

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

California Regional Water Quality Control Board, San Diego Region

March 11, 2014

Certified Mail – Return Receipt Requested

Article Number: 7011 0470 0002 8961 8118

Mr. John Conley
City of Vista
600 Eucalyptus Avenue
Vista, CA 92084

**In reply/refer to:
amonji:726988**

Subject: Amendment No. 1 to Clean Water Act Section 401 Water Quality Certification No. 08C-068 for the City of Vista Storm Water Conveyance System Maintenance Project

Mr. Conley:

Enclosed find Amendment No. 1 for Clean Water Act Section 401 Water Quality Certification No. 08C-068 (Certification Amendment) issued by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) in response to an amendment request submitted by the City of Vista (City) for the Storm Water Conveyance System Maintenance Project (Project). The Certification Amendment shows changes in redline/strikeout format to indicate added and removed language. Water Quality Certification No. 08C-068 has also been enclosed for your reference.

On November 22, 2013 the Project consultant, on behalf of the City, requested the Certification expiration date be extended an additional five (5) years so that Project activities can be continued to maintain capacity of the City's storm water conveyance systems. The current term of the Certification is from March 26, 2009 through March 26, 2014. Based on the City's request, the San Diego Water Board is amending the Certification to extend the term to March 26, 2019 or the expiration or retraction of the Clean Water Act section 404 (33 U.S.C. §1344) permit issued by the U.S. Army Corps of Engineers for this Project, whichever comes first.

Failure to comply with this Certification Amendment may subject the City to enforcement actions by the San Diego Water Board including administrative enforcement orders requiring the City to cease and desist from violations or to clean up waste and abate existing or threatened conditions of pollution or nuisance; administrative civil liability in amounts of up to \$10,000 per day per violation; referral to the State Attorney General for injunctive relief; and, referral to the District Attorney for criminal prosecution.

Any petition for reconsideration of this Certification Amendment must be filed with the State Water Resources Control Board within 30 days of certification action pursuant to section 3867 of Title 23 of the California Code of Regulations (23 CCR). If no petition is received, it will be

assumed that the City has accepted and will comply with all terms and conditions of the Certification Amendment.

In the subject line of any response, please include reference number amonji:726988. For questions or comments, please contact Alan Monji by telephone at (619) 521-3968 or by email at alan.monji@waterboards.ca.gov.

Respectfully,



DAVID W. GIBSON
Executive Officer

Enclosure:

Amendment No. 1 to Clean Water Act Section 401 Water Quality Certification No. 08C-068

Clean Water Act Section 401 Water Quality Certification No. 08C-068 for the City of Vista Storm Water Conveyance System Maintenance Project

DWG:jgs:db:kd:atm

cc:

U.S. Army Corps of Engineers, Regulatory Branch
San Diego Field Office
Meris Bantilan-Smith
Meris.Bantilan-Smith@usace.army.mil

California Department of Fish and Wildlife
South Coast Region
Habitat Conservation Planning – South
Marilyn Fluharty
mfluharty@wildlife.ca.gov

U.S. EPA, OWOW, Region 9
R9-WTR8-Mailbox@epa.gov

State Water Resources Control Board, Division of Water Quality
401 Water Quality Certification and Wetlands Unit
Stateboard401@waterboards.ca.gov

Tricia Wotipka Priest
Dudek
Twotipka@dudek.com

Tech Staff Info & Use	
Certification No.	08C-068
Party ID	382738
WDID	9 000001839
Regulatory ID	352823
Place ID	726988
Person ID	69129



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

California Regional Water Quality Control Board, San Diego Region

PROJECT: City of Vista Storm Water Conveyance System Maintenance Water Quality Certification No. 08C-068

APPLICANT: ~~Attention: Mr. John Conley~~
City of Vista
600 Eucalyptus Avenue
Vista, CA 92084

WDID	9 000001839
CIWQS:	
Party No.	382738
Person No.	69129
Place No.	726988
Reg. M. No.	352823

The following changes have been made to Clean Water Act Section 401 Water Quality Certification No. 08C-068, City of Vista Storm Water Conveyance System Maintenance Project. Changes below are shown in redline/strikeout format to indicate added and removed language.

1. Page 2, STANDARD CONDITIONS is replaced as follows:

Pursuant to section 3860 of title 23 of the California Code of Regulations, the following three standard conditions apply to all water quality certification actions:

- A. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the Water Code and chapter 28, article 6 (commencing with title 23, section 3867), of the California Code of Regulations.
- B. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to California Code of Regulations title 23, section 3855 subdivision (b), and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
- C. This Certification action is conditioned upon total payment of any fee required under title 23, chapter 28 (commencing with section 3830) of California Code of Regulations and owed by the applicant.

2. Page 2, General Condition A.2 is replaced as follows:

Term of Certification. Water Quality Certification No. 08C-068 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 U.S.C. §1344) permit issued by the U.S. Army Corps of Engineers for this Project, or b) March 26, 2019, whichever occurs first.

3. Page 5, MITIGATION Condition 1 is modified as follows:

Permanent impacts must not exceed 0.300-acre (905 linear feet) of vegetated and non-vegetated Waters of the U.S. and State annually. Impacts are limited to trimming/cutting of native and non-native plant species and removal of accreted sediment and debris.

4. Page 5, MITIGATION Condition 2 is modified as follows:

Permanent impacts must not exceed 0.15-acre (1040-linear feet) of vegetated Waters of the State annually. Impacts are limited to trimming/cutting of riparian native and non-native plant species in Department of Fish and Game Wildlife jurisdiction.

5. Page 11, REPORTING Condition 6 is modified as follows:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
Attn: 401 Certification No. 08C-068
9174 Sky Park Court 2375 Northside Drive, Suite 100
San Diego, California 9212392108

6. Page 12, REGIONAL WATER QUALITY CONTROL BOARD CONTACT PERSON is modified as follows:

Mike Porter Alan Monji
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court 2375 Northside Drive, Suite 100
San Diego, CA 9212392108
858-467-2726 619-521-3968
mporter@alan.monji@waterboards.ca.gov

7. ATTACHMENT 1, Applicant Representatives is modified as follows:

~~Mr. Keith Merkel, Principal~~Tricia Wotipka-Priest
~~Merkel & Associates~~Dudek
~~5434 Ruffin Road~~605 Third Street
~~San Diego, CA 92123~~Encinitas, CA 92024
Telephone: ~~760-479-4292~~760-942-5147
Facsimile: ~~760-479-4198~~760-632-0164
Email: ~~kmerkel@merkeline.com~~twotipka@dudek.com

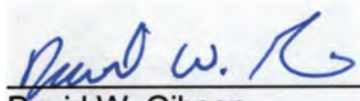
8. ATTACHMENT 1, Federal Agency/Permit is modified as follows:

U.S. Army Corps of Engineers §404, Regional General Permit, ~~Ms. Laurie~~
~~Monarres~~Meris Bantilan-Smith

9. ATTACHMENT 1, Other Required Regulatory Approvals is modified as follows:

California Department of Fish and ~~Game~~Wildlife Streambed Alteration Agreement,
~~Ms. Tamara Spear~~Marilyn Fluharty.

I, David W. Gibson, Executive Officer, do hereby certify the forgoing is a full, true, and correct copy of Amendment No.1 to Certification No. 08C-068 issued on March 11, 2014.



David W. Gibson
Executive Officer
Regional Water Quality Control Board

3-11-2014
Date



California Regional Water Quality Control Board

San Diego Region



Linda S. Adams
Secretary for
Environmental
Protection

Over 50 Years Serving San Diego, Orange, and Riverside Counties
Recipient of the 2004 Environmental Award for Outstanding Achievement from USEPA

Arnold
Schwarzenegger
Governor

9174 Sky Park Court, Suite 100, San Diego, California 92123-4340
(858) 467-2952 • Fax (858) 571-6972
<http://www.waterboards.ca.gov/sandiego>

March 26, 2009

Certified Mail No. 7008 1140 0004 9971 8962

John Conley
City of Vista
600 Eucalyptus Avenue
Vista, CA 92084

In reply, please refer to:

WDID	9 000001839
CWIQS:	
Reg. Measure	352823
Place	726988
Party	382738
Person	69129

SUBJECT: Action on Request for Clean Water Act Section 401 Water Quality Certification for the City of Vista Storm Water Conveyance System Maintenance Project, Water Quality Certification No. 08C-068

Dear Mr. Conley:

Enclosed is the Clean Water Act Section 401 Water Quality Certification for the **City of Vista Storm Water Conveyance System Maintenance Project**. A description of the project and project location can be found in the project information sheet, project location map, and project site maps which are included as Attachments 1 through 5. Any petition for reconsideration of this Certification must be filed with the State Water Resources Control Board within 30 days of certification action (23 CCR § 3867). If no petition is received, it will be assumed that the City of Vista has accepted and will comply with all conditions of the Certification. Failure to comply with all conditions of this Certification may result in enforcement actions against the City of Vista.

The heading portion of this letter includes a Regional Board code number noted after "In reply, refer to:" In order to assist us in the processing of your correspondence please include these codes number in the heading or subject line portion of all correspondence and reports to the Regional Board pertaining to this matter.

If you have any questions regarding this notification, please call Mike Porter directly at (858) 467-2726 or via email at mporter@waterboards.ca.gov.

Respectfully,

JOHN H. ROBERTUS
Executive Officer

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at <http://www.swrcb.ca.gov>.

Recycled Paper



Mr. Conley
401 Certification 08C-068

March 26, 2009

Enclosure:

Clean Water Act Section 401 Water Quality Certification No. 08C-068 for the City of Vista Storm Water Conveyance System Maintenance Project, with 5 attachments.

CC: Refer to Attachment 2 of Certification 08C-068 for Distribution List.

California Environmental Protection Agency

 Recycled Paper



Linda S. Adams
Acting Secretary for
Environmental
Protection

California Regional Water Quality Control Board San Diego Region

Over 50 Years Serving San Diego, Orange, and Riverside Counties
Recipient of the 2004 Environmental Award for Outstanding Achievement from USEPA



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9174 Sky Park Court, Suite 100, San Diego, California 92123-4340
(858) 467-2952 • Fax (858) 571-6972
<http://www.waterboards.ca.gov/sandiego>

Action on Request
for
Clean Water Act Section 401 Water Quality Certification
and
Waste Discharge Requirements
for
Discharge of Dredged and/or Fill Materials

PROJECT: City of Vista Storm Water Conveyance
System Maintenance Project
Water Quality Certification No. 08C-068

WDID	9 000001839
CWQS	
Reg. Measure	352823
Place	726988
Party	382738
Person	69129

APPLICANT: Mr. John Conley
City of Vista
600 Eucalyptus Avenue
Vista, CA 92084

ACTION:

<input type="checkbox"/> Order for Low Impact Certification	<input type="checkbox"/> Order for Denial of Certification
<input checked="" type="checkbox"/> Order for Technically-conditioned Programmatic Certification	<input type="checkbox"/> Waiver of Waste Discharge Requirements
<input checked="" type="checkbox"/> Enrollment in SWRCB GWDR Order No. 2003-017 DWQ	<input type="checkbox"/> Enrollment in Isolated Waters Order No. 2004-004 DWQ

PROJECT DESCRIPTION:

The proposed project is the recurring removal of debris, sediment, and vegetation (native and mostly exotic) by hand and equipment within and around drainage structures at 33 sites throughout the City of Vista. Only sediment within the first 20 feet of the structure will be removed. Stream channel width will not be increased as a result of sediment removal, and channel elevations will not be altered beyond that which restores the original functioning system. The purpose of the project is to prevent flooding to nearby roads or buildings due to blocked or reduced capacity of the storm water conveyance system.

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at <http://www.swrcb.ca.gov>.

Recycled Paper



STANDARD CONDITIONS:

The following three standard conditions apply to all certification actions, except as noted under Condition 3 for denials (Action 3).

1. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the California Water Code and section 3867 of Title 23 of the California Code of Regulations (23 CCR).
2. This certification action is not intended and must not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. The validity of any non-denial certification action (Actions 1 and 2) must be conditioned upon total payment of the full fee required under 23 CCR section 3833, unless otherwise stated in writing by the certifying agency.

ADDITIONAL CONDITIONS:

In addition to the three standard conditions, the City of Vista must satisfy the following:

A. GENERAL CONDITIONS:

1. The City of Vista must, at all times, fully comply with the engineering plans, specifications and technical reports submitted to the California Regional Water Quality Control Board, San Diego Region (Regional Board), to support this 401 Water Quality Certification and all subsequent submittals required as part of this certification and as described in Attachment 1. The conditions within this certification must supersede conflicting provisions within such plans submitted prior to the certification action. Any modifications thereto, would require notification to the Regional Board and reevaluation for individual Waste Discharge Requirements and/or certification amendment.
2. Water Quality Certification No. 08C-068 expires **5 years** after issuance.
3. During maintenance activities, the City of Vista must maintain a copy of this certification at the project site so as to be available at all times to site personnel and agencies.

4. The City of Vista must permit the Regional Board or its authorized representative at all times, upon presentation of credentials:
 - a. Entry onto project premises, including all areas on which wetland fill or wetland mitigation is located or in which records are kept.
 - b. Access to copy any records required to be kept under the terms and conditions of this certification.
 - c. Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this certification.
 - d. Sampling of any discharge or surface water covered by this Order.
5. The City of Vista must notify the Regional Board within **24 hours** of any unauthorized discharge, including hazardous or toxic materials, to waters of the U.S. and/or State; measures that were implemented to stop and contain the discharge; measures implemented to clean-up the discharge; the volume and type of materials discharged and recovered; and additional best management practice (BMPs) or other measures that will be implemented to prevent future discharges.
6. The City of Vista must, at all times, maintain appropriate types and sufficient quantities of materials onsite to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the U.S. and/or State.
7. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation must be subject to any remedies, penalties, process or sanctions as provided for under State law. For purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification.
8. In response to a suspected violation of any condition of this certification, the Regional Board may require the holder of any permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the Regional Board deems appropriate, provided that the burden, including costs, of the reports must bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

9. In response to any violation of the conditions of this certification, the Regional Board may add to or modify the conditions of this certification as appropriate to ensure compliance.
10. The City of Vista must submit annual progress reports to the Regional Board, prior to **August 1** of each year following the issuance of this certification, that reports on the status of impacts (i.e., sites, frequency, acreage completed the prior year and projected for the year to come), mitigation, and compliance with project conditions.
11. The City of Vista must, **prior to termination of this Certification**, submit a final report summarizing the frequency and maintenance at each site and any proposed corrective measures to minimize impacts from recurring maintenance.

B. PROJECT CONDITIONS:

1. Prior to the start of the project, and annually thereafter, the City of Vista must educate all personnel on the requirements in this certification, pollution prevention measures, spill response, and Best Management Practices implementation and maintenance.
2. The City of Vista must comply with the requirements of State Water Resources Control Board Water Quality Order No. 2003-0017-DWQ, Statewide General Waste Discharge Requirements for discharges of dredged or fill material that have received State Water Quality Certification. These General Waste Discharge Requirement are accessible at:
http://www.waterboards.ca.gov/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf.
3. The City of Vista must notify the Regional Board in writing at least **5 days** prior to the actual commencement of maintenance activities at each site each time that impacts are to occur.
4. The coffering of and rerouting of stream flows is prohibited.
5. Water containing mud, silt, or other pollutants from equipment washing or other activities, must not be discharged to waters of the United States and/or the State or placed in locations that may be subjected to storm flows. Pollutants discharged to areas within a stream diversion area must be removed at the end of each work day or sooner if rain is predicted.

C. MAINTENANCE BEST MANAGEMENT PRACTICES:

1. Maintenance Best Management Practices (BMPs) as described in the Application for Water Quality Certification, page 3 of 9, must be implemented. These BMPs must include, but not be limited to:
 - a. Erosion control.
 - b. Sediment control.
 - c. Construction exit control.
 - d. Silt fencing.
 - e. Material and waste control (no staging or storage areas next to work sites).
2. The City of Vista Sediment Stockpiling Management Plan (Plan) (Merkel & Associates and City of Vista Public Services, December 2008) must be implemented as proposed. The Plan proposes how excavated sediment, debris, and removed vegetation will be stockpiled at the City of Vista's materials management facility. At the facility, material will be separated, dried, analytically tested for contaminants, and either recycled as compost or disposed of at a landfill.

D. MITIGATION

1. Permanent impacts must not exceed 0.300-acre (905 linear feet) of vegetated and non-vegetated Waters of the U.S. and State. Impacts are limited to trimming/cutting of native and non-native plant species and removal of accreted sediment and debris.
2. Permanent impacts must not exceed 0.15-acre (1040-linear feet) of vegetated Waters of the State. Impacts are limited to *trimming/cutting* of riparian native and non-native plant species in Department of Fish and Game jurisdiction.
3. For the purposes of this Certification, recurring impacts to the same site are considered one-time, permanent impacts to that site.
4. Mitigation is proposed in the Conceptual Wetland Mitigation Plan, City of Vista, Storm Water Conveyance System Maintenance Project (Merkel & Associates, March 17, 2009). Proposed mitigation must consist of the enhancement of 0.52-acre Southern willow scrub and enhancement of 0.38-acre of Freshwater marsh, for a total of 0.90-acre at the City of Vista's Sports Park Mitigation area. Proposed mitigation must not overlap with two other

Park Mitigation area. Proposed mitigation must not overlap with two other projects' mitigation areas: Vista Sports Park Creation Area; and Adobe Estates Creation Area.

5. The City of Vista must notify the Regional Board in writing at least **5 days** prior to the actual commencement of mitigation installation, and **5 days** after completion of mitigation installation.
6. Mitigation Site Preparation: The City of Vista must salvage leaf litter, coarse woody debris, and upper soil horizons from impacted jurisdictional water sites that are free of invasive exotic species for use in on-site mitigation areas.
7. The City of Vista must also salvage large cuttings from appropriate, native tree species if they exist at the impact site and use them as live pole plantings at the mitigation site.
8. *Within **90 days** of the issuance of this Certification, City of Vista must provide the Regional Board a draft preservation mechanism (e.g. deed restriction, conservation easement, etc.) that will protect all mitigation areas and their buffers in perpetuity. Within one year of the issuance of this Certification, the City of Vista must submit proof of a completed preservation mechanism that will protect all mitigation areas and their buffers in perpetuity. Construction of the site must not be initiated until a completed preservation mechanism is received. The conservation easement, deed restriction, or other legal limitation on the mitigation property must be adequate to demonstrate that the site will be maintained without future development or encroachment on the site which could otherwise reduce the functions and values of the site for the variety of beneficial uses of waters of the U.S. that it supports. The legal limitation must prohibit, without exception, all residential, commercial, industrial, institutional, and transportation development, and any other infrastructure development that would not maintain or enhance the wetland and streambed functions and values of the site. The preservation mechanism must clearly prohibit activities that would result in soil disturbance or vegetation removal, other than the removal of non-native vegetation. Other infrastructure development to be prohibited includes, but is not limited to, additional utility lines, maintenance roads, and areas of maintained landscaping for recreation.*
9. The City of Vista must submit a report (including topography maps and planting locations) to the Regional Board within **90 days** of completion of mitigation site preparation and planting, describing as-built status of the mitigation project.
10. The construction of proposed mitigation must be concurrent with project grading and completed no later than **9 months** following the initial discharge of dredge or fill material into on-site waters. Delays in implementing mitigation must be compensated for by an increased mitigation

implementation of 10% of the cumulative compensatory mitigation for each month of delay.

11. The mitigation site shall be designed and constructed to meet the following conditions:
 - a. Most of the channel through the mitigation site is characterized by equilibrium conditions, with no evidence of severe aggradation or degradation.
 - b. As viewed along cross-sections, the channel and buffer have a variety of slopes, or elevations, that are characterized by different moisture gradients. Each sub-slope contains physical patch types or features that contribute to irregularity in height, edges, or surface and to complex topography overall.
 - c. The mitigation site has a well-developed plant community characterized by a high degree of horizontal and vertical interspersion among plant zones and layers.
12. Throughout the mitigation monitoring program mitigation areas must be maintained free of perennial exotic plant species including, but not limited to, pampas grass, giant reed, tamarisk, sweet fennel, tree tobacco, castor bean, and pepper tree. Annual exotic plant species must not occupy more than 5 percent of the onsite or offsite mitigation areas.
13. Regional Board acceptance of the final mitigation plan applies only to the site and plan that mitigates for the City of Vista Storm Water System Maintenance project and must not be construed as approval of the mitigation site or plan for use by other current or future projects that are planning to use the City of Vista's Sports Park Mitigation area for mitigation.
14. Any maintenance activities that do not contribute to the success of the mitigation site and enhancement of beneficial uses and ecological functions and services are prohibited. Maintenance activities are limited to the removal of trash and debris, removal of exotic plant species, replacement of dead native plant species and remedial measures deemed necessary for the success of the restoration program.
15. If at any time during the implementation and establishment of the mitigation area(s), and prior to verification of meeting success criteria, a catastrophic natural event (e.g., fire, flood) occurs and impacts the mitigation area, the City of Vista is responsible for repair and replanting of the damaged area(s).
16. *Mitigation monitoring reports must be submitted annually until mitigation has been deemed successful by the Regional Board. Annual monitoring reports*

must be submitted prior to **December 1** of each year. Monitoring reports must include, but not be limited to, the following:

- a) Names, qualifications, and affiliations of the persons contributing to the report.
 - b) Tables presenting the raw data collected in the field as well as analyses of the physical and biological data, including at a minimum.
 - c) Topographic complexity characteristics at each mitigation site.
 - d) Upstream and downstream habitat and hydrologic connectivity.
 - e) Source of hydrology.
 - f) Width of native vegetation buffer around the entire mitigation site.
 - g) Qualitative and quantitative comparisons of current mitigation conditions with pre-construction conditions and previous mitigation monitoring results.
 - h) Photodocumentation from established reference points.
 - i) A Survey report documenting boundaries of mitigation area.
 - j) Other items specified in the Conceptual Wetland Mitigation Plan, City of Vista, Storm Water Conveyance System Maintenance Project (Merkel & Associates, September 16, 2008).
17. Responsible Party Updates: the City of Vista must provide the name and contact information of any third party accepting responsibility for implementing the mitigation requirements of this Certification. The notification must be submitted to the Regional Board within **30 days** of the transfer of responsibility. The notification must include a signed statement from the new party demonstrating acceptance and understanding of the responsibility to meet the mitigation conditions and applicable requirements of the Certification.
18. For the purpose of determining mitigation credit for the removal of exotic/invasive plant species, only the actual area occupied by exotic/invasive plant species must be quantified to comply with mitigation requirements.
19. For the purposes of this Certification:

- (a) Establishment is defined as the creation of vegetated or unvegetated waters of the U.S./State where the resource has never previously existed (e.g. conversion of nonnative grassland to a freshwater marsh).
- (b) Restoration is divided into two activities, re-establishment and rehabilitation.
 - (1) Re-establishment is defined as the return of natural/historic functions to a site where vegetated or unvegetated waters of the U.S./State previously existed (e.g., removal of fill material to restore a drainage).
 - (2) Rehabilitation is defined as the improvement of the general suite of functions of degraded vegetated or unvegetated waters of the U.S./State (e.g., removal of a heavy infestation or monoculture of exotic plant species from jurisdictional areas and replacing with native species).
- (c) Enhancement is defined as the improvement to one or two functions of existing vegetated or unvegetated waters of the U.S./State (e.g., removal of small patches of exotic plant species from an area containing predominantly natural plant species).
- (d) Preservation is defined as the acquisition and legal protection from future impacts in perpetuity of existing vegetated or unvegetated waters of the U.S./State (e.g., conservation easement).

E. P RE-PROJECT AND POST-PROJECT PHOTO DOCUMENTATION PROCEDURE:

The City of Vista must conduct photo documentation of project areas before and after maintenance activities. Photo-documentation must be modeled after the State Water Resources Control Board Standard Operating Procedure 4.2.1.4: Stream Photo Documentation Procedure, included as Attachment 5. In addition, photo documentation must include Global Positioning System (GPS) coordinates for each of the photo points referenced. The City of Vista must submit this information in a photo documentation report to the Regional Board no later than **30 days** after project completion at each site. The report must include a compact disc that contains digital files of all the photos (jpeg file type or similar).

F. GEOGRAPHIC INFORMATION SYSTEM REPORTING:

The City of Vista must submit Geographic Information System (GIS) shape files of the impact and mitigation areas within **30 days** of project impacts and the mitigation area within **30 days** of mitigation installation. All impact and mitigation areas shapefiles must be polygons. Two GPS readings (points) must be taken on each line of the polygon and the polygon must have a minimum of 10 points. GIS metadata must also be submitted.

G. REPORTING:

1. All information requested in this Certification is pursuant to California Water Code (CWC) section 13267. Civil liability may be administratively imposed by the Regional Board for failure to furnish requested information pursuant to CWC section 13268.
2. All reports and information submitted to the Regional Board must be submitted in both hardcopy and electronic format. The preferred electronic format for each report submission is one file in PDF format that is also Optical Character Recognition (OCR) capable.
3. All applications, reports, or information submitted to the Regional Board must be signed and certified as follows:
 - a. For a corporation, by a responsible corporate officer of at least the level of vice president.
 - b. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
 - c. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.
4. A duly authorized representative of a person designated in Items 3.a. through 3.c. above may sign documents if:
 - a. The authorization is made in writing by a person described in Items 3.a. through 3.c. above.
 - b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
 - c. The written authorization is submitted to the Regional Board Executive Officer.

5. All applications, reports, or information submitted to the Regional Board must be signed and certified as follows:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

6. The City of Vista must submit reports required under this certification, or other information required by the Regional Board, to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
Attn: 401 Certification No. 08C-068
9174 Sky Park Court, Suite 100
San Diego, California 92123

7. Required Reports: The following list summarizes the reports, including spill notifications and emergency situations, required per the conditions of this Certification to be submitted to the Regional Board.

Report Topic	Certification Condition	Due Date(s)
Unauthorized Discharges	A.5. Report within 24 hours.	Within 24 hours.
Annual Progress Reporting	A.10. Submit annual progress reports.	Annually before August 1 st .
Final Report	A.11. Submit a final report summarizing the frequency and maintenance at each site.	Prior to termination of Certification.
Impacts to Waters	B.3. Notify before impacting Waters of U.S. and State.	5 Days prior to impacts.
Mitigation	D.5. Notify prior to mitigation commencement and completion.	5 Days prior to installation & 5 days after completion.
Mitigation	D.8. Provide draft and final preservation mechanisms.	Within 90 days and one year of issuance of Certification.
Mitigation	D.9. Provide mitigation	Within 90 days of

	as-built mitigation report.	completion of mitigation site installation.
Mitigation	D.16. Provide annual mitigation monitoring reports.	Prior to December 1 of each year after installation of mitigation site.
Mitigation	D.17. Provide contact information for third party implementation of mitigation requirements.	Within 30 days of transfer of responsibility.
Photo Documentation	E. Provide photo documentation of project areas.	Within 30 days of project completion at each site.
GIS shapefiles	F. Submit GIS shapefiles of impacts and mitigation areas.	30 Days after impacts and 30 days after mitigation installation.

PUBLIC NOTIFICATION OF PROJECT APPLICATION:

On June 26, 2008 receipt of the project application was posted on the Regional Board web site to serve as appropriate notification to the public.


REGIONAL WATER QUALITY CONTROL BOARD CONTACT PERSON:

Mike Porter
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123
858-467-2726
mporter@waterboards.ca.gov

WATER QUALITY CERTIFICATION:

I hereby certify that the proposed discharge from the **City of Vista** (Certification No. 08C-068) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Board Order No. 2003-0017-DWQ, "Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification (General WDRs)," which requires compliance with all conditions of this Water Quality Certification. Please note that enrollment under Order No. 2003-017 DWQ is conditional and, should new information come to our attention that indicates a water quality problem, the Regional Board may issue individual waste discharge requirements at that time.

Except insofar as may be modified by any preceding conditions, all certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the applicants' project description and/or on the attached Project Information Sheet, and (b) on compliance with all applicable requirements of the Regional Water Quality Control Board's Water Quality Control Plan (Basin Plan).



JOHN H. ROBERTUS
Executive Officer
Regional Water Quality Control Board

3/26/2009
Date

- Attachments:
1. Project Information
 2. Distribution List
 3. Location Map
 4. Site Maps
 5. Stream Photodocumentation Procedure

**ATTACHMENT 1
PROJECT INFORMATION**

- Applicant: ✓ Mr. John Conley
City of Vista
600 Eucalyptus Avenue
Vista, CA 92084
Telephone: 760-726-1340
Facsimile: 760-639-6101
Email: jconley@ci.vista.ca.us
- Applicant
Representatives: ✓ Mr. Keith Merkel, Principal
Merkel & Associates
5434 Ruffin Road
San Diego, CA 92123
Telephone: 760-479-4292
Facsimile: 760-479-4198
Email: kmerkel@merkelinc.com
- Project Name: ✓ City of Vista (Certification 08C-068).
- Project Location: ✓ The project is spread over 33 sites within the City of Vista,
north-coastal San Diego County.
- Type of Project: ✓ Storm water conveyance system maintenance (ongoing).
- Project Description: ✓ The proposed project is the recurring removal of debris,
sediment, and vegetation (native and mostly exotic) by hand
and equipment within and around drainage structures at 33
sites throughout the City of Vista. Only sediment within the
first 20 feet of the structure will be removed. Stream channel
width will not be increased as a result of sediment removal,
and channel elevations will not be altered beyond that which
restores the original functioning system.
- Project Purpose: ✓ The purpose of the project is to prevent flooding to nearby
roads or buildings due to blocked or reduced capacity of the
storm water conveyance system.

Vista Storm Water
System Maintenance

Certification No. 08C-068

Federal
Agency/Permit:

U.S. Army Corps of Engineers §404, Regional General
Permit, Ms. Laurie Monarres.

Other Required
Regulatory Approvals:

California Department of Fish and Game Streambed
Alteration Agreement, Ms. Tamara Spear.

California
Environmental Quality
Act (CEQA)
Compliance:

City of Vista Mitigated Negative Declaration, Storm Water
Conveyance System Maintenance Project, June 10, 2008,
SCH # 2008021127.

Receiving Waters:

Sites 1 & 2: San Luis Rey River, San Luis Rey hydrologic
unit, Lower San Luis hydrologic area, Mission hydrologic
subarea (903.11).

Site 32b: Buena Vista Creek. Carlsbad hydrologic unit, Buena
Vista Creek hydrologic area, El Salto hydrologic subarea
(904.21).

Sites 3-23 & 30-32a: Carlsbad hydrologic unit, Buena Vista
Creek hydrologic area, Vista hydrologic subarea (904.22).

Sites 25-28: Carlsbad hydrologic unit, Agua Hedionda
hydrologic area, Buena hydrologic subarea (904.32).

Affected Waters of the
United States:

Temporary:

Wetland and Streambed	None
Lake	None
Ocean	None

Permanent:

Wetland and Streambed*	0.300-acre/905-linear feet
Lake	None
Ocean	None

Affected Waters of the
State:

Temporary:

Wetland and Streambed	None
Lake	None
Ocean	None

12. * Indicates trimming/cutting of native and non-native plant species and removal of accreted sediment and debris. For the purposes of this Certification, recurring impacts to the same site are considered one-time, permanent impacts to that site.

Permanent:

Wetland and Streambed**	0.15-acre/1040-linear ft.
Lake	None
Ocean	None

13. ** Indicates trimming/cutting of riparian native and non-native plant species in Department of Fish and Game jurisdiction. For the purposes of this Certification, recurring impacts to the same site are considered one-time, permanent impacts to that site.

Dredge Volume: ✓ None

Related Projects Implemented/to be Implemented by the Applicant(s): ✓ None disclosed.

Compensatory Mitigation: ✓ Mitigation proposed is described within the Conceptual Wetland Mitigation Plan, City of Vista, Storm Water Conveyance System Maintenance Project, Merkel & Associates, September 16, 2008. Proposed mitigation is the enhancement of 0.52-acre Southern willow scrub and enhancement of 0.38-acre of Freshwater marsh, for a total of 0.90-acre. The mitigation site is located in the City of Vista's Sports Park Mitigation area, flanking Guajome Creek, and adjacent to and northeast of Guajome Lake. The mitigation for this project is located adjacent to, but does not overlap with, two other projects' mitigation areas: Vista Sports Park Creation Area; and Adobe Estates Creation Area.

Best Management
Practices (BMPs):

BMPs are described in the Application for Water Quality Certification, page 3 of 9. BMPs will include, but not be limited to:

- Erosion control.
- Sediment control.
- Construction exit control.
- Silt fencing.
- Material and waste control (no staging or storage areas next to work sites).

The City of Vista Sediment Stockpiling Management Plan (Merkel & Associates and City of Vista Public Services, December 2008) proposes how excavated sediment, debris, and removed vegetation will be stockpiled at the City of Vista's materials management facility. At the facility, material will be separated, dried, analytically tested for contaminants, and either recycled as compost or disposed of at a landfill.

Public Notice:

June 26, 2008 – Regional Board website

Fees:

Total Due: \$5225.00
Total Paid: \$1145.00 (Check No. 00041398)
Total Paid: \$3880.00 (Check No. 00044229)

CIWQS:

Regulatory Measure: 352823
Place: 726988
Party: 382738

**ATTACHMENT 2
DISTRIBUTION LIST**

Ms. Laurie Monarres
U.S. Army Corps of Engineers
San Diego Field Office
6010 Hidden Valley Road
Suite 105
Carlsbad, CA 92011

Ms. Tamara Spear
California Department of Fish and Game
South Coast Region
Habitat Conservation Planning – North
4949 Viewridge Avenue
San Diego, CA 92123

Mr. Eric Raffini
Wetlands Regulatory Office
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105
R9-WTR8-Mailbox@epa.gov

Ms. Rebecca Erickson
Merkel & Associates
5434 Ruffin Road
San Diego, CA 92123

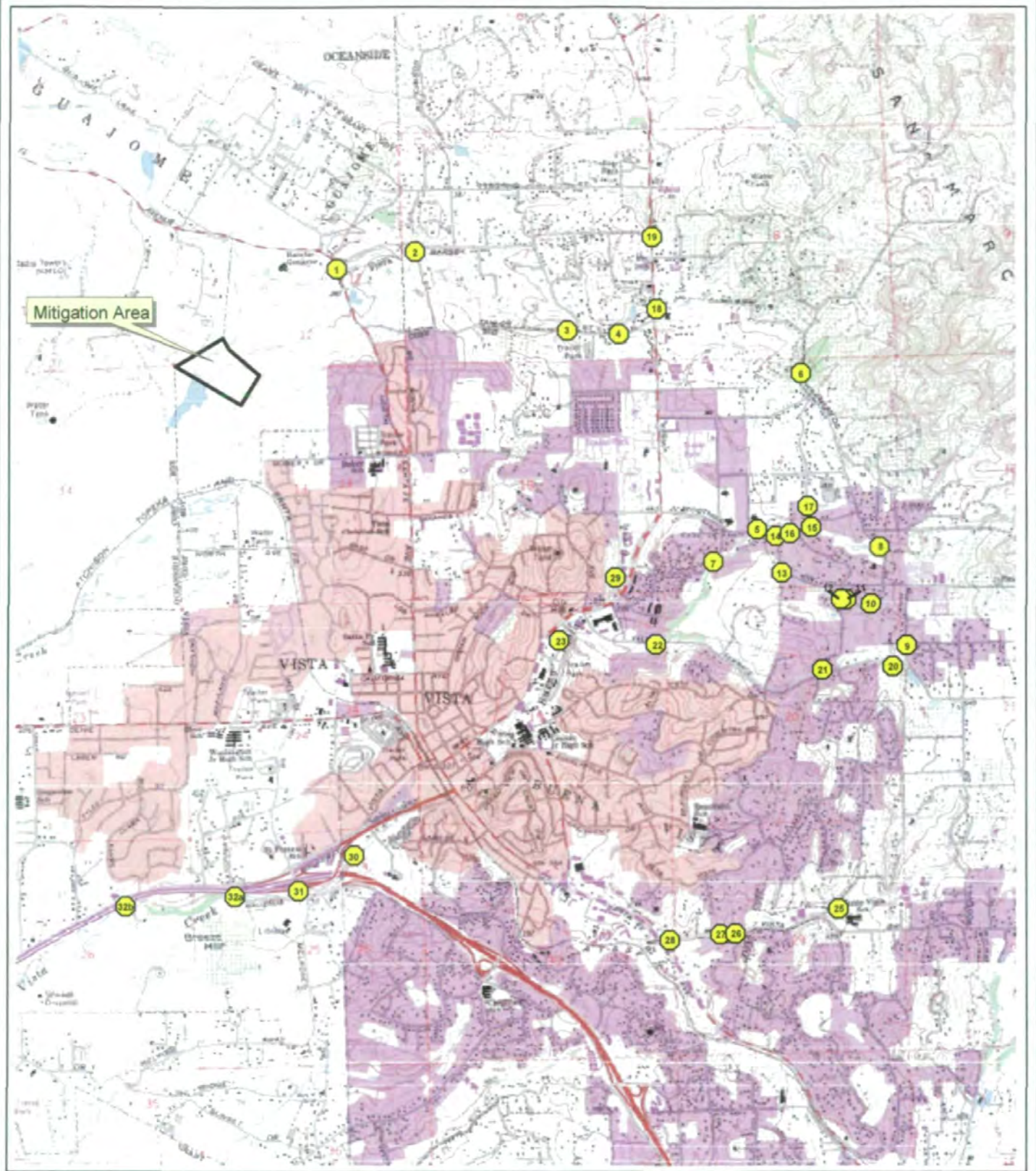
State Water Resources Control Board
Division of Water Quality
401 Water Quality Certification and Wetlands Unit
P.O. Box 100
Sacramento, CA 95812-0100

U.S. Department of the Interior
Fish and Wildlife Service
6010 Hidden Valley Road
Carlsbad, CA 92011

Certification No. 08C-068

ATTACHMENT 3

Location Map



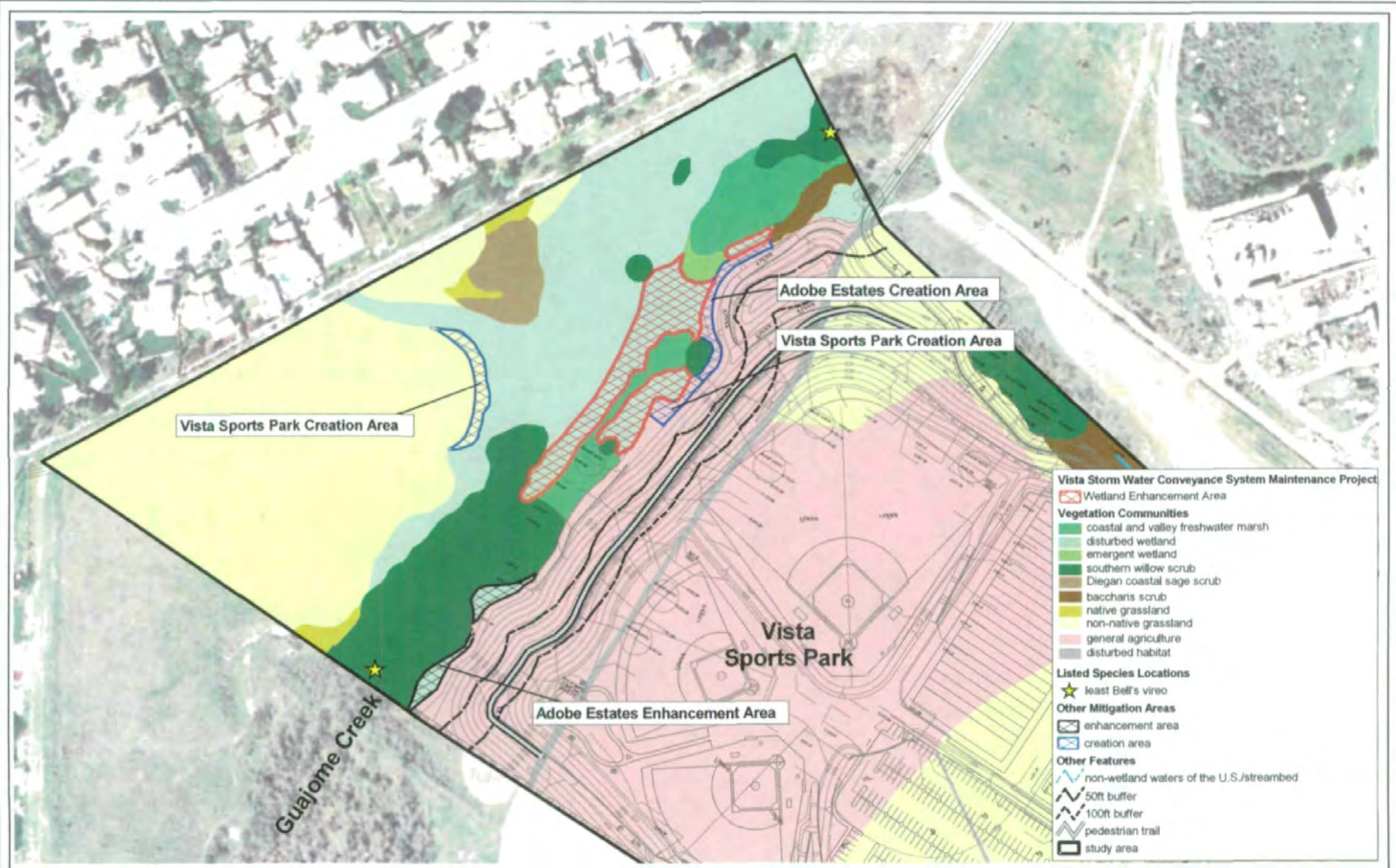
Project Vicinity Map
City of Vista Storm Water Conveyance System
Maintenance Project
Guajome Creek Mitigation Site
Source: USGS 7.5' San Luis Rey & San Marcos, CA Quadrangles

Figure 1

Certification No. 08C-068

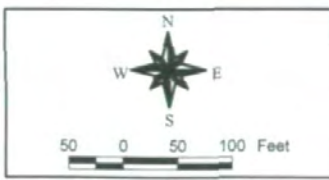
ATTACHMENT 4

Site Maps

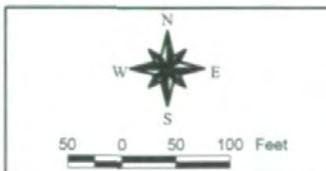
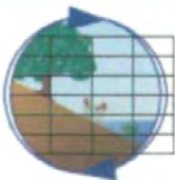


Wetland Enhancement Area
Vista Stormwater Conveyance System Maintenance Project

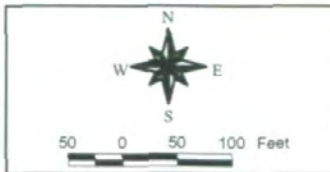
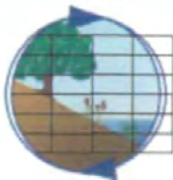
Figure 2



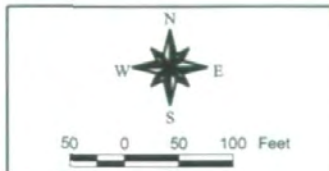
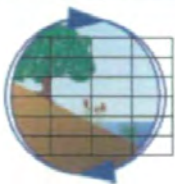
Site #2 2140-2109 Goodwin Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



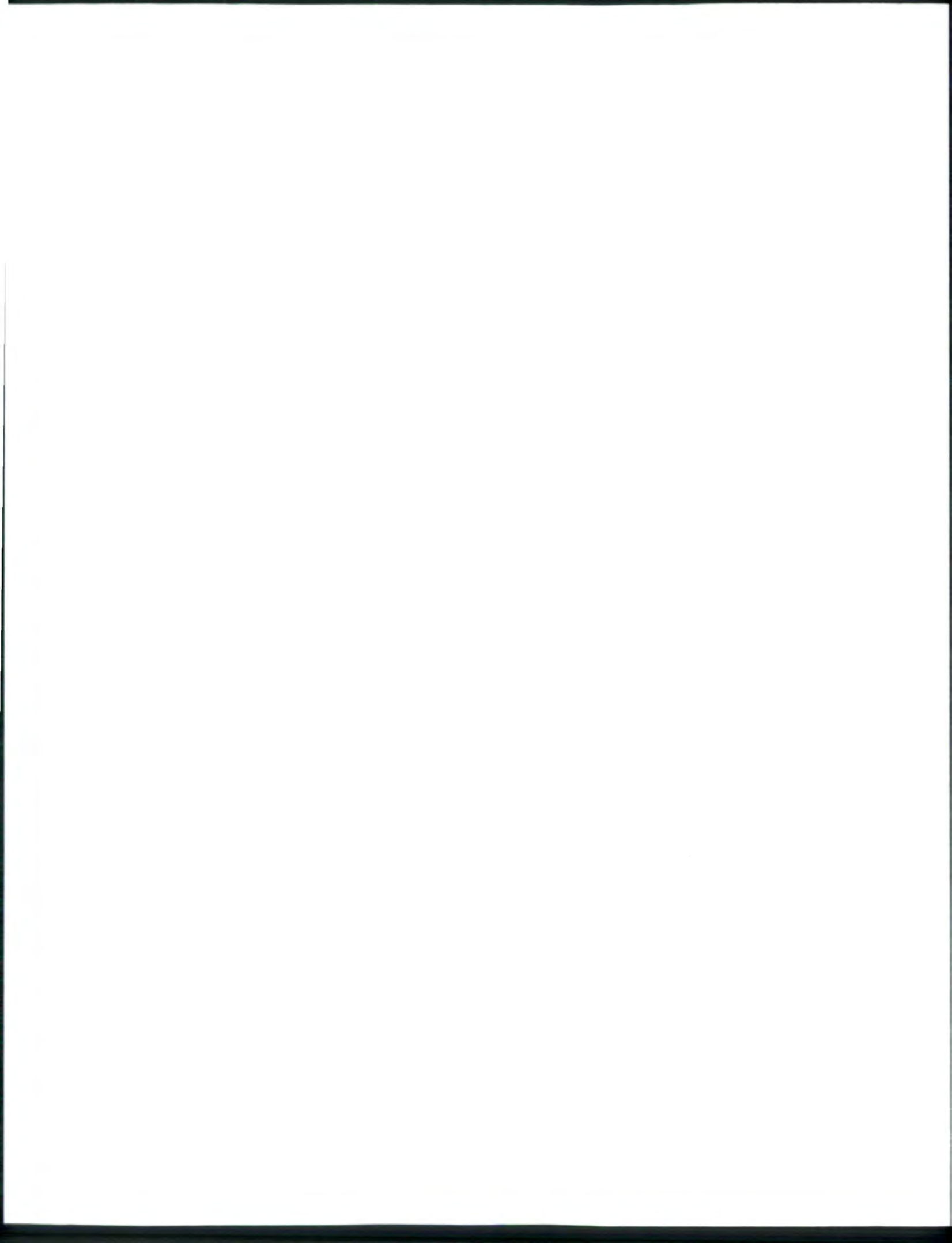
Site #3 803 W. Taylor St.
City of Vista Storm Water Conveyance Structure
Maintenance Project

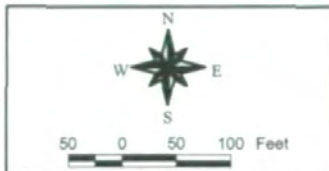
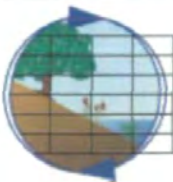


Site #4 926 W. Taylor
City of Vista Storm Water Conveyance Structure
Maintenance Project

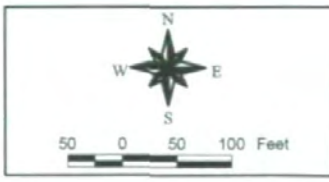


Site #5 1411 Foothill Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project

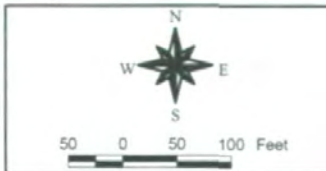
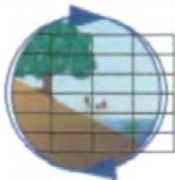




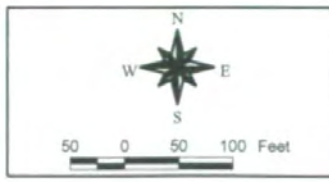
Site #6 1757 Warmlands Ave.
City of Vista Storm Water Conveyance Structure
Maintenance Project



Site #7 1240 to 1165 Oak Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



Site #8 1045 Warmlands Ave.
City of Vista Storm Water Conveyance Structure
Maintenance Project



Site #9 2041 Foothill Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



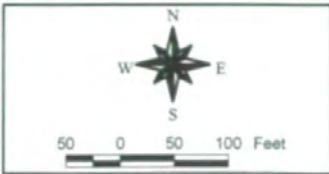
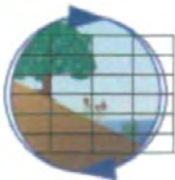
Vegetation Communities

- exotic riparian woodland

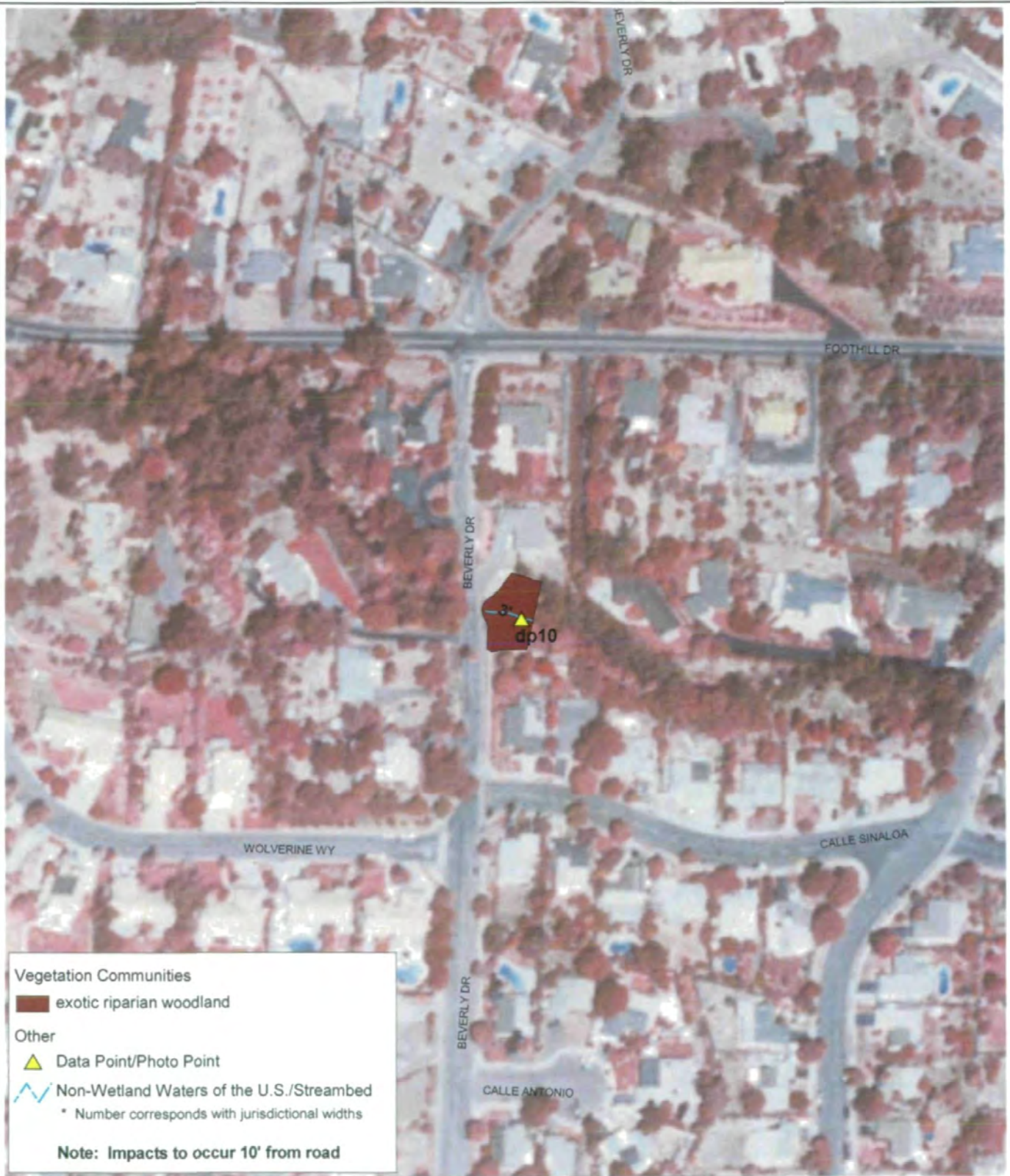
Other

- coast live oak (*Quercus agrifolia*)
- Non-Wetland Waters of the U.S./Streambed
* Number corresponds with jurisdictional widths

Note: Impacts to occur 20' from road



Site #10 940-955 Warmlands Ave.
 City of Vista Storm Water Conveyance Structure
 Maintenance Project




Vegetation Communities

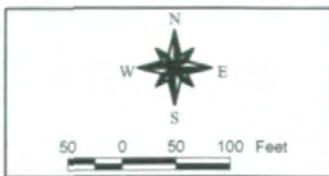
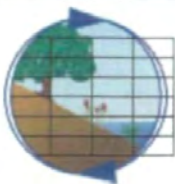
 exotic riparian woodland

Other

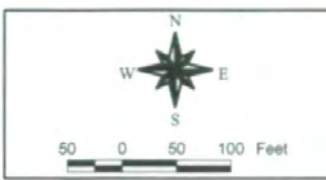
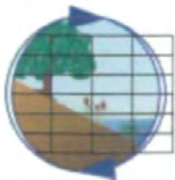
 Data Point/Photo Point

 Non-Wetland Waters of the U.S./Streambed
* Number corresponds with jurisdictional widths

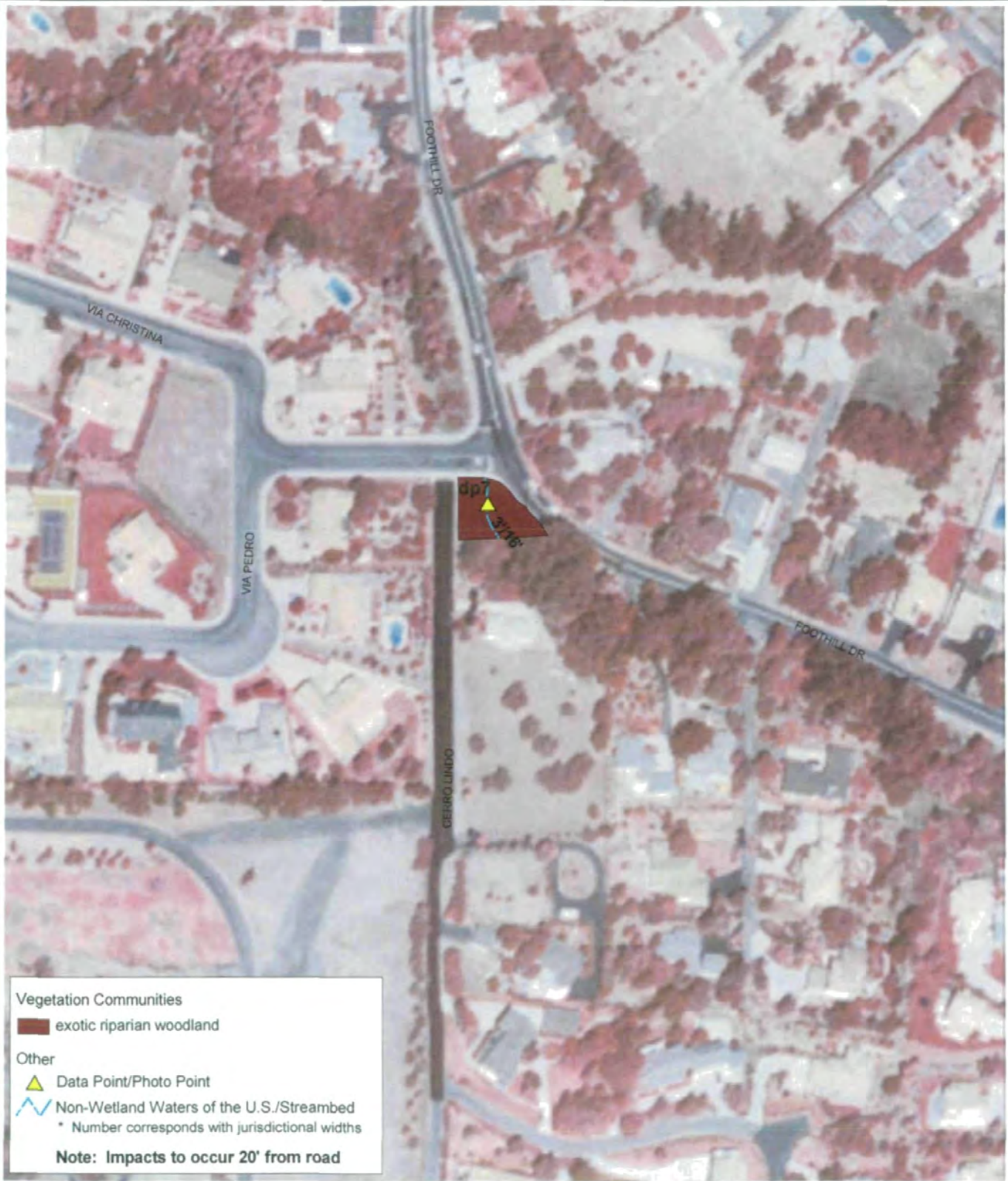
Note: Impacts to occur 10' from road



Site #11 939-942 Beverly Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



Site #12 1739-1765 Foothill Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



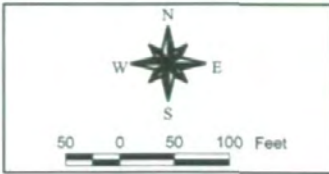
Vegetation Communities

- exotic riparian woodland

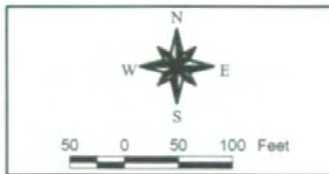
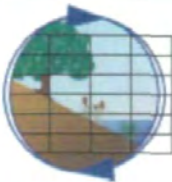
Other

- Data Point/Photo Point
- Non-Wetland Waters of the U.S./Streambed
* Number corresponds with jurisdictional widths

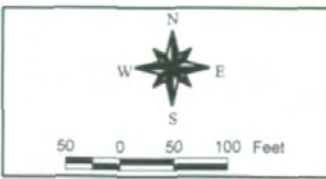
Note: Impacts to occur 20' from road



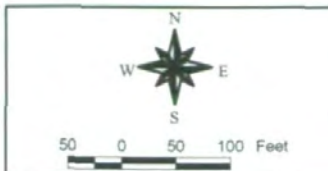
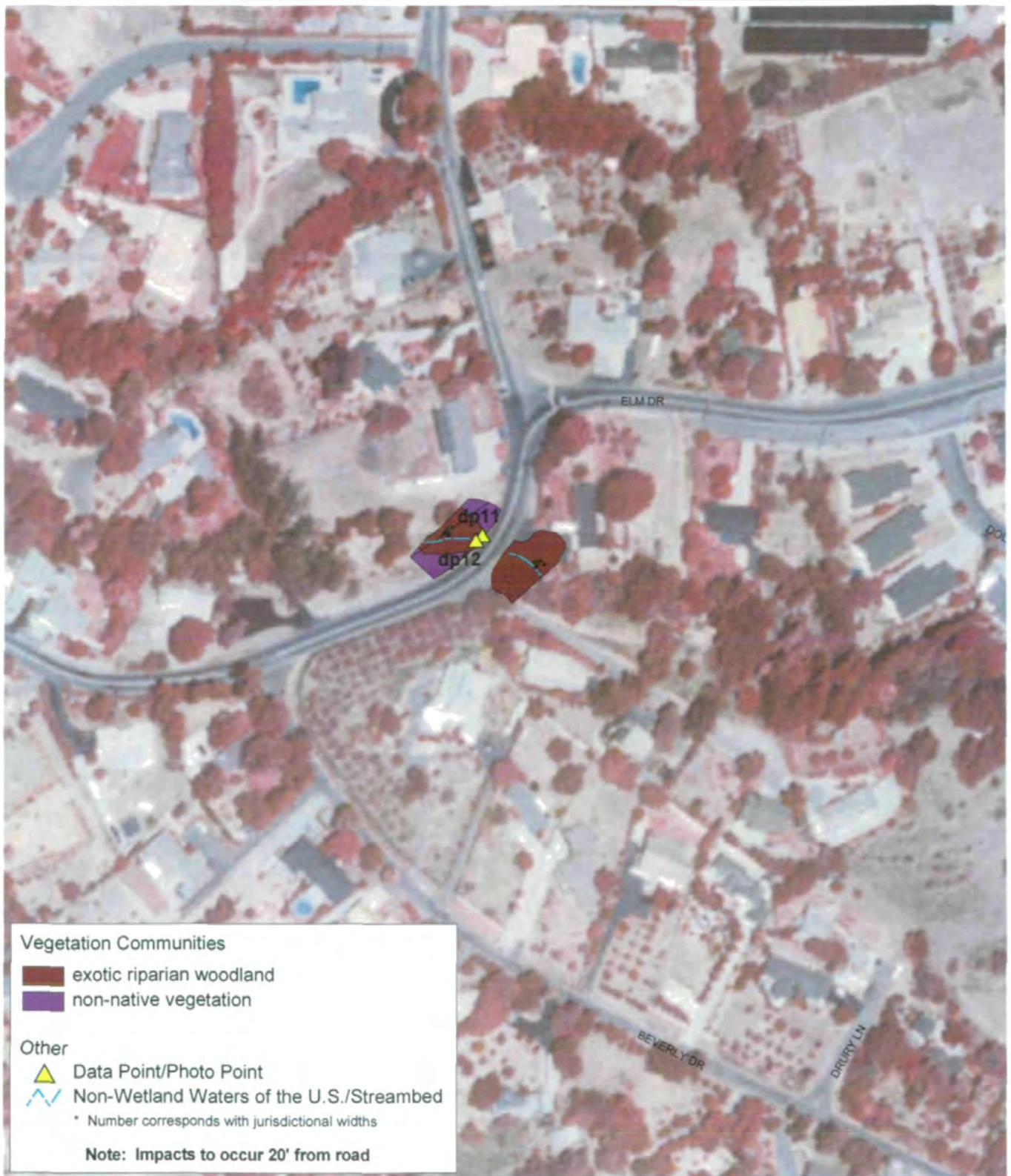
Site #13 1619 Foothill Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



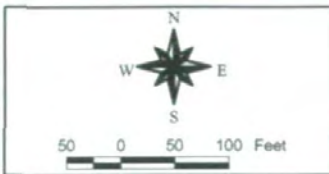
Site #14 1455 to 1532 Foothill Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



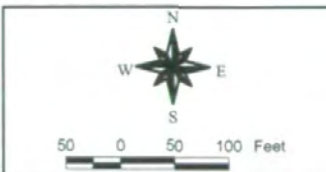
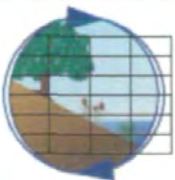
Site #14 1455 to 1532 Foothill Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



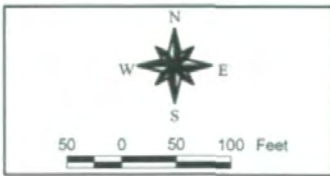
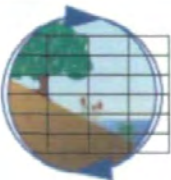
Site #15 1540 to 1585 Elm Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



Site #16 1520 Elm Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



Site # 17 1308 to 1319 Independence Way
City of Vista Storm Water Conveyance Structure
Maintenance Project



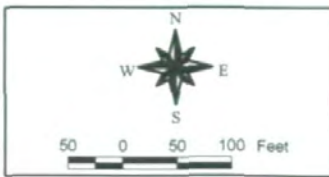
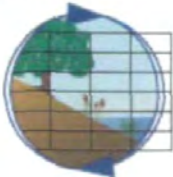
Site #18 1957 to 1970 E. Vista Way
City of Vista Storm Water Conveyance Structure
Maintenance Project



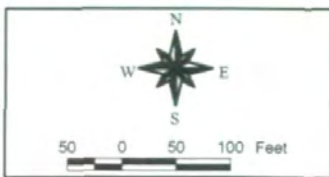
Vegetation Communities
■ disturbed southern willow scrub

Other
/// Channel
* Number corresponds with drainage widths

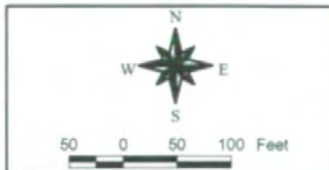
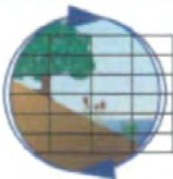
Note: Impacts to occur 10' from road



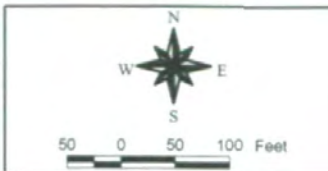
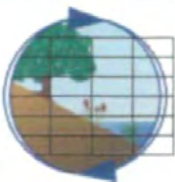
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City of Vista Storm Water Conveyance Structure
Maintenance Project



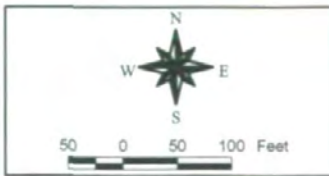
Site #20 1854 Vale Terrace Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



Site #21 Vale Terrace and Alta Mesa
City of Vista Storm Water Conveyance Structure
Maintenance Project

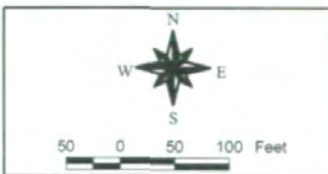
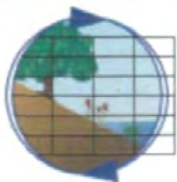


Site #22 1070 Vale Terrace Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project

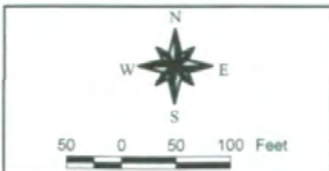
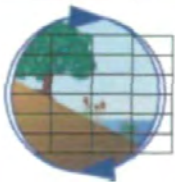


Site #23 Truly Terrace and E. Vista Way
City of Vista Storm Water Conveyance Structure
Maintenance Project

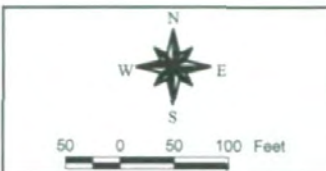
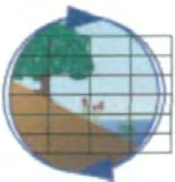
***No Maintenance needed at Site #24**



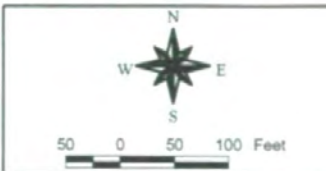
Site #25 815 Valley and Fireside Ln.
City of Vista Storm Water Conveyance Structure
Maintenance Project



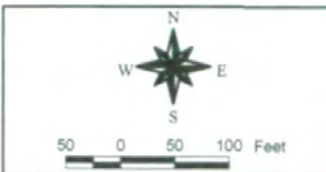
Site #26 Cypress and Monte Vista Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



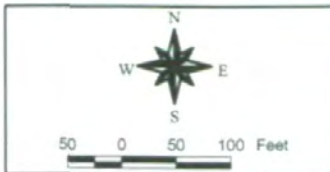
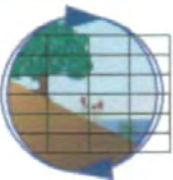
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City of Vista Storm Water Conveyance Structure
Maintenance Project



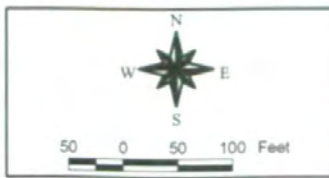
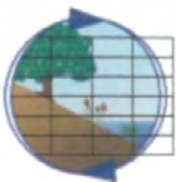
Site #28 1055 Monte Vista Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



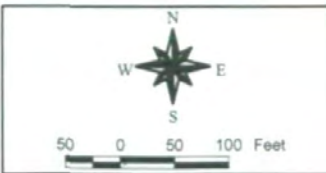
Site #29 1210 Calle Jules to E. Vista Way
City of Vista Storm Water Conveyance Structure
Maintenance Project



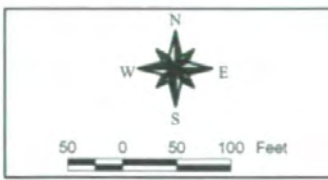
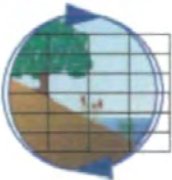
Site #30 Buena Vista Channel at No. County Ford
 City of Vista Storm Water Conveyance Structure
 Maintenance Project



Site #31 Buena Vista Channel at Melrose Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



Site #32a Buena Vista Channel at La Tortuga Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project



Site #32b Buena Vista Channel north of Hacienda Dr.
City of Vista Storm Water Conveyance Structure
Maintenance Project

Certification No. 08C-068

ATTACHMENT 5

STREAM PHOTO DOCUMENTATION PROCEDURE

Standard Operating Procedure (SOP) 4.2.1.4

Stream Photo Documentation Procedure

(CARCD 2001, Written by TAC Visual Assessments work group)

Introduction:

Photographs provide a qualitative, and potentially semi-quantitative, record of conditions in a watershed or on a water body. Photographs can be used to document general conditions on a reach of a stream during a stream walk, pollution events or other impacts, assess resource conditions over time, or can be used to document temporal progress for restoration efforts or other projects designed to benefit water quality. Photographic technology is available to anyone and it does not require a large degree of training or expensive equipment. Photos can be used in reports, presentations, or uploaded onto a computer website or GIS program. This approach is useful in providing a visual portrait of water resources to those who may never have the opportunity to actually visit a monitoring site.

Equipment:

Use the same camera to the extent possible for each photo throughout the duration of the project. Either 35 mm color or digital color cameras are recommended, accompanied by a telephoto lens. If you must change cameras during the program, replace the original camera with a similar one comparable in terms of media (digital vs. 35 mm) and other focal length characteristics. A complete equipment list is suggested as follows:

Required:

- Camera and backup camera
- Folder with copies of previous photos (do not carry original photos in the field)
- Topographic and/or road map
- Aerial photos if available
- Compass
- Timepiece
- Extra film or digital disk capacity (whichever is applicable)
- Extra batteries for camera (if applicable)
- Photo-log data sheets or, alternatively, a bound notebook dedicated to the project
- Yellow photo sign form and black marker, or, alternatively, a small black board and chalk

Optional:

- GPS unit
- Stadia rod (for scale on landscape shots)
- Ruler (for scale on close up views of streams and vegetation)
- Steel fence posts for dedicating fixed photo points in the absence of available fixed landmarks

How to Access Aerial Photographs:

Aerial Photos can be obtained from the following federal agencies:

USGS Earth Science Information Center
507 National Center
12201 Sunrise Valley Drive
Reston, VA 22092
800-USA-MAPS

USDA Consolidated Farm Service Agencies
Aerial Photography Field Office
222 West 2300 South
P.O. Box 30010
Salt Lake City, UT 84103-0010
801-524-5856

Cartographic and Architectural Branch
National Archives and Records Administration
8601 Adelphi Road
College park, MD 20740-6001
301-713-7040

Roles and Duties of Team:

The team should be comprised of a minimum of two people, and preferably three people for restoration or other water quality improvement projects, as follows:

1. Primary Photographer
2. Subject, target for centering the photo and providing scale
3. Person responsible for determining geographic position and holding the photo sign forms or blackboard.

One of these people is also responsible for taking field notes to describe and record photos and photo points.

Safety Concerns:

Persons involved in photo monitoring should **ALWAYS** put safety first. For safety reasons, always have at least two 2 volunteers for the survey. Make sure that the area(s) you are surveying either are accessible to the public or that you have obtained permission from the landowner prior to the survey.

Some safety concerns that may be encountered during the survey include, but are not limited to:

- Inclement weather
- Flood conditions, fast flowing water, or very cold water

- Poisonous plants (e.g.: poison oak)
- Dangerous insects and animals (e.g.: bees, rattlesnakes, range animals such as cattle, etc.)
- Harmful or hazardous trash (e.g.: broken glass, hypodermic needles, human feces)

We recommend that the volunteer coordinator or leader discuss the potential hazards with all volunteers prior to any fieldwork.

General Instructions:

From the inception of any photo documentation project until it is completed, always take each photo from the same position (photo point), and at the same bearing and vertical angle at that photo point. Photo point positions should be thoroughly documented, including photographs taken of the photo point. Refer to copies of previous photos when arriving at the photo point. Try to maintain a level (horizontal) camera view unless the terrain is sloped. (If the photo can not be horizontal due to the slope, then record the angle for that photo.) When photo points are first being selected, consider the type of project (*meadow or stream restoration, vegetation management for fire control, ambient or event monitoring as part of a stream walk, etc.*) and refer to the guidance listed on *Suggestions for Photo Points by Type of Project*.

When taking photographs, try to include landscape features that are unlikely to change over several years (buildings, other structures, and landscape features such as peaks, rock outcrops, large trees, etc.) so that repeat photos will be easy to position. Lighting is, of course, a key ingredient so give consideration to the angle of light, cloud cover, background, shadows, and contrasts. Close view photographs taken from the north (i.e., facing south) will minimize shadows. Medium and long view photos are best shot with the sun at the photographer's back. Some artistic expression is encouraged as some photos may be used on websites and in slide shows (early morning and late evening shots may be useful for this purpose). Seasonal changes can be used to advantage as foliage, stream flow, cloud cover, and site access fluctuate. It is often important to include a ruler, stadia rod, person, farm animal, or automobile in photos to convey the scale of the image. Of particular concern is the angle from which the photo is taken. Oftentimes an overhead or elevated shot from a bridge, cliff, peak, tree, etc. will be instrumental in conveying the full dimensions of the project. Of most importance overall, however, is being aware of the goal(s) of the project and capturing images that clearly demonstrate progress towards achieving those goal(s). Again, reference to *Suggestions for Photo Points by Type of Project* may be helpful.

If possible, try to include a black board or yellow photo sign in the view, marked at a minimum with the location, subject, time and date of the photograph. A blank photo sign form is included in this document.

Recording Information:

Use a systematic method of recording information about each project, photo point, and photo. The following information should be entered on the photo-log forms (blank form included in this document) or in a dedicated notebook:

- Project or group name, and contract number (if applicable, e.g., for funded restoration projects)
- General location (stream, beach, city, etc.), and short narrative description of project's habitat type, goals, etc.
- Photographer and other team members
- Photo number
- Date
- Time (for each photograph)
- Photo point information, including:
 - Name or other unique identifier (abbreviated name and/or ID number)
 - Narrative description of location including proximity to and direction from notable landscape features like roads, fence lines, creeks, rock outcrops, large trees, buildings, previous photo points, etc. – sufficient for future photographers who have never visited the project to locate the photo point
 - Latitude, longitude, and altitude from map or GPS unit
- Magnetic compass bearing from the photo point to the subject
- Specific information about the subject of the photo
- Optional additional information: a true compass bearing (corrected for declination) from photo point to subject, time of sunrise and sunset (check newspaper or almanac), and cloud cover.

For ambient monitoring, the stream and shore walk form should be attached or referenced in the photo-log.

When monitoring the implementation of restoration, fuel reduction, or Best Management Practices (BMP) projects, include or attach to the photo-log a narrative description of observable progress in achieving the goals of the project. Provide supplementary information along with the photo, such as noticeable changes in habitat, wildlife, and water quality and quantity.

Archive all photos, along with the associated photo-log information, in a protected environment.

The Photo Point: Establishing Position of Photographer:

1. Have available a variety of methods for establishing position: maps, aerial photos, GPS, permanent markers and landmarks, etc. If the primary method fails (e.g., a GPS or lost marker post) then have an alternate method (map, aerial photo, copy of an original photograph of the photo-point, etc).

2. Select an existing structure or landmark (mailbox, telephone pole, benchmark, large rock, etc.), identify its latitude and longitude, and choose (and record for future use) the permanent position of the photographer relative to that landmark. Alternatively, choose the procedure described in *Monitoring California's Annual Rangeland Vegetation* (UC/DANR Leaflet 21486, Dec. 1990). This procedure involves placing a permanently marked steel fence post to establish the position of the photographer.
3. For restoration, fuel reduction, and BMP projects, photograph the photo-points and carry copies of those photographs on subsequent field visits.

Determining the Compass Bearing:

1. Select and record the permanent magnetic bearing of the photo center view. You can also record the true compass bearing (corrected for declination) but do not substitute this for the magnetic bearing. Include a prominent landmark in a set position within the view. If possible, have an assistant stand at a fixed distance from both the photographer and the center of the view, holding a stadia rod if available, within the view of the camera; preferably position the stadia rod on one established, consistent side of the view for each photo (right or left side).
2. Alternatively, use the procedure described in *Monitoring California's Annual Rangeland Vegetation* (UC/DANR Leaflet 21486, Dec. 1990). This procedure involves placing a permanently marked steel fence post to establish the position of the focal point (photo center).
3. When performing ambient or event photo monitoring, and when a compass is not available, then refer to a map and record the approximate bearing as north, south, east or west.

Suggestions for Photo Points by Type of Project:

Ambient or Event Monitoring, Including Photography Associated with Narrative Visual Assessments:

1. When first beginning an ambient monitoring program take representative long and/or medium view photos of stream reaches and segments of shoreline being monitored. Show the positions of these photos on a map, preferably on the stream/shore walk form. Subjects to be photographed include a representative view of the stream or shore condition at the beginning and ending positions of the segment being monitored, storm drain outfalls, confluence of tributaries, structures (e.g., bridges, dams, pipelines, etc.).
2. If possible, take a close view photograph of the substrate (streambed), algae, or submerged aquatic vegetation.
3. Time series: Photographs of these subjects at the same photo points should be repeated annually during the same season or month if possible.

4. Event monitoring refers to any unusual or sporadic conditions encountered during a stream or shore walk, such as trash dumps, turbidity events, oil spills, etc. Photograph and record information on your photo-log and on your Stream and Shore Walk Visual Assessment form. Report pollution events to the Regional Board. Report trash dumps to local authorities.

All Restoration and Fuel Reduction Projects – Time Series:

Take photos immediately before and after construction, planting, or vegetation removal. Long term monitoring should allow for at least annual photography for a minimum of three years after the project, and thereafter at 5 years and ten years.

Meadow Restoration:

1. Aerial view (satellite or airplane photography) if available.
2. In the absence of an aerial view, a landscape, long view showing an overlapping sequence of photos illustrating a long reach of stream and meadow (satellite photos, or hill close by, fly-over, etc.)
3. Long view up or down the longitudinal dimension of the creek showing riparian vegetation growth bounded on each side by grasses, sedges, or whatever that is lower in height
4. Long view of conversion of sage and other upland species back to meadow vegetation
5. Long view and medium view of streambed changes (straightened back to meandering, sediment back to gravel, etc.)
6. Medium and close views of structures, plantings, etc. intended to induce these changes

Stream Restoration/stabilization:

1. Aerial view (satellite or airplane photography) if available.
2. In the absence of an aerial view, a landscape, long-view showing all or representative sections of the project (bluff, bridge, etc.)
3. Long view up or down the stream (from stream level) showing changes in the stream bank, vegetation, etc.
4. Long view and medium view of streambed changes (thalweg, gravel, meanders, etc.)
5. Medium and close views of structures, plantings, etc. intended to induce these changes.
6. Optional: Use a tape set perpendicular across the stream channel at fixed points and include this tape in your photos described in 3 and 4 above. For specific procedures refer to Harrelson, Cheryl C., C.L. Rawlins, and John P. Potyondy, *Stream Channel Reference Sites: An Illustrated Guide to Field Techniques*, United States Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station, General Technical Report RM-245.

Vegetation Management for Fire Prevention ("fuel reduction"):

1. Aerial view (satellite or airplane photography) if available.
2. In the absence of an aerial view, a landscape, long view showing all or representative sections of the project (bluff, bridge, etc.)
3. Long view (wide angle if possible) showing the project area or areas. Preferably these long views should be from an elevated vantage point.
4. Medium view photos showing examples of vegetation changes, and plantings if included in the project. It is recommended that a person (preferably holding a stadia rod) be included in the view for scale
5. To the extent possible include medium and long view photos that include adjacent stream channels.

Stream Sediment Load or Erosion Monitoring:

1. Long views from bridge or other elevated position.
2. Medium views of bars and banks, with a person (preferably holding a stadia rod) in view for scale.
3. Close views of streambed with ruler or other common object in the view for scale.
4. Time series: Photograph during the dry season (low flow) once per year or after a significant flood event when streambed is visible. The flood events may be episodic in the south and seasonal in the north.
5. Optional: Use a tape set perpendicular across the stream channel at fixed points and include this tape in your photos described in 1 and 2 above. For specific procedures refer to Harrelson, Cheryl C., C.L. Rawlins, and John P. Potyondy, *Stream Channel Reference Sites: An Illustrated Guide to Field Techniques*, United States Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station, General Technical Report RM-245.

PHOTO SIGN FORM: Print this form on yellow paper. Complete the following information for each photograph. Include in the photographic view so that it will be legible in the finished photo.

Location:

Subject Description:

Date:

Time:

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
 John Conley
 City of Vista
 600 Eucalyptus Avenue
 Vista, CA 92084

2. Article Number
 (Transfer from service label) 7008 1140 0004 9971 8962

COMPLETE THIS SECTION ON DELIVERY

A. Signature X Agent Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
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 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

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 PS Form 3800, August 2006 See Reverse for Instructions