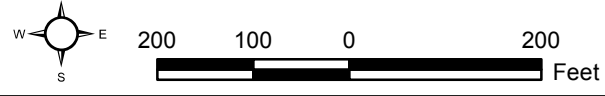
Recommendation: Allow 20 willow saplings to mature on left edge of low-flow channel, within the 1-acre additional vegetation area.

Aerial Source: LAR-IAC 2011

Recommendations – Reach 43b (San Gabriel River – Lower)







Exhibit 1c

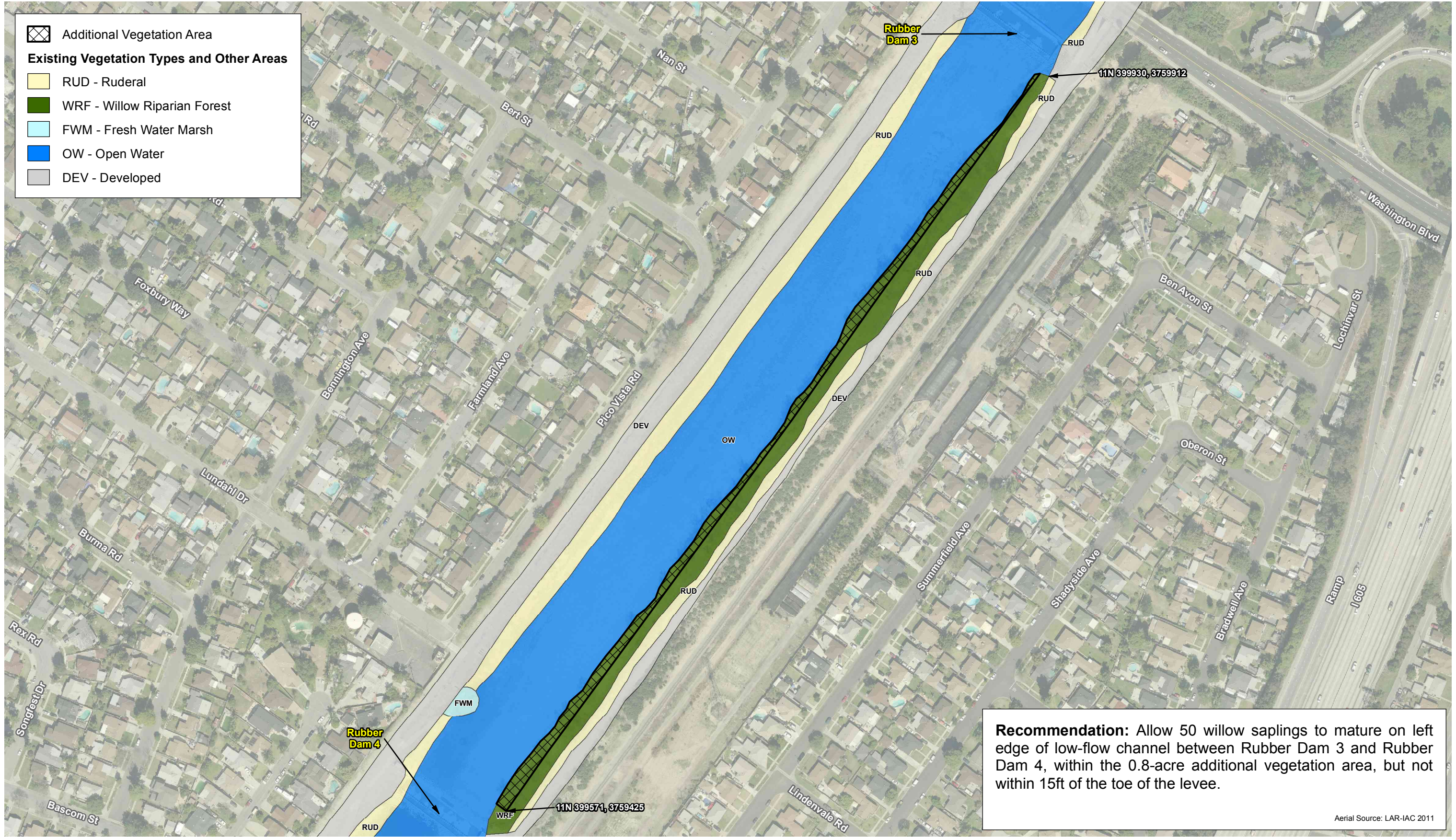
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-  Additional Vegetation Area
- Existing Vegetation Types and Other Areas**
-  RUD - Ruderal
-  WRF - Willow Riparian Forest
-  FWM - Fresh Water Marsh
-  OW - Open Water
-  DEV - Developed



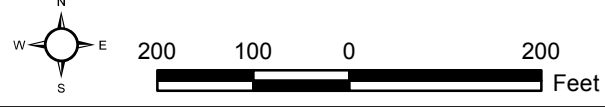
Recommendation: Allow 50 willow saplings to mature on left edge of low-flow channel between Rubber Dam 3 and Rubber Dam 4, within the 0.8-acre additional vegetation area, but not within 15ft of the toe of the levee.

Aerial Source: LAR-IAC 2011








Recommendations – Reach 44 (San Gabriel River – Rubber Dams) (Upper)

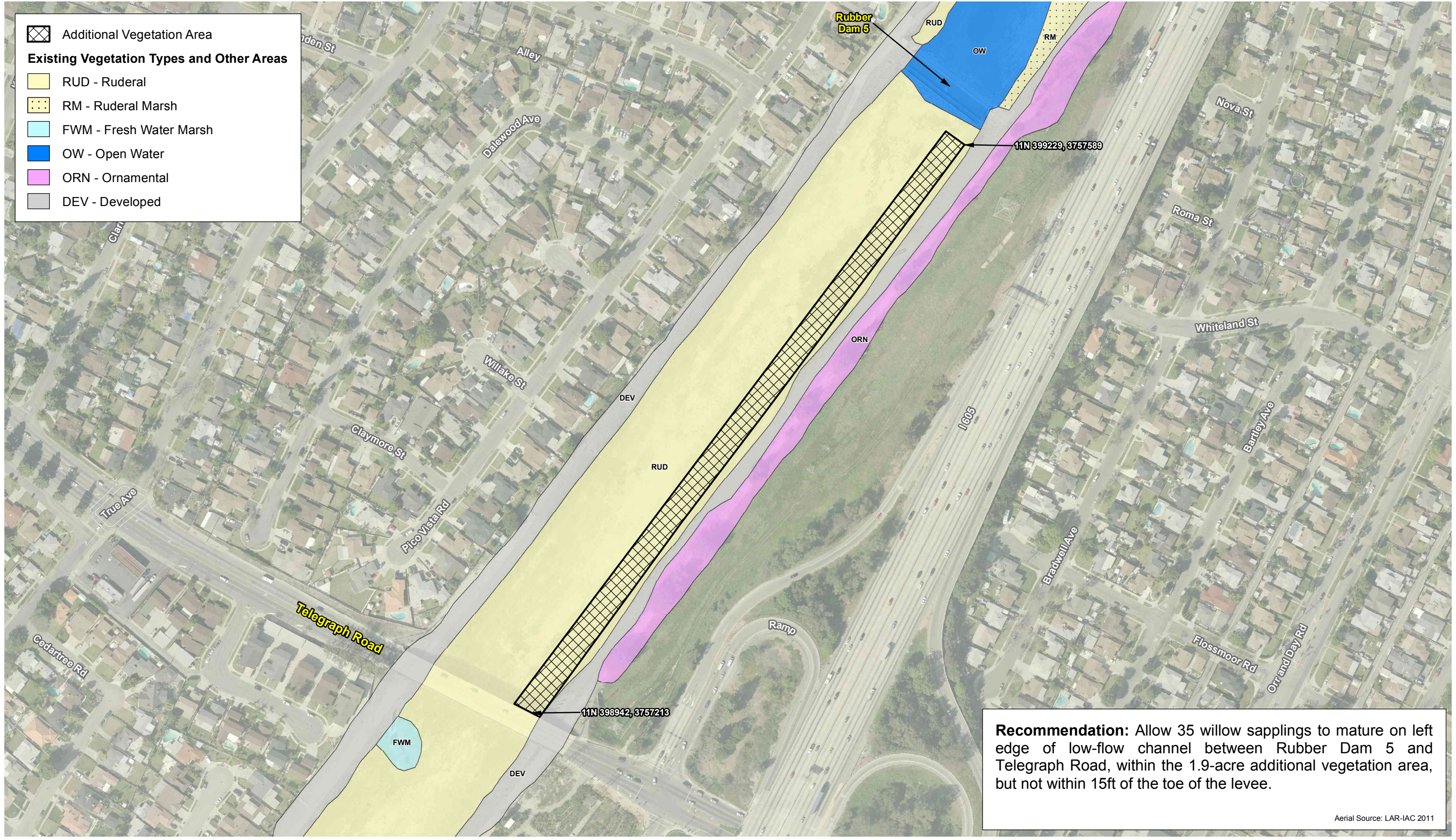
Exhibit 1d

San Gabriel River Watershed Feasibility Study



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 Additional Vegetation Area
Existing Vegetation Types and Other Areas
 RUD - Ruderal
 RM - Ruderal Marsh
 FWM - Fresh Water Marsh
 OW - Open Water
 ORN - Ornamental
 DEV - Developed

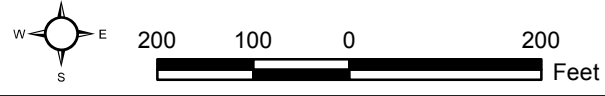


Recommendation: Allow 35 willow sapplings to mature on left edge of low-flow channel between Rubber Dam 5 and Telegraph Road, within the 1.9-acre additional vegetation area, but not within 15ft of the toe of the levee.

Aerial Source: LAR-IAC 2011






Recommendations – Reach 44 (San Gabriel River – Rubber Dams) (Middle)

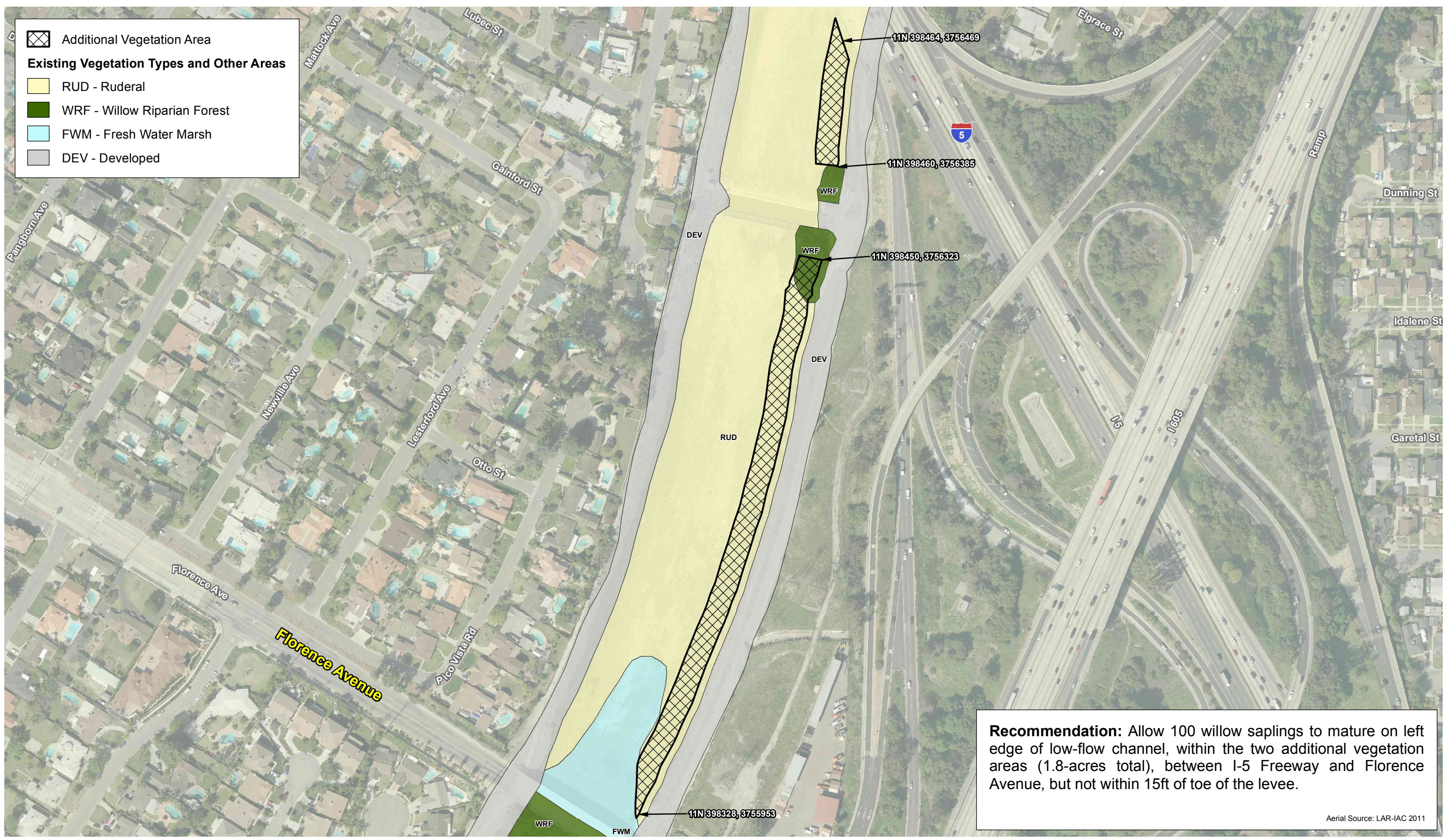
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 Additional Vegetation Area
Existing Vegetation Types and Other Areas
 RUD - Ruderal
 WRF - Willow Riparian Forest
 FWM - Fresh Water Marsh
 DEV - Developed



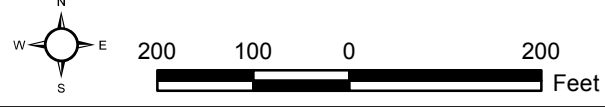
Recommendation: Allow 100 willow saplings to mature on left edge of low-flow channel, within the two additional vegetation areas (1.8-acres total), between I-5 Freeway and Florence Avenue, but not within 15ft of toe of the levee.

Aerial Source: LAR-IAC 2011

Recommendations – Reach 44 (San Gabriel River – Rubber Dams) (Lower)

Exhibit 1f

San Gabriel River Watershed Feasibility Study



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