

[This report is part of the Staff Report – Basin Plan Amendments- Revisions to Recreational Standards for Inland Fresh Surface Waters in the Santa Ana Region, January 12, 2012]

## **5.8 Changes to Table 3-1 BENEFICIAL USES and Table 4-1 WATER QUALITY OBJECTIVES**

### **5.8.1 Summary**

The following describes the changes proposed to Table 3-1 BENEFICIAL USES and Table 4-1 WATER QUALITY OBJECTIVES in the Basin Plan. The proposed changes are also shown in the draft revised tables included in the draft Basin Plan amendment (Attachments 1 and 2 to tentative Resolution No. R8-2012-0001) (Attachment A to this staff report).

Eight (8) surface waterbodies and appropriate beneficial use designations for those waters are proposed to be added to Table 3-1 BENEFICIAL USES. These waters would be added also to the list of surface waters in Table 4-1 WATER QUALITY OBJECTIVES. No numeric objectives for the constituents listed in Table 4-1 are proposed to be added for these waters at this time. The narrative objectives specified in the Basin Plan would apply.

The surface waters proposed to be added are listed below. Recommended beneficial use designations for these waters are discussed below and shown in Table 5.8, Waters Proposed to be added to Table 3-1.

- 1) Santa Ana-Delhi Channel;
- 2) Greenville-Banning Channel;
- 3) Huntington Beach Wetlands;
- 4) Los Cerritos Wetlands;
- 5) Mystic Lake;
- 6) Goodhart Canyon Creek;
- 7) St. John's Canyon Creek;
- 8) Cactus Valley Creek.

Two irrigation reservoirs (Laguna and Lambert) that are currently listed in Table 3-1 and Table 4-1 in the Basin Plan, together with their beneficial use designations, are proposed for deletion since the reservoirs no longer exist.

Consideration of these additions/deletions will enable the Regional Board to address certain Basin Plan triennial review commitments identified in 2006.

Changes to Table 3-1 and 4-1 are also proposed to revise the listing of Reach 1 of Temescal Creek to Reaches 1a and 1b, to specify the revised reach boundaries, to assign appropriate beneficial uses and to adjust the downstream boundary of Reach 2 of the Creek. Given perennial flows in Reach 2 and 4 of the Creek, the beneficial use designations for these reaches are proposed to be modified from "I" (intermittent) to "X", existing or potential.

Changes to the beneficial use designations for Reach 3 and 4 of the Santa Ana River and Sunnyslope Channel are proposed as follows:

- Santa Ana River Reach 3: add Spawning, Reproduction and Development (SPWN);
- Santa Ana River Reach 4: add SPWN and Rare, Threatened or Endangered Species (RARE);
- Sunnyslope Channel: add RARE beneficial use.

Extensive surveys conducted by the Santa Ana Sucker Conservation Team over the last several years have shown that Reach 3 and 4 of the Santa Ana River and Sunnyslope Channel currently are important habitat for the federally listed Santa Ana sucker (*Catostomus santaanae*).

The following table note is proposed to be included in Table 3-1:

- “u”: REC 1 and/or REC 2 are not attainable uses as determined by UAA (See Table 3-2 and Chapter 3, Recreation Beneficial Uses)

The “u” notation would be used to annotate the specific waters listed in Table 3-1 to which it applies.

Other proposed changes are intended to clarify and correct information provided in the two tables:

- 1) Johnson Creek - recognize this creek as a tributary of Bear Creek, not a tributary of Big Bear Lake;
- 2) Cajon Creek, Deer Creek, and Day Creek – Per USGS terminology, the word “Canyon” should be added to each name, i.e., Cajon Canyon Creek, Deer Canyon Creek, Day Canyon Creek;
- 3) Cajon Canyon Creek - delete from the listing of streams associated with Mill Creek (Prado area); (the Cajon Canyon Creek of Region 8 is tributary to the Santa Ana River in the City of San Bernardino);
- 4) Knickerbocker Creek – divide into two reaches, specify the boundaries of these reaches, and list appropriate beneficial use designations; list the Creek separately as a tributary to Big Bear Lake;

- 5) Correct the spelling of the following waters: Poligue (rather than Polique) Creek, a tributary of Big Bear Lake; Herkey (rather than Hurkey) and Potrero (rather than Protrero) Creeks, tributaries to the San Jacinto River; Cienaga (rather than Cienega) Seca and Round Cienaga (rather than Cienega), both tributaries to the Santa Ana River; and Monkeyface (rather than Monkey Face) Creek, a tributary to Mill Creek;
- 6) Revise the key to symbols used in Table 3-1 to show that “X” designates “Existing or Potential Beneficial Use, rather than “Present or Potential”;
- 7) Modify the explanatory note regarding access restrictions to delete specific agency names.

## 5.8.2 Beneficial Uses and Designations

Chapter 3 of the Basin Plan identifies and defines the twenty beneficial uses recognized in the Santa Ana Region. These are:

Municipal and Domestic Supply (**MUN**) waters are used for community, military, municipal or individual water supply systems. These uses may include, but are not limited to, drinking water supply.

Agricultural Supply (**AGR**) waters are used for farming, horticulture or ranching. These uses may include, but are not limited to, irrigation, stock watering, and support of vegetation for range grazing.

Industrial Service Supply (**IND**) waters are used for industrial activities that do not depend primarily on water quality. These uses may include, but are not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection and oil well repressurization.

Industrial Process Supply (**PROC**) waters are used for industrial activities that depend primarily on water quality. These uses may include, but are not limited to, process water supply and all uses of water related to product manufacture or food preparation.

Groundwater Recharge (**GWR**) waters are used for natural or artificial recharge of groundwater for purposes that may include, but are not limited to, future extraction, maintaining water quality or halting saltwater intrusion into freshwater aquifers.

Navigation (**NAV**) waters are used for shipping, travel or other transportation by private, commercial or military vessels.

Hydropower Generation (**POW**) waters are used for hydroelectric power generation.

Water Contact Recreation (**REC 1\***)<sup>1</sup> waters are used for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses may include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, whitewater activities, fishing and use of natural hot springs.

Non-contact Water Recreation (**REC 2\***) waters are used for recreational activities involving proximity to water, but not normally involving body contact with water where ingestion of water would be reasonably possible. These uses may include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting sightseeing and aesthetic enjoyment in conjunction with the above activities.

Commercial and Sportfishing (**COMM**) waters are used for commercial or recreational collection of fish or other organisms, including those collected for bait. These uses may include, but are not limited to, uses involving organisms intended for human consumption.

Warm Freshwater Habitat (**WARM**) waters support warmwater ecosystems that may include, but are not limited to, preservation and enhancement of aquatic habitats, vegetation, fish and wildlife, including invertebrates.

Limited Warm Freshwater Habitat (**LWRM**) waters support warmwater ecosystems which are severely limited in diversity and abundance as the result of concrete-lined watercourses and low, shallow dry weather flows which result in extreme temperature, pH, and/or dissolved oxygen conditions. Naturally reproducing finfish populations are not expected to occur in **LWRM** waters.

Cold Freshwater Habitat (**COLD**) waters support coldwater ecosystems that may include, but are not limited to, preservations and enhancement of aquatic habitats, vegetation, fish and wildlife, including invertebrates.

Wildlife Habitat (**WILD**) waters support wildlife habitats that may include, but are not limited to, the preservation and enhancement of vegetation and prey species used by waterfowl and other wildlife.

Preservation of Biological Habitats of Special Significance (**BIOL**) waters support designated areas or habitats, including, but not limited to, established refuges, parks, sanctuaries, ecological reserves or preserves, and Areas of Special Biological Significance (ASBS), where the preservation and enhancement of natural resources requires special protection.

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<sup>1</sup> Revisions to the name of this use and its definition are now proposed as part of these Basin Plan amendments. See Staff Report Section 5.1.

Rare, Threatened or Endangered Species (**RARE**) waters support the habitats necessary for the survival and successful maintenance of plant or animal species designated under state or federal law as rare, threatened or endangered.

Spawning, Reproduction and Development (**SPWN**) waters support high quality aquatic habitats necessary for reproduction and early development of fish and wildlife.

Marine Habitat (**MAR**) waters support marine ecosystems that include, but are not limited to, preservation and enhancement of marine habitats, vegetation (e.g., kelp), fish and shellfish and wildlife (e.g., marine mammals and shorebirds).

Shellfish Harvesting (**SHEL**) waters support habitats necessary for shellfish (e.g., clams, oysters, limpets, abalone, shrimp, crab, lobster, sea urchins and mussels) collected for human consumption, commercial or sport purposes.

Estuarine Habitat (**EST**) waters support estuarine ecosystems, which may include, but are not limited to, preservation and enhancement of estuarine habitats, vegetation, fish and shellfish, and wildlife, such as waterfowl, shorebirds, and marine mammals.

Table 3-1 BENEFICIAL USES lists the beneficial use designations for the ground and surface waters in the Region. Several of the conventions currently employed in this Table should be described:

- An “X” in a beneficial use column for a specific waterbody indicates that that waterbody has a “Present or Potential” use. Note that the term “present” is inconsistent with the narrative in Chapter 3, BENEFICIAL USES - BENEFICIAL USE TABLE, which employs the term “existing”. The proposed amendments include changing “Present or Potential” to “Existing or Potential” as a matter of clarity and consistency. “Existing uses” are those attained on or after November 28, 1975. Some of the existing uses are well-known, while some are not.
- “Potential” uses are considered effectively the same as “probable future” uses, based on the terminology employed in Water Code Section 13241. (Per 13241(a), the past, present, and *probable future* beneficial uses of water are to be considered by the Regional Board when establishing water quality objectives.) Potential uses are designated when plans already exist to put the water to those uses, or because conditions make such future uses likely. Designating a potential use serves to protect the quality of that water for such eventual use.
- An “I” indicates that the waterbody has an intermittent beneficial uses. This may occur because water conditions do not allow the beneficial use to exist year-round, as in ephemeral streams.

- A “+” in the MUN beneficial use column indicates that the waterbody has been specifically excepted from the MUN designation in accordance with the criteria specified in the “Sources of Drinking Water Policy”, established by the State Water Resources Control Board (Resolution No. 88-63, as revised by Resolution No. 2006-0008).

The amendments to the Basin Plan now being considered and described in this staff report would add an additional notation to be applied as appropriate in Table 3-1 (and, as noted above, would modify the definition of “X” from “Present or Potential” to “Existing or Potential”). The additional notation is as follows:

- A “u” in the REC1 and/or REC2 column for a specific surface water body denotes that the use(s) are not existing uses and are not attainable, as determined by a Use Attainability Analysis. (See also Staff Report Section 5.6)

### **5.8.3 Beneficial Use Designations Recommended for Waters Proposed to be Added to Table 3-1**

#### **5.8.3.1 Information employed in recommendations for proposed beneficial use designations.**

Proposed beneficial use designations for the surface waters proposed to be added to the Basin Plan are based on consideration of the following:

- The “fishable/swimmable” goal reflected in Clean Water Act § 101(a)(2);
- The *Sources of Drinking Water Policy* (State Water Board Resolution No. 88-63, as revised by Resolution No. 2006-0008);
- The California Department of Fish and Game Natural Diversity Data Base;
- Unpublished information provided by federal and state wildlife experts;
- Field observations of the waterbodies by Board staff and others;
- Recommendations of stakeholders.

A brief description of some of these sources follows.

### **5.8.3.2 Clean Water Act § 101(a)(2) and Implementing Regulations**

As previously discussed (see Staff Report Section 5.6.2.1), Clean Water Act § 101(a)(2) and implementing regulations create a rebuttable presumption that all waters support “fishable/swimmable” uses, such as REC1, WARM and COLD. To rebut this presumption, an Use Attainability Analysis (UAA) must be conducted that demonstrates that such uses are not attainable based on one or more of the factors identified in federal regulations.

Accordingly, all waters proposed to be added to the list of waters in Table 3-1 are designated REC1, except for those waters for which UAAs have been performed, resulting in findings that REC1 and, in some cases, also REC2 uses are not attainable and should not be so designated. Waters that are proposed for REC1 designation are also proposed to be designated REC2.

UAAs were conducted for the Santa Ana-Delhi and Greenville-Banning channels and recommendations for recreation use designations for these channels are discussed in detail elsewhere in this report (see Section 5.6 of the Staff Report). An Use Attainability Analysis was also conducted for a part of Temescal Creek that is already listed in Table 3-1; this investigation led to recommendations for changes in reach identification and recreational use designations (Section 5.6 of the Staff Report). The revised reaches are identified in the proposed revised Table 3-1, together with beneficial use designation recommendations for the revised reaches. An UAA was also conducted for a portion of Cucamonga Creek (Section 5.6.6 of the Staff Report), which is already listed in the Basin Plan. Revised recreation use designations are proposed and reflected in the revised Table 3-1 in the draft Basin Plan amendment.

As discussed in Section 5.1 the proposed Basin Plan amendments include changes to the definition of the REC1 use, and the name of this use from “Water Contact Recreation” to “Primary Contact Recreation”. Neither the changes in the name of the use nor in the definition would affect the presumptive nature of this beneficial use or obviate the need to conduct an Use Attainability Analysis to demonstrate that the REC1 use is not attainable. In short, these changes in nomenclature have no material effect on the proposed recreational use designations.

USEPA uses the term “fishable” to mean “aquatic life protection,” a much broader meaning than merely providing protection of water quality needed to support sport or commercial fishing. Under this expansive meaning of “fishable”, the water quality standards that support existing communities of aquatic organisms must be protected, regardless of whether the aquatic community supports a sport or commercial fishery, or is composed entirely of organisms other than fish, such as invertebrates, algae and vascular plants<sup>2</sup>. As a result, all surface waters that are proposed to be added to the Basin Plan must be assigned an aquatic habitat beneficial use, either COLD, WARM,

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<sup>2</sup> U.S.EPA. Water Quality Standards Regulation; Proposed Rule 1998. July 7, 1998. 63 Federal Register 36741-36806

MAR, or LWARM. No UAAs have been conducted of the waters proposed to be added to the Basin Plan to rebut the presumption of an aquatic life beneficial use.

It is appropriate also to designate all waters proposed to be added to the Basin Plan at this time as supporting the WILD beneficial use. This is because even in heavily modified waterways, like flood control channels, wildlife (most often observed are birds such as black-neck stilts, cliff swallows, mallard ducks, etc. but also including other animals, such as mammals) use these waters as their habitat to forage, rest or nest. The use of flood control channels in Southern California as aquatic and wildlife habitat has been well documented by local wildlife experts<sup>3</sup>.

### **5.8.3.3 Sources of Drinking Water Policy**

The Sources of Drinking Water Policy declares that with specified exceptions, all waters of the state are to be considered suitable, or potentially suitable, for municipal or domestic supply and should be so designated (MUN) by the Regional Boards. Those waters excepted under the Policy include the following: surface and groundwaters with total dissolved solids (TDS) levels in excess of 3,000 mg/l; surface and groundwaters that are contaminated, either by natural processes or by human activity, to the extent that they cannot reasonably be treated for domestic use; surface waters in systems designated or modified to carry municipal/industrial/agricultural wastewaters or stormwater runoff; and surface and groundwaters where the water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day. The Policy was adopted by the State Water Board in 1988 (Resolution No. 88-63) and amended in 2006 (Resolution No. 2006-0008) to establish a site-specific exception for Old Alamo Creek in the Central Valley Region.

All of the waters that are proposed to be added to the Basin Plan by this amendment qualify for one or more of the exceptions under the Sources of Drinking Water Policy, and therefore staff proposes that these waters be shown as excepted from the MUN beneficial use.

### **5.8.3.4 California Department of Fish and Game (CDFG) Natural Diversity Data Base**

The CDFG Natural Diversity Data Base is a definitive resource for information about rare, threatened and endangered (RTE) plant and animal species in California that are under the protection of the federal Endangered Species Act and/or the California Endangered Species Act. RTE species lists created from the CDFG Natural Diversity

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<sup>3</sup> Garrett, Kimball. Ornithology Collections Manager, Natural History Museum of Los Angeles County, Personal Communication (e-mail), Dec. 2008; Cooper, Daniel. "Shorebird Use of the Lower Los Angeles River Channel: a Novel Wetland Habitat" Nov. 2006; Bloom, Peter et. al. "Avifauna Along Portions of the Los Angeles River" April 2002.

Data Base were consulted to determine if the RARE beneficial use should be assigned to any of the water bodies that staff proposes to add to the Basin Plan.

**5.8.3.5 Expert Opinion, including staff of United States Geological Survey (USGS) Biological Survey Unit, CDFG, and U.S. Fish and Wildlife Service (USFWS)**

Anecdotal reports and unpublished information supplied by staff of the USGS Biological Survey team, CDFG, and USFWS have been used to help determine if the RARE beneficial use should be to assigned to the proposed waters.

**5.8.4 Recommended Beneficial Use Designations**

Recommended beneficial use designations for the waters proposed to be added to the Basin Plan are discussed below and shown in Table 5.8 Add Waters - Table 3-1. As discussed below, for certain of these waters, the proposed designations would be identified as "I" (intermittent). With these exceptions, all the proposed designations would be identified as "X" (existing or potential).

**Table 5.8 WATERS PROPOSED TO BE ADDED TO TABLE 3-1**

<b>BAYS, ESTUARIES, AND TIDAL PRSIMS</b>	Beneficial Use																	Hydrological Unit				
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	MAR	SHEL	EST	Primary	Secondary
Tidal Prism of Santa Ana-Delhi Channel – Bicycle Bridge at University Dr. at Upper Newport Bay to 1036 ft. upstream	+						u	X							X	X		X			801.11	
Tidal Prism of Greenville-Banning Channel – Santa Ana River confluence to Inlatable Diversion Dam	+						u	X							X	X		X			801.11	
Huntington Beach Wetlands	+						X	X						X	X	X	X	X			801.11	
Los Cerritos Wetlands	+						X	X						X	X	X	X	X			801.11	
<b>LAKES AND RESERVOIRS/ SAN JACINTO RIVER BASIN</b>																						
Mystic Lake	+						I	I		I				X	X	X					802.11	

X Existing or Potential Beneficial Use  
I Intermittent Beneficial Use

u REC1 and/or REC2 are not attainable uses as determined by UAA  
+ Excepted from MUN

**TABLE 5.8 - PROPOSED WATERS TO BE ADDED TO TABLE 3-1 - CONTINUED**

INLAND SURFACE STREAMS / LOWER SANTA ANA RIVER BASIN / Newport Bay Watershed	Beneficial Use																	Hydrological Unit					
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	MAR	SHEL	EST	Primary	Secondary	
Santa Ana-Delhi Channel																							
Reach 1 – upper boundary of Tidal Prism to intersection of Sunflowers Ave. /Flower	+						u	u		X				X	X							801.10	
Reach 2 – Sunflower Ave./Flower St. intersection to Warner Avenue	+						u	X		X				X								801.10	
<b>Lower Santa Ana River Watershed</b>																							
Greenville-Banning Channel																							
Reach 1-Inflatable Diversion Dam to California Street	+						u	u		X				X								801.10	
<b>SAN JACINTO RIVER BASIN</b>																							
Goodhart Canyon, St. John's Canyon, and Cactus Valley Creeks	+	I					I	I		I				X								802.15	

X Existing or Potential Beneficial Use  
 I Intermittent Beneficial Use

u REC1 and/or REC2 are not attainable uses as determined by UAA  
 + Excepted from MUN

#### 5.8.4.1 Santa Ana-Delhi Channel

Three reaches of the Santa Ana-Delhi Channel are proposed to be identified and added to the Basin Plan. Maps, photographs and discussion of the characteristics of each reach are included in the Santa Ana-Delhi Channel UAA report (SAD UAA)(see Section 5.6.3) and the "Use Attainability Analysis Technical Report for the Santa Ana-Delhi Channel", CDM, August 2010 (SAD Technical Report)).

##### 5.8.4.1.1 Santa Ana-Delhi Channel Tidal Prism: Bicycle Bridge at Upper Newport Bay to 1036' Upstream

The proposed Tidal Prism Reach extends from the Bicycle Bridge, located at the end of University Drive in the City of Newport Beach to 1,036 ft. upstream. See SAD UAA, Figure SAD-3 (see Section 5.6.3). This section of the channel is subject to tidal influence. The Upper Newport Bay Ecological Preserve lies downstream of the Bicycle Bridge. The REC1 beneficial use is not attained in the Tidal Prism, as discussed in the UAA Section 5.6.3. Other recommendations regarding beneficial use designations are as follows:

- **MAR** (Marine Habitat): The marine waters of the channel support a marine habitat that is interconnected with the marine habitat of the Upper Newport Bay. Marine fish can be seen at times swimming in this reach. Although the most upstream section of the tidal prism may experience brackish or freshwater conditions during low tides, marine waters dominate this upstream section during high tides.
- **MUN** (Municipal and Domestic Supply): MUN is not an existing use nor can this use be feasibly attained in the future. Total dissolved solids (TDS) levels exceed 3,000 mg/l<sup>4</sup>. An exception from the MUN designation is appropriate pursuant to the Sources of Drinking Water Policy.
- **RARE** (Rare, Threatened, or Endangered Species): Wildlife biologists working with CDFG and the USFWS report that the federally-listed Light-footed Clapper Rail (*Rallus longirostris levipes*) has been observed in the Tidal Prism. The federally-listed California Least Tern (*Sterna antillarum*) is reported to forage in the Tidal Prism<sup>5</sup>.

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<sup>4</sup> The "Glossary of Salt Water" published by the [Water Quality Association](#) classifies ocean waters as containing 30,000 to 40,000 ppm TDS.

<sup>5</sup> Orange County Environmental Management Agency. Draft Environmental Impact Report #527, Santa Ana-Delhi Channel System April 1993.

- **REC2** (Non-contact Water Recreation): Field and camera observations, reported in Section 5.6, demonstrate that the Bicycle Bridge is heavily used by walkers, runners, bicyclists and even equestrians traveling around the Ecological Preserve. The Bridge is used for wildlife observation both upstream (in the proposed tidal prism) and downstream, sightseeing and aesthetic enjoyment.
- **WILD** (Wildlife Habitat): Birds and other wildlife from the Upper Newport Bay regularly use the tidal prism as habitat.

#### 5.8.4.1.2 Santa Ana-Delhi Channel Reach 1: Upper Boundary of Tidal Prism to Sunflower Street/Flower Avenue Intersection

The proposed Reach 1 extends from the upper boundary of the proposed tidal prism to immediately upstream of the intersection of Sunflower Street and Flower Avenue in the City of Santa Ana. The channel has been heavily modified to convey stormwater flows to protect urban development. See SAD UAA, Figure SAD-4. From the upper boundary of the tidal prism upstream approximately ¼ mile to the Mesa Avenue Bridge, the channel is earthen, with a concrete lined south bank. In the remainder of the Reach, from Mesa Avenue upstream to the intersection of Sunflower Street and Flower Avenue, the channel is concrete lined with vertical walls. REC1 and REC2 beneficial uses are not attained in Reach 1, as discussed in the SAD UAA (see Section 5.6.3 of the Staff Report). Other recommendations regarding beneficial use designations are as follows:

- **MUN** (Municipal and Domestic Supply): MUN is not an existing use nor can this use be feasibly attained. An exception from the MUN designation is appropriate pursuant to the Sources of Drinking Water Policy. As noted, this Reach was originally constructed to facilitate agricultural activities and has been heavily modified to convey carry urban storm flows. The watershed tributary to this area of the channel is almost completely urbanized.
- **RARE** (Rare, Threatened, or Endangered Species): The western pond turtle (*Emys marmorata*), listed as a species of special concern by the CDFG, was reported in this reach. A 1998 survey conducted for the Natural Community Conservation Plan reported that a western pond turtle (*Emys marmorata*) was captured in the earthen section of the channel from Mesa Avenue to the Bicycle Bridge. USGS staff from the Western Ecological Research Center reported to Regional Board staff in 2010 that although western pond turtles were not captured during a 2003 survey of the channel they believe the turtles exist in the channel.
- **WARM** (Warm Freshwater Habitat): Perennial flow in this reach provides aquatic habitat, albeit supporting low biological diversity. Temperature conditions warrant a WARM rather than COLD designation.

- **WILD** (Wildlife Habitat): Wildlife, including a variety of bird species (e.g., cliff swallows, mallard ducks), turtles of unknown species, and the western pond turtle (see RARE above) have been observed in this Reach.

#### **5.8.4.1.3 Santa Ana-Delhi Channel Reach 2: Sunflower Street/ Flower Avenue Intersection to Warner Avenue**

The proposed Reach 2 extends from just upstream of the intersection of Sunflower Street and Flower Avenue to Warner Avenue in the City of Santa Ana. The lower area of the channel is trapezoidal, with earthen bottom and rip-rapped sides (see SAD UAA, Figure SAD-5). Further upstream this Reach converts to a concrete-lined channel with vertical walls. As in the proposed Reach 1, the channel in this area has been heavily modified to convey stormwater flows. The REC1 beneficial use is not attained in Reach 1, as discussed in the UAA. Other recommendations regarding beneficial use designations are as follows:

- **MUN** (Municipal and Domestic Supply): MUN is not an existing use nor can this use be feasibly attained in the future. An exception from the MUN designation is appropriate pursuant to the Sources of Drinking Water Policy. As noted above, the channel has been heavily modified to convey storm water runoff from the urbanized watershed.
- **WILD** (Wildlife Habitat): Wildlife is commonly observed in this area of the channel, including small finned fish, crayfish, and waterfowl such as herons, egrets and mallard ducks. Vegetation occasionally grows large enough (between channel maintenance activities) to enhance the habitat value in the earthen section of the channel.
- **WARM** (Warm Freshwater Habitat): Perennial flow provides support for an aquatic habitat. As noted, small fish and crayfish are observed in the channel waters.
- **REC 2** (Non-contact Water Recreation); Individuals from adjacent schools, businesses, parks and neighborhoods, and on sidewalks that bridge the channel, are able to view this Reach. There are opportunities for aesthetic enjoyment of the water and viewing the wildlife attracted to it. Large wading birds such as blue herons and egrets and colorful birds such as mallards and red wing blackbirds are often observed in this proposed reach.

#### **5.8.4.2 Greenville-Banning Channel**

Two reaches of the Greenville-Banning Channel are proposed to be identified and added to the Basin Plan. Maps, photographs and discussion of the characteristics of each reach are included in the Greenville-Banning Channel UAA report (GB UAA)

for the Channel (see Section 5.6.4 and the “Use Attainability Analysis Technical Report for the Greenville-Banning Channel”, CDM, August 2010 (GB Technical Report)).

#### **5.8.4.2.1 Greenville-Banning Tidal Prism; Confluence with Santa Ana River upstream 1.2 miles to Inflatable Dam**

The proposed Tidal Prism reach extends from the channel’s confluence with the Santa Ana River 1.2 miles upstream to an inflatable diversion dam. The channel in this area is concrete lined with vertical walls and completely fenced, with locked gates at certain locations. See GB UAA, Figure GB-5. Marine water and tidal flows dominate this section. The fencing separates the channel from a bicycle trail that is adjacent to and parallels the entire section of the proposed reach. The REC1 beneficial use is not attained in the proposed tidal prism, as discussed in the GB UAA (see Section 5.6.4). Other recommendations regarding beneficial use designations are as follows:

- **MUN** (Municipal and Domestic Supply): MUN is not an existing use nor can this use be feasibly attained in the future. Total dissolved solids (TDS) levels exceed 3,000 mg/l. An exception from the MUN designation is appropriate pursuant to the Sources of Drinking Water Policy.
- **REC2** (Non-contact Water Recreation): The bicycle path adjacent to the channel offers opportunities for aesthetic enjoyment and wildlife viewing.
- **MAR** (Marine Habitat): The marine waters of the channel support a marine habitat that is interconnected with the tidal prism of the Santa Ana River and the Ocean. Marine organisms such as barnacles and mussels grow on the concrete walls of this reach.
- **WILD** (Wildlife Habitat): Birds and fish from the adjacent tidal prism of the Santa Ana River and birds from area wetlands use the proposed tidal prism as habitat.
- **RARE** (Rare, Threatened, or Endangered Species): Per CDFG staff (personal communication with Regional Board staff), the proposed tidal prism provides foraging habitat for the federally listed California Least Tern (*Sterna antillarum*).

#### **5.8.4.2.2 Greenville-Banning Channel, Reach 1: Inflatable Dam to California Street**

This proposed reach extends from the inflatable dam upstream to California Street, approximately 2.15 miles. The channel is concrete-lined with vertical walls (trapezoidal walls for a short distance near California Street) and is designed to convey stormwater flows from the heavily urbanized area tributary to it. See GB UAA, Figures GB-6, 7. The

entire length is fenced and gated to prohibit unauthorized access. Neither the REC1 nor the REC2 beneficial use is attained in the proposed Reach 1, as discussed in the UAA. Other recommendations regarding beneficial use designations are as follows:

- **MUN** (Municipal and Domestic Supply): MUN is not an existing use and cannot be feasibly attained. An exception from the MUN designation is appropriate pursuant to the Sources of Drinking Water Policy. As noted above, the channel has been heavily modified to convey storm water runoff from the urbanized watershed.
- **WILD** (Wildlife Habitat): Wildlife, particularly birds such as mallard ducks, use this reach for foraging and loafing.
- **WARM** (Warm Freshwater Habitat): Perennial low flows in the channel provide support for an aquatic habitat, albeit supporting low biological diversity.

#### **5.8.4.3 Huntington Beach Wetlands**

The Huntington Beach Wetlands have become a viable and significant salt water marsh as result of recent restoration projects. As a result, Board staff proposes adding the wetlands to the Basin Plan. The wetlands are found along the coast between the Santa Ana River and Beach Boulevard, inland of the Pacific Coast Highway in the City of Huntington Beach. These wetlands are remnants of a once extensive complex of coastal wetlands that has been fragmented by roads, residential units, drainage channels, and the AES Huntington Beach Generating Station (power plant).

The Huntington Beach Wetlands Conservancy, with support from the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Agency and other collaborators, continue the work to restore the Wetlands. In 2011 the Conservancy owned and managed 140 acres of the Wetlands.



**Figure 5.8.4.3.1 Huntington Beach Wetlands.** This image from 2011 shows the three restored wetlands, Magnolia, Brookurst, and Talbert Marshes, as well as the Newland and Waterfront segments of the Wetlands. The Santa Ana River is visible to the east of the Wetlands.

The Wetlands have been divided into 5 segments. The Talbert, Brookhurst, and Magnolia Marsh segments are adjacent to one another and together they comprise the largest, relatively intact section of the remaining wetlands complex. These marshes are located between Pacific Coast Highway and Orange County Flood Control District's Huntington Beach and Talbert Channels and Orange County Sanitation District facilities. They derive their names from Brookhurst and Magnolia Streets, which dissect the marsh, and from the Talbert Channel, which drains to the ocean through the Talbert Marsh.

The 25 acre Talbert Marsh was fully restored in 1989 by construction of tidal channels, islands, and an ocean inlet. The Brookhurst and Magnolia Marshes, westerly and upcoast from the Talbert Marsh, are bordered on the northwest by the power plant. Until recently, these areas contained degraded salt marsh with little tidal flow. In 2009 and 2010, the Brookhurst and Magnolia Marsh segments were restored by allowing tidal flows to freely enter them and by creating tidal channels and islands to encourage establishment of different types of marsh habitat.



**Figure 5.8.4.3.2 Huntington Beach Wetlands; Talbert Channel shown in foreground and the Brookhurst and Magnolia Marsh segments shown beyond the Channel.** The Talbert Channel provides tidal flows to the newly restored Brookhurst and Magnolia Marsh segments. Photograph by Regional Board staff 2011.

The Newland Marsh segment is on a 40 acre parcel of land located just inland of the north eastern corner of Pacific Coast Highway and Beach Boulevard. This area is west of the power plant. As of 2011, the property ownership has been slated to be transferred to the Huntington Beach Wetlands Conservancy. It is proposed that this marsh segment will be restored similar to the other marsh segments. The Huntington Beach Channel will likely be utilized to provide an exchange of tidal flow with the ocean through the Talbert Channel and ocean inlet.

The Waterfront Wetlands segment is a three acre parcel located on the west side of the Beach Boulevard and north of Pacific Coast Highway, across Beach Boulevard from the Newland Marsh segment. Currently, approximately one acre of the Waterfront Wetlands functions as a salt marsh. A water quality treatment wetland has been constructed in this parcel to treat urban runoff from adjacent areas and occupies the remainder of the wetland.

Recommendations regarding beneficial use designations are as follows:

- **MUN** (Municipal and Domestic Supply): MUN is not an existing use nor can this use be feasibly attained in the future. Total dissolved solids (TDS) levels exceed

3,000 mg/l. An exception from the MUN designation is appropriate pursuant to the Sources of Drinking Water Policy.

- **REC1** (Water Contact Recreation (proposed “Primary Contact Recreation”)): REC1 is a presumptive use unless and until an UAA is completed that documents otherwise.
- **REC2** (Non-contact Water Recreation): The REC2 designation is appropriate as the wetlands are of interest for bird watching and for observing other wildlife and natural resources. A visitor center and public viewing areas are planned.
- **BIOL** (Preservation of Biological Habitats of Special Significance): The BIOL designation is appropriate as the wetlands support areas of habitat designated for protection and preservation of endemic plant species and endangered species.
- **WILD** (Wildlife Habitat): The wetlands water support a wide variety of wildlife species.
- **RARE** (Rare, Threatened or Endangered Species): The wetlands support habitat for the federally-listed Belding’s Savannah Sparrow (*Passerculus sandwichensis beldingi*), reported to nest in the wetlands, and the Least Tern (*Sternula antillarum*), reported to feed in the open water of the wetlands. In addition, there is the potential for other listed species to utilize the wetlands. For example, the federally-listed light-footed clapper rail (*Rallus longirostris levipes*) is currently found in the nearby Santa Ana River Salt Marsh and as habitat improves clapper rails may migrate into the wetlands<sup>6</sup>.
- **SPWN** (Spawning, Reproduction and Development): The wetlands, like all healthy coastal wetlands, provide spawning grounds and nurseries for finfish and shellfish. NOAA’s website states that the restored Huntington Beach Wetlands will provide valuable habitat for coastal marine fish.
- **MAR** (Marine Habitat): This Wetland supports the MAR use especially in the restored segments resulting from construction of the Talbert Channel ocean inlet.

#### 5.8.4.4 Los Cerritos Wetlands

The Los Cerritos wetlands occupy areas within both the Santa Ana and Los Angeles Regional Boards. The wetlands consist of approximately 500 acres of remnant salt marsh located along and adjacent to the San Gabriel River, and inland of the Pacific Coast Highway in the cities of Seal Beach and Long Beach. Approximately 200 acres

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<sup>6</sup> Personal communication from Dick Zembal, wildlife expert and member of the clapper rail recovery team.

of these wetlands are found in the Santa Ana Region, in the City of Seal Beach and unincorporated Orange County. These wetlands are functioning salt marsh, although degraded, that is in the process of being restored. The Los Angeles Regional Board has already incorporated in their Basin Plan that part of the wetlands that is within that Region. The two Regions are separated by the Los Angeles/Orange County line. See Figure 5.8.4.4.1.



**Figure 5.8.4.4.1. Los Cerritos Wetlands in Region 8.** Tidal flows from the San Gabriel River enter the wetlands through a culvert before flowing in a small channel, flooding adjacent areas.



**Figure 5.8.4.4.2. Los Cerritos Wetlands Tidal Channel facing to the East near the County Line.** Photograph by Regional Board Staff, 2009.

The Los Cerritos Wetlands have been degraded by oil production activities, construction of flood control facilities, the dredging and construction of Los Angeles Department of Water and Power's Haynes Power Plant cooling water channel, and other activities in which discharges of fill occur. The Los Cerritos Wetland Land Trust has developed a comprehensive plan for restoring the wetlands. As of 2011, approximately 100 acres of wetland consisting of property of the former Hellman Ranch in Seal Beach have been purchased for restoration.

The Santa Ana Region segment of the wetlands has shallow channels that receive tidal flows from the San Gabriel River. This has created salt marsh conditions throughout much of the Hellman Ranch restoration area. In addition, there are salt pannes, barren intertidal salt flats, in the restoration area that provide habitat for several species of concern, including a subspecies of tiger beetle and the Belding's Savannah Sparrow.

Recommendations regarding beneficial use designations are as follows:

- **MUN** (Municipal and Domestic Supply): MUN is not an existing use nor can this use be feasibly attained in the future. Total dissolved solids (TDS) levels exceed 3,000 mg/l. An exception from the MUN designation is appropriate pursuant to the Sources of Drinking Water Policy
- **REC1** (Water Contact Recreation (proposed "Primary Contact Recreation")): REC1 is a presumptive use unless and until an UAA is completed that documents otherwise.

- **REC2** (Non-contact Water Recreation): REC2 designation is appropriate since the wetlands are of interest for bird watching and for observing other wildlife and natural resources. This will be especially true as restoration proceeds.
- **WILD** (Wildlife Habitat): The wetlands provide habitat for a variety of wildlife species.
- **RARE** (Rare, Threatened or Endangered Species): The RARE designation is appropriate because the wetlands support habitat for the federally-listed Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*) which is reported to nest in the wetlands. In addition, the restoration of the wetlands is expected to provide habitat for other listed species.
- **SPWN** (Spawning, Reproduction and Development): Currently the tidal flows into the wetland provide limited spawning habitat for marine species. However, there is potential for expanded spawning habitat when the wetlands are restored.
- **MAR** (Marine Habitat): The wetlands support a marine habitat that is interconnected with direct tidal flows from the Ocean via the San Gabriel River Tidal Prism. Marine tidal flows pass back and forth from the San Gabriel River into the proposed Hellman Ranch restoration area through a small culvert. Marine fish species are observed passing through the culvert into the channels of the restoration area. As noted in the proposed restoration plans the marine habitat is expected to increase greatly once restoration activities are completed.

#### 5.8.4.5 Mystic Lake

Mystic Lake is an intermittent lake, sometimes very large, located north of the community of Lakeview, in Riverside County. Currently, Mystic Lake is not listed in the Basin Plan. Board staff proposes adding the lake to the Basin Plan as result of its significant beneficial uses.

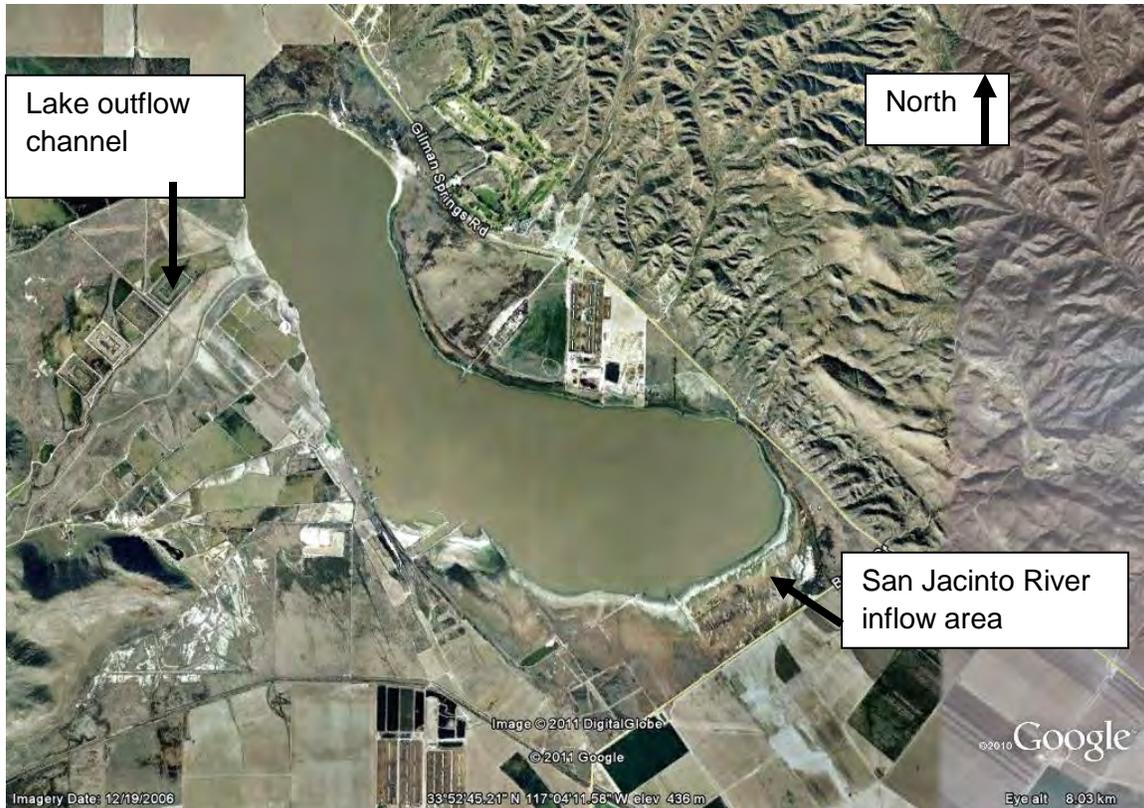
The lake forms in a depression that occupies a graben, a crustal block between parallel faults. In this area, between the San Jacinto and Casa Loma Faults, the land is dropping relative to land on either side of the faults. Mystic Lake is fed by the San Jacinto River when it flows out of the San Jacinto River bypass channel as a result of periods of heavy rain locally and snow in the San Jacinto Mountains.

The lake can enlarge to over 4,000 acres and approximately 15 feet deep, before spilling out and continuing to flow downstream in the San Jacinto River Channel. Once filled, the lake may persist for several years before drying up. During drought, or prolonged periods of average or below average rainfall, the lake dries up. See Figures 5.8.4.5.1, 5.8.4.5.2, and 5.8.4.5.3.

Mystic Lake is within the San Jacinto Wildlife Area, operated and managed by the California Department of Fish and Game (CDFG). CDFG officials estimate that in a 10

year period, the lake is dry half the time. Regional Board staff observed in early 2007 that the lake was approximately 2 miles long,  $\frac{1}{4}$  of a mile wide, and shallow, possibly 4-6 feet deep in the deepest area. Before the beginning of the 2010-2011 rainy season the lake had completely dried up. As of June 2011, the lake had partially filled.

Waterfowl hunting, bird watching, and hiking are popular activities at the lake and the adjacent wetlands of the wildlife area. State- and federally-listed rare, threatened and/or endangered native plant species have adapted to the alkaline soils and alternating wet and dry conditions found around the lake.



**Figure 5.8.4.5.1. Mystic Lake in 2006.** In this image the Lake is almost completely filled. Lake Perris is located approximately four miles to the west of the lake.



**Figure 5.8.4.5.2. Mystic Lake is popular for waterfowl hunting and bird watching.** Photo by Tom Paulek, CDFG San Jacinto Wildlife Area Manager, date unknown.



**Figure 5.8.4.5.3. Mystic Lake in 2009.** The Lake had completely dried up from its near full condition in 2006 (as shown in Figure 5.8.4.5.1) as a result of four years of below average rainfall.

Recommendations regarding beneficial use designations are as follows:

- **MUN** (Municipal and Domestic Supply): MUN is not an existing use and cannot be feasibly attained in the future given the ephemeral nature of the lake. An exception from the MUN designation is appropriate pursuant to the Sources of Drinking Water Policy since the lake cannot reliably or consistently supply a well capable of an average sustained yield of 200 gallons per day.
- **REC1** (Water Contact Recreation (proposed “Primary Contact Recreation”): REC1 is a presumptive use unless and until an UAA is completed that documents otherwise. Given the ephemeral nature of the lake, an intermittent (I) designation is appropriate.
- **REC2** (Non-contact Water Recreation): The lake (and surrounding areas) are popular for duck hunting and bird watching.
- **BIOL** (Preservation of Biological Habitats of Special Significance): The lake is part of the San Jacinto Wildlife Area which is owned, operated and managed by CDFG.
- **WILD** (Wildlife Habitat): The lake provides habitat that supports a variety of wildlife species, including birds and mammals.
- **WARM** (Warm Freshwater Habitat): The Lake intermittently (I) supports a warmwater ecosystem.
- **RARE** (Rare, Threatened or Endangered Species): The CDFG Natural Diversity database documents the presence of the following endemic plants species listed as rare, threatened and/or endangered that occupy the lake bed and adjacent areas: San Joaquin Crownscale (*Atriplex coronata*), thread-leaved brodiaea (*Brodiaea filifolia*), smooth tarplant (*Centromadeia pungens ssp*) and the spreading narravatia (*Navarretia fossalis*).

#### 5.8.4.6 Goodhart Canyon Creek

Board staff proposes adding Goodhart Canyon Creek to the Basin Plan because the creek now drains into Region 8. Goodhart Canyon Creek, which drains 3.65 square miles along the Region’s southern boundary in Riverside County, has been diverted to flow into Salt Creek by Metropolitan Water District’s (MWD) construction of the Diamond Valley Reservoir (Reservoir)<sup>7</sup>. Before construction of the Reservoir, Goodhart Canyon

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<sup>7</sup> MWD completed construction of the Diamond Valley Reservoir in 2002. As part of the reservoir project, MWD acquired the area to the east of the East Dam and the Reservoir. In this area, Goodhart Canyon Creek and St. John’s Canyon Creek have been modified to converge into one channel that flows to the north under Domenigoni Parkway and into Salt Creek.

Creek was part of the Santa Margarita River watershed<sup>8</sup> and within the boundaries of the San Diego Regional Water Quality Control Board (Region 9) (San Diego Region).

Goodhart Canyon Creek and its tributary, Pixley Canyon Creek, are listed in the 1995 Water Quality Control Plan (Basin Plan) for the San Diego Region. In 2003, San Diego Region staff acknowledged in a staff report that Goodhart Canyon Creek and Pixley Canyon Creek were no longer in the San Diego Region.

The Goodhart Canyon Creek drainage land use is rural, with scattered homes and small ranches. The creek flows intermittently. Regional Board staff observed in June of 2010 that the creek channel was completely dry with no areas of standing water. The most downstream section of the creek has been modified for flood control purposes, with an engineered channel and rip rap side slopes. This modified section of the channel empties into the Goodhart Detention Basin, east of the Reservoir's East Dam (see Figure 5.8.4.6.1). Discharges from this detention basin are conveyed across MWD property to Salt Creek.

Recommendations regarding beneficial use designations are as follows:

- **MUN** (Municipal and Domestic Supply): MUN is not an existing use and cannot feasibly be attained because of the intermittent nature of flows in the creek, which cannot reliably and consistently supply a well capable of producing an average, sustained yield of 200 gallons per day. Portions of the creek have been modified for flood control purposes. An exception from MUN designation is appropriate pursuant to the Sources of Drinking Water Policy.
- **REC1** (Water Contact Recreation (proposed "Primary Contact Recreation")): The REC1 is a presumptive use unless and until an UAA is completed that documents otherwise. Given the ephemeral nature of the creek, an intermittent (I) designation is appropriate.
- **REC2** (Non-contact Water Recreation): The creek provides opportunity for non-contact water recreation such as sightseeing and bird watching.
- **WILD** (Wildlife Habitat): The creek supports habitat for a variety of wildlife species, including birds and mammals.
- **WARM** (Warm freshwater habitat): A "fishable use" is presumptive unless and until an UAA is completed that demonstrates otherwise. Given the intermittent nature of flows of the creek, an intermittent (I) WARM designation is appropriate.
- **AGR** (Agricultural Supply): Regional Board staff observed a stock pond dam across a section of the creek channel. Given the numerous ranches and small

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<sup>8</sup> Domenigoni Valley Reservoir Project, The MWD of Southern California Agreement No. 4761, Memorandum of Understanding on Operation of Domenigoni Valley Reservoir. November 1994

farms in the area, there is at least the potential for creek water to be used for agricultural purposes, when water is present. An intermittent designation is appropriate. The creek was designated with the AGR use in the 1995 edition of the Basin Plan for the San Diego Region.

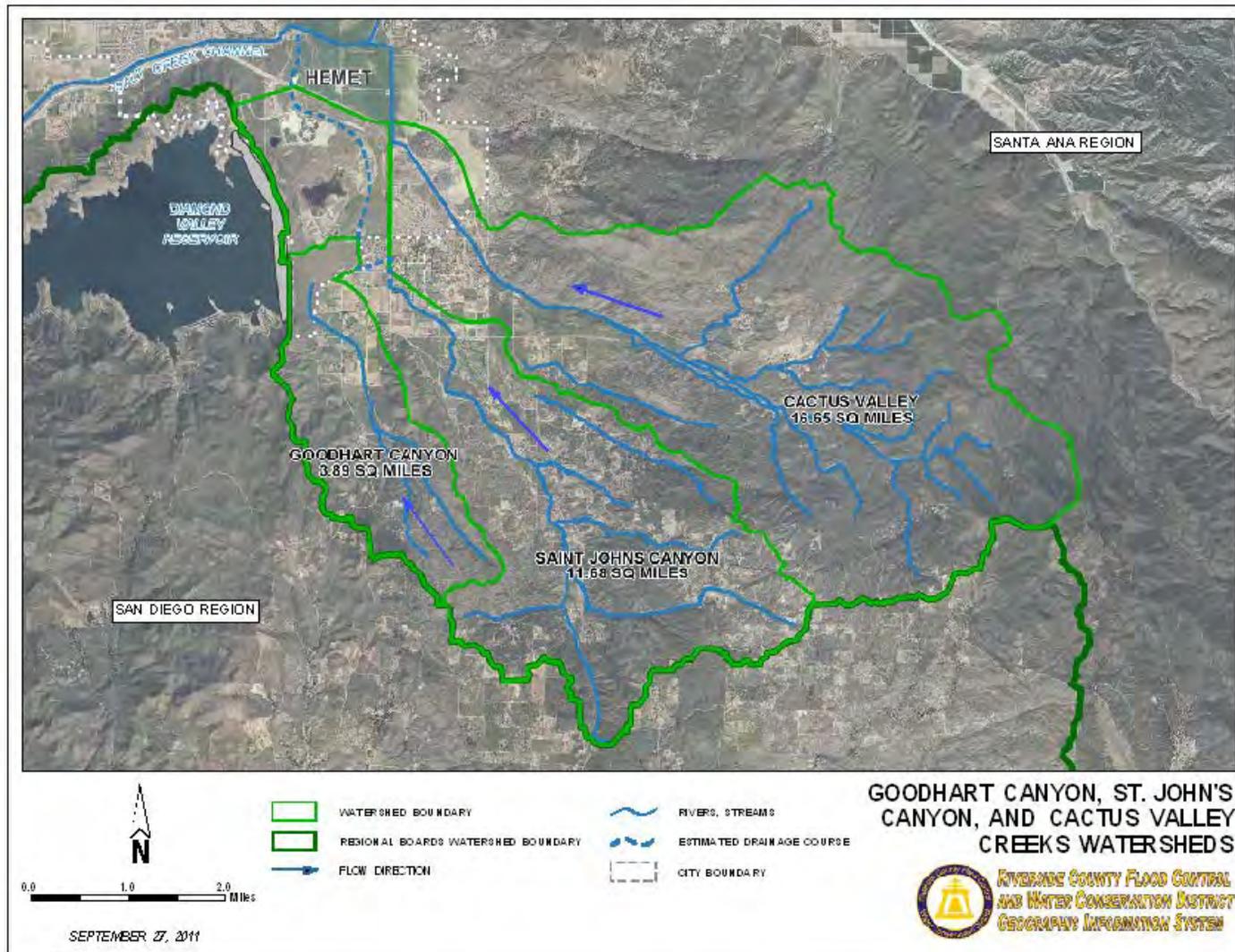


Figure 5.8.4.6.1



**Figure 5.8.4.6.2. Goodhart Canyon Creek as it empties into a detention basin near the Diamond Valley Reservoir East Dam.** Photograph by Regional Board Staff 2010.

#### **5.8.4.7 St. John's Canyon Creek**

The St. John's Canyon Creek watershed is adjacent and to the east of the Goodhart Canyon Watershed (See Figure 5.8.4.6.1). The watershed covers 9.63 square miles. There are small ranches scattered throughout the watershed. County Route R3, known as State Street in the City of Hemet and Sage Road in this watershed, travels through St. John's Canyon and crosses the watershed boundary into the San Diego Region.

St. John's Canyon Creek flows intermittently and beneficial uses are recommended to be shown as intermittent (I). Regional Board staff observed very dry conditions (i.e., no flowing or standing water) in the creek in June of 2010. The most downstream section has been modified for flood control purposes into an engineered channel with rip rap side slopes, transitioning into a concrete-lined channel (see Figure 5.8.4.7.1) The Goodhart Canyon Detention Basin empties into the St. John's Canyon Creek channel in this area. From this point, the creek flows across MWD property and into Salt Creek.

Recommendations regarding beneficial use designations are as follows:

- **MUN** (Municipal and Domestic Supply): MUN is not an existing use and cannot feasibly be attained because of the intermittent nature of flows in the creek, which cannot reliably and consistently supply a well capable of producing an

average, sustained yield of 200 gallons per day. Further, portions of the creek have been modified for flood control purposes. An exception from MUN designation is appropriate pursuant to the Sources of Drinking Water Policy.

- **REC1** (Water Contact Recreation (proposed “Primary Contact Recreation”): REC1 is a presumptive use unless and until an UAA is completed that documents otherwise. Given the ephemeral nature of the creek, an intermittent (I) designation is appropriate.
- **REC2** (Non-contact Water Recreation): The creek provides opportunities for non-contact water recreation, such as hiking or bird watching.
- **WILD** (Wildlife Habitat): The Creek supports habitat for a variety of wildlife species, including birds and mammals.
- **WARM** (Warm Freshwater Habitat): A “fishable use” is presumptive unless and until an UAA is completed that demonstrates otherwise. Given the intermittent nature of Creek flows, an intermittent (I) WARM designation is appropriate.
- **AGR** (Agricultural Supply): Regional Board staff observed livestock grazing and some irrigated farming indicating a reasonable potential for use of creek water for agriculture when water is present



**Figure 5.8.4.7.1. St. John's Canyon Creek near the Diamond Valley Reservoir East Dam, facing to the South.** Photograph by Regional Board Staff 2010.

#### **5.8.4.8 Cactus Valley Creek**

The Cactus Valley Creek drainage area is east of and adjacent to the St. John's Canyon drainage area (See Figure 5.8.4.6.1). The Cactus Valley Creek drainage area is approximately 15.26 square miles. The upper part of this drainage area features rugged, craggy hills, and the lower part flattens out and merges into the floor of the Hemet Valley. Cactus Valley Creek flows intermittently with braided channels in sections as noted by Regional Board staff and beneficial uses are recommended to . The upper part of the drainage is rural and sparsely populated, while the lower part of the drainage area has been recently developed into a large residential complex. The lower reach of the creek has been channelized and collects runoff from the development. The channelized section flows alongside State Street to the north before entering into Salt Creek. Given the intermittent nature of flows in the creek, intermittent use designations are appropriate.

Recommendations regarding beneficial use designations are as follows:

- **MUN** (Municipal and Domestic Supply): MUN is not an existing use and cannot feasibly be attained because of the intermittent nature of flows in the creek, which cannot reliably and consistently supply a well capable of producing an average, sustained yield of 200 gallons per day. Further, portions of the creek

have been modified for flood control purposes. An exception from MUN designation is appropriate pursuant to the Sources of Drinking Water Policy.

- **REC1** (Water Contact Recreation (proposed “Primary Contact Recreation”): REC1 is a presumptive use unless and until an UAA is completed that documents otherwise. Given the ephemeral nature of the creek, an intermittent (I) designation is appropriate.
- **REC2** (Non-contact Water Recreation): The creek provides opportunities for non-contact water recreation, such as hiking or bird watching.
- **WILD** (Wildlife Habitat): The Creek supports habitat for a variety of wildlife species, including birds and mammals.
- **WARM** (Warm Freshwater Habitat): A “fishable use” is presumptive unless and until an UAA is completed that demonstrates otherwise. Given the intermittent nature of Creek flows, an intermittent (I) WARM designation is appropriate.
- **AGR** (Agricultural Supply): Board staff observed signs of livestock grazing and irrigated agriculture in the area indicating a reasonable potential for use of the creek water for agriculture when water is present.



**Figure 5.8.4.8.1. Cactus Valley Creek.** The upper reach of the Creek exhibits braided channels and intermittent flow conditions. Photograph by Regional Board Staff, 2010.

## **5.8.5 Revision of Table 3-1: Temescal Creek**

### **5.8.5.1 Reach 1**

As discussed in detail in the discussion of the UAA for this reach of Temescal Creek (see Section 5.6.5), subdivision of the reach into two Reaches (1a and 1b) is recommended. Both reaches lie within the city of Corona. The Basin Plan currently designated beneficial uses for Reach 1. The same use designations are proposed to apply to Reaches 1a and 1b, except that, based on the UAA, the REC1 designation should not be listed for either reach and, additionally, the REC2 designation should not be listed for Reach 1b.

### **5.8.5.2 Temescal Creek, Reaches 2 and 4**

Flows in these reaches of the creek are now perennial, rather than intermittent. Accordingly, the beneficial use designations for these reaches should be modified from intermittent (“I”) to existing or potential (“X”).

## **5.8.6 Addition of SPWN/ RARE designations for Reach 3 and 4 of the Santa Ana River and Sunnyslope Channel**

Changes to the beneficial use designations for Reach 3 and 4 of the Santa Ana River and Sunnyslope Channel are proposed as follows:

- Santa Ana River Reach 3: add Spawning, Reproduction and Development (SPWN) beneficial use;
- Santa Ana River Reach 4: add SPWN and Rare, Threatened or Endangered Species (RARE) beneficial uses;
- Sunnyslope Channel: add RARE beneficial use.

Extensive surveys conducted by the Santa Ana Sucker Conservation Team over the last several years have shown that Reach 3 and 4 of the Santa Ana River and the Sunnyslope Channel currently provide important habitat for the federally listed Santa Ana sucker (*Catostomus santaanae*).

## **5.8.7 Revision of Table 3-1: Cucamonga Creek, Reach 1**

As discussed in detail in the discussion of the UAA for Cucamonga Creek (see Section 5.6.6), neither REC1 nor REC2 should be designated for this Reach. No other changes to the beneficial use designations now in the Basin Plan for this reach are proposed.

## **5.8.8 Revision of Table 3-1: Knickerbocker Creek**

Knickerbocker Creek is a tributary of Big Bear Lake that drains into the lake in the City of Big Bear Lake. The creek’s headwaters are high in the ridge of mountains to the

south of Big Bear Lake. The creek channel transitions from a natural channel into a small narrow concrete box channel near Village Drive<sup>9</sup> in the City of Big Bear Lake and then empties into the lake near the Pine Knott Landing harbor. Knickerbocker Creek is currently listed in Table 3-1 of the Basin Plan together with other tributaries of Big Bear Lake (Basin Plan, page 3-27) in a row in the table as “Other Tributaries to Big Bear Lake:”

Knickerbocker Creek is an important tributary of Big Bear Lake that warrants separate recognition, rather than inclusion in a list of tributaries as now specified in the Basin Plan. Because of the two distinct channel morphologies, two distinct reaches (1 and 2) should be identified. Changes to Table 3-1 are recommended accordingly.

The proposed Reaches would be defined as:

Reach 1: From the Big Bear Lake Boundary (at the 6743.25 ft. elevation) to 100 yards upstream of Village Drive, a distance of 0.36 mile.

Reach 2: Village Drive upstream to the headwaters.

No changes are proposed to the beneficial use designations currently identified in the Basin Plan for Knickerbocker Creek. These designations would apply to both of the proposed reaches. Given the intermittent nature of flows in both of the proposed reaches, the use designations would continue to be shown as intermittent (“I”).

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<sup>9</sup> Approximately 100 yards upstream of Village Drive, Knickerbocker Creek transitions into an earthen channel.



**Figure 5.8.8.1. Knickerbocker Creek.** The Creek channel consists of a concrete box as it flows through this section of the City of Big Bear Lake. The channel upstream of the City is in a natural condition. Photograph by Regional Board staff 2010.

## **5.8.9 Revision of Table 3-1: Waters to be Removed from the Basin Plan**

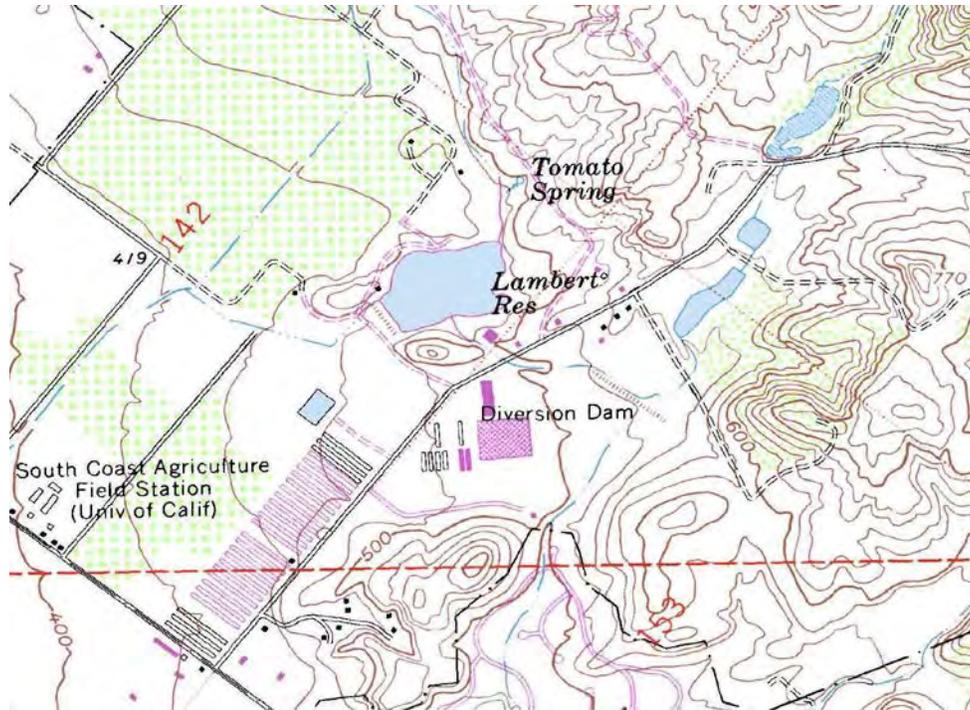
### **5.8.9.1 Lambert Reservoir**

Lambert Reservoir is currently listed in the Basin Plan in Tables 3-1 and 4-1 under the section Lake and Reservoirs, Lower Santa Ana River Basin with the AGR, REC1, REC2, WARM, and WILD beneficial uses designated and the MUN use excepted (Basin Plan, page 3-36). Lambert Reservoir and dam were located in the north eastern section of the City of Irvine just south of Portola Parkway. Lambert Reservoir was constructed to hold irrigation water for use in the surrounding agricultural areas.

In the early 2000's, the Lambert Reservoir dam was removed and the reservoir drained. As a result, the water body no longer exists and is proposed to be removed from the list of waters in Table 3-1 (and Table 4-1).



Figure 5.8.9.1.1 Former Lambert Reservoir site in 2011.

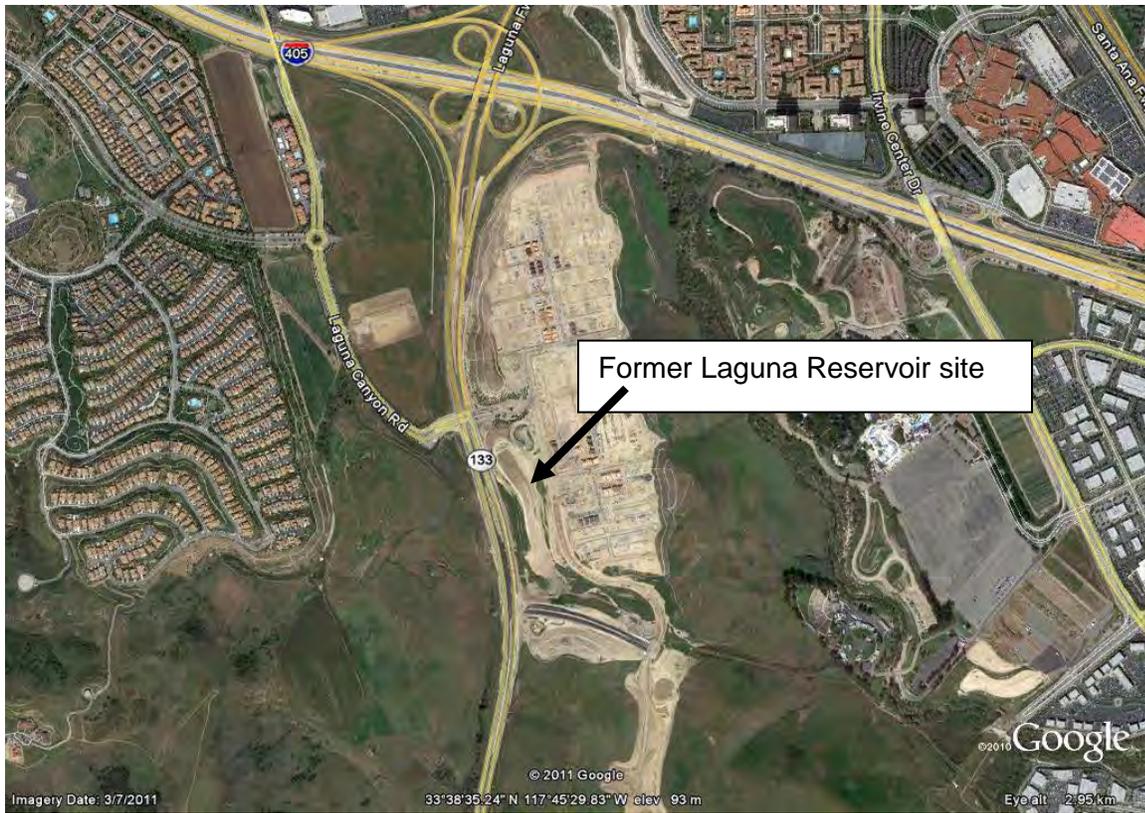


**Figure 5.8.9.1.2. Lambert Reservoir location as shown in USGS El Toro Quadrangle Map 1997.**

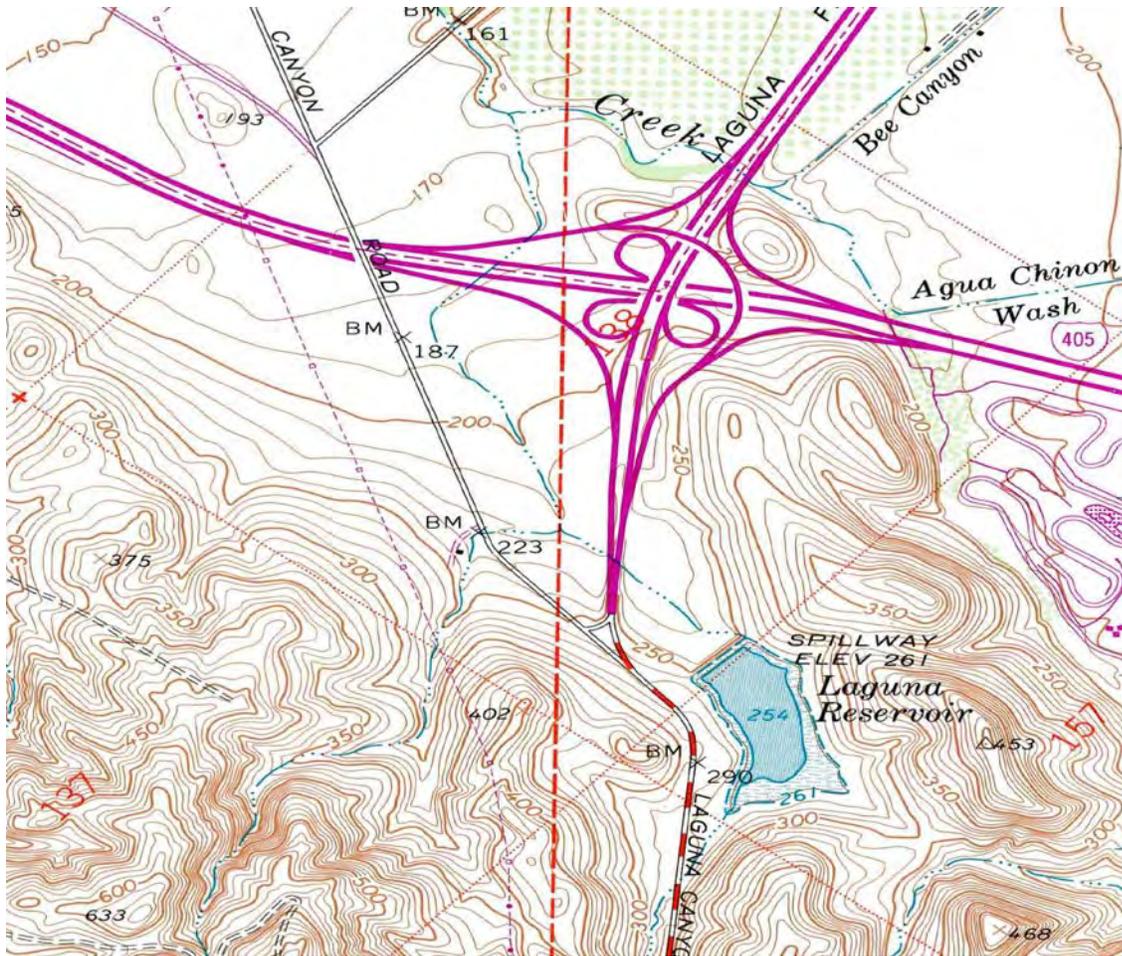
### **5.8.9.2 Laguna Reservoir**

Laguna Reservoir is currently listed in the Basin Plan in Tables 3-1 and 4-1 under the section Lake and Reservoirs, Lower Santa Ana River Basin, with the AGR, REC1, REC2, WARM, and WILD beneficial uses designated and the MUN use excepted (Basin Plan, page 3-36). Laguna Reservoir was located in the City of Irvine just east of Laguna Canyon Road, State Highway 133, and was constructed and used to hold irrigation water.

In ~2005, the dam impounding the Laguna Reservoir was removed and the Reservoir was drained. As a result, the water body no longer exists and is proposed to be removed from the list of waters in Table 3-1 (and Table 4-1).



**Figure 5.8.9.2.1. Former Laguna Reservoir site in 2011.**



**Figure 5.8.9.2.2. Laguna Reservoir location as shown in USGS Tustin Quadrangle 1965, Photo Revised 1981.**

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