California Regional Water Quality Control Board
San Diego Region

Over 50 Years Serving San Diego, Orange, and Riverside Counties
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9174 Sky Park Court, Suite 100, San Diego, California 92123-4353
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http:// www.waterboards.ca.gov/sandiego

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

January 27, 2012

Certified Mail – Return Receipt Requested
Article Number: 7011 0470 0002 8961 5179

Mr. Jerry Backoff
Director of Planning
City of San Marcos
1 Civic Center Drive
San Marcos, CA 92069

In reply refer to:
711044: mporter

Dear Mr. Backoff:

SUBJECT: Clean Water Act Section 401 Water Quality Certification No. 11C-058 for the San Marcos Creek Specific Plan Project

Enclosed is the Clean Water Act Section 401 Water Quality Certification for discharges to waters of the U.S. and acknowledgment of enrollment under State Water Resources Control Board Order No. 2003-017-DWQ for the San Marcos Creek Specific Plan Project (project). A description of the project and project location can be found in the project information sheet, location map, and site maps which are included as Attachments 1 through 6.

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 you have accepted and will comply with all the conditions of this Certification.

Failure to comply with all conditions of this Certification may subject the City of San Marcos to enforcement actions by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board), including administrative enforcement orders requiring you 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.

In the subject line of any response, please include the requested "**In reply refer to:**" information located in the heading of this letter. For questions pertaining to the subject matter, please contact Mike Porter at 858-467-2726 or mporter@waterboards.ca.gov.

Respectfully,

DAVID W. GIBSON
Executive Officer

Enclosures:

Clean Water Act Section 401 Water Quality Certification No. 11C-053 for San Marcos Creek Specific Plan, with six attachments.

E-copies: Refer to Attachment 2 of Certification 11C-053 for the Distribution List.

Tech Staff Info & Use	
File No.	11C-053
WDID	9000002309
Reg. Measure ID	380177
Place ID	711044
Party ID	11161
Person ID	10891

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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: San Marcos Creek Specific Plan
Water Quality Certification No. 11C-053

APPLICANT: Mr. Jerry Backoff
Director of Planning
City of San Marcos
1 Civic Center Drive
San Marcos, CA 92069

WDID	9000002309
Reg. Meas.	380177
Place	711044
Party	11161
Person	108191

ACTION:

☐ Order for Low Impact Certification	☐ Order for Denial of Certification
☑ Order for Technically-conditioned, Programmatic Certification	☐ Waiver of Waste Discharge Requirements
☑ Enrollment in SWRCB GWDR Order No. 2003-017 DWQ	☐ Enrollment in Isolated Waters Order No. 2004-004 DWQ

PROJECT DESCRIPTION:

The San Marcos Creek Specific Plan is a community planning effort designed to provide the necessary framework to create mixed-use/smart-growth zoning, flood control to surrounding properties, and to facilitate urban infill by re-evaluating land uses and establishing a Specific Plan for development regulation within the project area over an estimated 20-year time period. The project area consists of approximately 217 acres of land for which mixed use, park land, right-of-way, and dedicated open space are proposed.

The project includes the construction of a raised development pad along the north side of San Marcos Creek and a floodwall along San Marcos Creek between Bent Avenue and Via Vera Cruz to provide the necessary floodway infrastructure. Several roadway improvements are also proposed including widening Discovery Street from McMahr Road to the Bent Avenue/Craven Road intersection, constructing bridges at Via Vera Cruz and Bent Avenue, and widening San Marcos Boulevard by approximately 20 feet to include an additional through lane. Park land in the project area would include trails, grassy areas for picnicking, and other amenities, as well as access to a pedestrian bridge at McMahr Road and sidewalks along the new Via Vera Cruz and Bent Avenue bridges, and the adjacent, off-site Grand Avenue Bridge.

Impacts to Las Posas Creek have been reduced to a small segment along San Marcos Boulevard where a check dam is proposed to divert the active, low flow into a realigned, east-to-west trending channel that will have a larger footprint and a more natural confluence with San Marcos Creek. High flows are expected to breach the check dam allowing the existing Las Posas Creek to receive flows during heavier rain events.

Total project impacts to San Marcos and Las Posas Creeks as wetland and non-wetland waters (stream channel and open water) will occur during the first eight years of the project, in 15 phases, and will be limited to:

Permanent Impacts -

Wetlands	9.87-acre, 12,645-linear feet
Streambed	0.26-acre, 230-linear feet

Temporary Impacts -

Wetlands	1.41-acre, 1,550-linear feet
Streambed	None

Compensatory mitigation and the long-term management of the mitigation areas are described in two documents: (1) *Revised Compensatory Wetlands Mitigation and Monitoring Plan for the San Marcos Creek Specific Plan,* dated January 5, 2012*;* and (2) *Habitat Management Plan for the San Marcos Creek Specific Plan Wetland Mitigation Project,* dated December 2011. Mitigation will occur on the San Marcos Creek and Las Posas Creek floodplains, concurrently or prior to each of the 15 phases of project construction. Mitigation will total 60.27-acres (52,770-linear feet) and will consist of:

Type	Acres	Linear Feet
Establishment	23.56	13,975
Re-establishment	1.76	4,515
Enhancement	17.12	13,425
Preservation	9.92	7,280
Buffers	7.91	13,575

Presently there are no structural water quality Best Management Practices (BMPs) in the proposed 217 acres of redevelopment area, and runoff flows into San Marcos and Las Posas Creeks untreated. With implementation of the project, non-storm water flows will be eliminated and storm water and flows will be treated with structural BMPs and water quality will improve in San Marcos and Las Posas Creeks. Proposed water quality BMPs are described in the *Final San Marcos Creek Specific Plan Master Water Quality and Hydromodification Management Plan* (Final Master WQTR), dated December 15, 2011. The Final Master WQTR will ensure consistency in the application of water quality and hydromodification compliance requirements within each private development project located in the San Marcos Creek Specific Plan area, and will ensure that the Specific Plan area functions in accordance with ongoing watershed planning and pollutant load reduction efforts and orders (i.e. TMDLs) so that each project takes into consideration its role within the Specific Plan area as well as within the overall San Marcos Creek watershed.

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I. STANDARD CONDITIONS:

The following three standard conditions apply to all Certification actions, except as noted under Condition 3 for denials.

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 California Water Code and section 3867 of Title 23 of the California Code of Regulations (23 CCR).

B. 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.

C. The validity of any non-denial Certification action 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.

II. ADDITIONAL CONDITIONS: GENERAL

A. Water Quality Certification No. 11C-053 (Certification) is only valid if the project begins no later than 5 (five) years from the date of issuance. If the project has not begun within 5 years from the date of issuance, then this Certification expires.

B. The City of San Marcos 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* and any subsequent revisions thereto. These General Waste Discharge Requirements are accessible at: http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf.

C. The City of San Marcos 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 (San Diego Water Board), to support this Certification and all subsequent submittals required as part of this Certification and as described herein.

The conditions within this Certification must supersede conflicting provisions within such plans submitted as part of this Certification action.

D. The City of San Marcos must permit the San Diego Water Board or its authorized representative at all times, upon presentation of credentials:

1. Entry onto project premises, including all areas on which wetland fill or wetland mitigation is located or in which records are kept.

2. Access to copy any records required to be kept under the terms and conditions of this Certification.

3. Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this Certification.

4. Sampling of any discharge or surface water covered by this Order.

E. 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.

F. In response to a suspected violation of any condition of this Certification, the San Diego Water 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 San Diego Water 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.

G. The San Diego Water Board may add to or modify the conditions of this Certification, as appropriate, to ensure compliance with water quality standards and provisions.

III. ADDITIONAL CONDITIONS: CONSTRUCTION BEST MANAGEMENT PRACTICES

A. Prior to the start of the project, and annually thereafter, the City of San Marcos must educate all personnel on the requirements in this Certification, pollution prevention measures, spill response, and the implementation and maintenance of Best Management Practices (BMPs).

B. The City of San Marcos, and/or all legally responsible parties in the redevelopment area, must enroll in and comply with the requirements of State Water Resources Control Board Water Quality Order No. 2009-0009-DWQ, NPDES No. CAS000002, *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities,* and any subsequent revisions thereto.

C. The City of San Marcos and/or its designee(s) must, at all times, maintain appropriate types and sufficient quantities of materials on-site 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 United States and/or State.

D. The treatment, storage, and disposal of wastewater during the life of the project must be done in accordance with waste discharge requirements established by the San Diego Water Board pursuant to CWC § 13260.

E. Discharges of concentrated flow during construction or after completion must not cause downstream erosion or damage to properties or stream habitat.

F. 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 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.

G. All surface waters, including ponded waters, must be diverted away from areas undergoing grading, construction, excavation, vegetation removal, or any other activity which may result in a discharge to the receiving water. Diversion activities must not result in the degradation of beneficial uses or exceedance of water quality objectives of the receiving waters. Any temporary dam or other artificial obstruction constructed must only be built from materials such as clean gravel which will cause little or no siltation. Normal flows must be restored to the affected stream immediately upon completion of work at that location.

H. All areas that will be left in a rough graded state must be stabilized no later than two weeks after completion of grading. The City of San Marcos, and/or its designee(s), is responsible for implementing and maintaining BMPs to prevent erosion of the rough graded areas. After completion of grading, all areas must be revegetated with native species appropriate for the area. The revegetation palette must not contain any plants listed on the California Invasive Plant Council Invasive Plant Inventory, which can

be found online at http://www.cal-ipc.org/ip/inventory/weedlist.php.

I. Substances hazardous to aquatic life including, but not limited to, petroleum products, raw cement/concrete, asphalt, and coating materials, must be prevented from contaminating the soil and/or entering waters of the United States and/or State, except as authorized by this Certification. BMPs must be implemented to prevent such discharges during each project activity involving hazardous materials.

J. Removal of vegetation must occur by hand, mechanically, or using EPA approved herbicides deployed using applicable BMPs to prevent impacts to Beneficial Uses of waters of the State. Use of aquatic pesticides must be done in accordance with State Water Resources Control Board Water Quality Order No. 2004-0009-DWQ, and any subsequent reissuance thereto.

K. If groundwater dewatering with discharge to surface water is necessary for project construction, the City of San Marcos and/or its designee(s), must apply for and obtain either individual Waste Discharge Requirements or coverage under the San Diego Water Board Order No. R9-2008-0002, *General Waste Discharge Requirements for Discharges from Groundwater Extraction and Similar Discharges to Surface Waters Within the San Diego Region* and any subsequent revisions thereto. These General Waste Discharge Requirements are accessible at: http://www.swrcb.ca.gov/rwqcb9/board_decisions/adopted_orders/2008/2008_0002.pdf

L. During construction, the City of San Marcos, and/or its designee(s), must maintain a copy of this Certification at the project site so as to be available at all times to site personnel and agencies.

M. The City of San Marcos must eliminate illicit discharges and prevent nuisance flows from the redevelopment area from entering the receiving waters.

IV. ADDITIONAL CONDITIONS: POST-CONSTRUCTION BEST MANAGEMENT PRACTICES

A. Post-construction BMPs must be implemented in accordance with the *Final San Marcos Creek Specific Plan Master Water Quality and Hydromodification Management Plan* (Final Master WQTR), dated December 15, 2011, for the San Marcos Creek Specific Plan Area and any subsequent revisions thereto, and in accordance with the

development standards prescribed in the Municipal Separate Storm Sewer System (MS4) permit applicable at that time[1].

B. The City of San Marcos must update the Final Master WQTR **annually** with the following information and must post the updated document on the City of San Marcos' website:

1. Changes in BMPs, sampling methodology, standards, or requirements utilized, due to applicable changes in future MS4 permits.
2. Summary of development projects (conducted and under way)
3. Shared bioretention facilities constructed to date
4. Discharge points constructed to date
5. Drainage management area (DMA) boundary adjustments
6. Changes in phasing of shared bioretention facilities
7. Confirmation that shared bioretention facilities meet 100% of public facilities' and development facilities' standards indicated in Master WQTR for water quality and hydromodification effects through tabulated data summaries.
8. Summary of all monitoring stations installed and locations (with GPS coordinates).
9. Summary and comparison of baseline water quality data and annual monitoring data.
10. An updated map (or maps) that include(s) the following:
    a. Location of public and private development projects
    b. Location of monitoring stations
    c. Location of shared bioretention facilities and their service areas
    d. DMA boundary adjustments
    e. Constructed outfall locations

V. ADDITIONAL CONDITIONS: UNAVOIDALBLE IMPACTS AND COMPENSATORY MITIGATION

A. Unavoidable impacts to waters of the U.S. and/or State are limited to the following:

[1] Currently, Order No. R9-2007-0001, CA0108758

Permanent Impacts-
Wetlands 9.87-acre, 12,645-linear feet
Streambed 0.26-acre, 230-linear feet

Temporary Impacts-
Wetlands 1.41-acre, 1500-feet
Streambed None

B. Impacts and associated mitigation to San Marcos Creek for modifications to the State Route 78 bridge are not covered by this Certification.

C. Compensatory mitigation, and the long-term management of the mitigation areas, is described in two documents: (1) *Revised Compensatory Wetlands Mitigation and Monitoring Plan for the San Marcos Creek Specific Plan*, dated January 5, 2012; and (2) *Habitat Management Plan for the San Marcos Creek Specific Plan Wetland Mitigation Project*, dated December 2011. Mitigation, monitoring, maintenance, and the long-term management of the mitigation areas must be implemented as described in these documents. Any deviations must be approved by the San Diego Water Board.

D. Mitigation must total 60.27-acres and 52,770-linear feet and must consist of the following:

Type	**Acres**	**Linear Feet**
Establishment	23.56	13,975
Re-establishment	1.76	4,515
Enhancement	17.12	13,425
Preservation	9.92	7,280
Buffers	7.91	13,575

D. Mitigation must be phased as follows, unless otherwise modified in the Final Master WQTR. The construction of each proposed phase of mitigation must be concurrent with each phase of discharge of dredge or fill material into on-site waters. If, at any point, the total impacts performed are greater than the total mitigation conducted for longer than one year, the difference must be compensated for by an increased mitigation implementation of 10 percent of the cumulative outstanding mitigation for each month of delay:

Phase	Description	Schedule	Impacts/Mitigation
1A	Discovery Street Widening and Floodwall between Bent and Via Vera Cruz.	Fall 2012– Fall 2013	0.73-Acre of permanent impact; 0.08-Acre of temporary impact.
1B	Enhancement and Preservation from C/E Eastern Boundary to Discovery Road (C/E Western Boundary).	Fall 2012– Fall 2013	30.11-Acres of enhancement; 9.92 of preservation
2A	Caltrans SR-78 Culvert Maintenance	Sept 2012 or with Phase 7	0.51-Acres of temporary impact.
2B	Restoration of SR-78 Culvert Maintenance Temporary Impacts and Enhancement from SR-78 to Johnston Lane (approx. 700 linear feet up stream of SR-78).	Sept 2012 or with Phase 7	0.51-Acre restoration; 0.99-acres of enhancement; 0.01-acre of preservation.
3A	Building pad/earthen fill from Grand Ave to Las Posas Creek on north side of creek and Via Vera Cruz to McMahr on south side.	Fall 2012 – Fall 2013	9.14-Acres of permanent impact; 1.26-acres of temporary impacts.
3B	Mitigation Implementation Between Grand Ave and McMahr.	Fall 2013 – Winter 2014	12.52-Acres of establishment; 1.26-acres of restoration.
4A	New Bridge at Bent Ave and Easement.	Winter 2015 – Spring 2016	0.24-Acre of permanent impact; 0.09-acre of temporary impact.
4B	Revegetation under Bent Ave Bridge & Easement.	Winter 2016	7.68-Acres of establishment; 0.09-acre restoration; 1.1 acre revegetation.
5A	New Bridge at Via Vera Cruz with Easement and Pedestrian Bridge at McMahr.	Spring 2016 – Winter 2017	0.43-Acre of permanent impact; 0.31-acre of temporary impact.
5B	Mitigation Implementation associated with Via Vera Cruz Bridge and Easement and McMahr Bridge.	Winter 2017	0.83-Acres of establishment; 0.31 acre of restoration; 1.55 acre revegetation.
6A	Construction of Embankment for widening of San Marcos Blvd.	Winter 2017 – Winter 2018	0.01-Acre of permanent impact; 0.08-acre of temporary impact.
6B	Realignment of Las Posas	Winter 2017	1.69-Acres of

Phase	Description	Schedule	Impacts/Mitigation
	Creek Channel and wetland floodplain creation.	– Winter 2018	establishment; 0.08-acre of restoration
7A	Caltrans' Construction of SR-78 Bridge and floodplain restoration area (related project, separate permits).	Fall 2017 – Fall 2019	0.09-Acre of permanent impact; 1.4-acre of temporary impact.
7B	Mitigation Implementation from SR-78 project footprint east to SPA C/E boundary. (Includes fill pad removal just east of SR-78).	Fall 2017 – Fall 2019	3.12-Acres of establishment; 1.38-acres of restoration.
7C	Mitigation Implementation (creation) associated with channel widening into upland/developed areas on north side of creek west of McMahr (channel widening required due to increased flood capacity from new SR-78 bridge).	Fall 2017– Fall 2019	2.57-Acres of establishment.

E. The City of San Marcos must restore all areas of temporary impacts and all other areas of temporary disturbance which could result in a discharge or a threatened discharge to waters of the United States and/or State. Restoration must include grading of disturbed areas to pre-project contours and revegetation with native species. The City of San Marcos must implement all necessary BMPs to control erosion and runoff from areas associated with this project.

F. The City of San Marcos must salvage leaf litter, coarse woody debris, and upper soil horizons from impacted jurisdictional water sites that are relatively free of invasive exotic species for use in on-site mitigation areas.

G. The City of San Marcos must also salvage large cuttings from appropriate tree species if they exist at the impact site and use them as pole plantings at the mitigation site.

H. The mitigation sites must be designed and constructed to meet the following conditions:

1. Most of the channel through the mitigation site is characterized by equilibrium conditions, with no evidence of severe aggradation or degradation;

2. 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; and

3. The mitigation site has a well-developed plant community characterized by a high degree of horizontal and vertical interspersion among plant zones and layers.

I. Mitigation areas must be maintained, in perpetuity, 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 10 percent of the on-site or off-site mitigation areas.

J. In conducting the required mitigation and monitoring, the discharger and its consultants must take precautions to prevent the introduction or spread of aquatic invasive species. At minimum, the discharger and its consultants must follow the recommendations of the California Department of Fish and Game to minimize the introduction or spread of the New Zealand mudsnail.

K. Mitigation must be considered acceptable once it has met the pre-determined success criteria for that site, and must be maintained, in perpetuity, in a manner that consistently meets the final success criteria identified.

L. Any maintenance activities that do not contribute to the success of the mitigation sites 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.

M. If at any time during the implementation and establishment of the mitigation areas, and prior to verification of meeting success criteria, a catastrophic natural event (e.g., fire, flood) occurs and impacts the mitigation areas, the City of San Marcos is responsible for repair and replanting of the damaged areas.

N. 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.

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

VI. ADDITIONAL CONDITIONS: MONITORING REQUIREMENTS

A. Benthic Macroinvertebrate Community Analysis

The City of San Marcos must conduct bioassessment monitoring, before, during, and after impacts and mitigation has occurred to assess effects on the biological integrity of San Marcos Creek. Bioassessment must include: 1) the collection and reporting of specified instream biological data, and 2) the collection and reporting of specified instream physical habitat data.

1. Site Locations and Frequency

Macroinvertebrate samples must be collected once per calendar year from 2012 to 2032 at these three locations:

a. One location downstream of the site (Near Discovery Street).

b. One location at or near the 2007 Surface Water Ambient Monitoring Program (SWAMP) monitoring location 904CBSAM3 (Just south of McMahr).

c. One location upstream of the site (near SR 78).

2. Index Period

Macroinvertebrate sampling must be conducted between April 1st and October 1st. Sampling should be conducted when water is present and preferably flowing.

3. Field Methods for Macroinvertebrate Collections

   In collecting macroinvertebrate samples, the City of San Marcos must use the "Reachwide Benthos (Multihabitat) Procedure" specified in Standard Operating Procedures for Collecting Benthic Macroinvertebrate Samples and Associated Physical and Chemical Data for Ambient Bioassessments in California (Ode 2007, available at: http://www.swrcb.ca.gov/swamp/docs/phab_sopr6.pdf).

4. Habitat Assessment Methods

   The City of San Marcos must conduct, concurrently with all required macroinvertebrate collections, the "full" suite of physical/habitat characterization measurements as specified in Standard Operating Procedures for Collecting Benthic Macroinvertebrate Samples and Associated Physical and Chemical Data for Ambient Bioassessments in California (Ode 2007), and as summarized in the Surface Water Ambient Monitoring Program's Stream Habitat Characterization Form — Full Version.

5. Laboratory Methods

   Macroinvertebrates must be identified and classified according to the Standard Taxonomic Effort (STE) Level II of the Southwestern Association of Freshwater Invertebrate Taxonomists (SAFIT; requirements for Level I and Level II taxonomic effort, and are located at: http://www.safit.org/ste.html) and using a fixed-count of 600 organisms per sample.

6. Quality Assurance

   The City of San Marcos must have and follow a quality assurance (QA) plan that covers the required bioassessment monitoring including water quality and toxicity. The QA plan must include, or be supplemented to include, a specific requirement for external QA checks (i.e., verification of taxonomic identifications and correction of data where errors are identified). External QA checks must be performed on one of the discharger's macroinvertebrate samples collected per calendar year, or ten percent of the samples per year (whichever is greater). QA samples must be randomly selected. The external QA checks must be paid for by the discharger, and performed by the California Department of Fish and Game's Aquatic Bioassessment Laboratory. An alternate laboratory with equivalent or better expertise and performance may be used if approved in writing by San Diego Water Board.

7. Sample Preservation and Archiving

   The original sample material must be stored in 70 percent ethanol and retained by the discharger until: 1) all QA analyses specified herein and in the relevant QA plan are completed; and 2) any data corrections and/or re-analyses recommended by the external QA laboratory have been implemented. The remaining subsampled material must be stored in 70 percent ethanol and retained until completeness checks have been performed according to the relevant QA plan. The identified organisms must be stored in 70 percent ethanol, in separate glass vials for each final ID taxon. (For example, a sample with 45 identified taxa would be archived in a minimum of 45 vials, each containing all individuals of the identified taxon.) Each of the vials containing identified organisms must be labeled with taxonomic information (i.e., taxon name, organism count) and collection information (i.e., site name/site code, waterbody name, date collected, and method of collection). The identified organisms must be archived (i.e., retained) by the discharger for a period of not less than three years from the date that all QA steps are completed, and must be checked at least once per year and "topped off" with ethanol to prevent desiccation. The identified organisms must be relinquished to the San Diego Water Board upon request.

   Definitions: The "original sample material" is that material (i.e., macroinvertebrates, organic material, gravel, etc.) remaining after the subsample has been removed for identification. The "remaining subsampled material" is that material (e.g., organic material, gravel, etc.) that remains after the organisms to be identified have been removed from the subsample for identification. (Generally, no macroinvertebrates are present in the remaining subsampled material, but this needs to be verified via QA completeness checks.) The "identified organisms" are those organisms within the subsample that are specifically identified and counted.

8. Data Submittal

   The macroinvertebrate results (i.e., taxonomic identifications consistent with the specified SAFIT STEs, and number of organisms within each taxa) must be submitted to the San Diego Water Board in electronic format. The SWAMP is currently developing standardized formats for reporting bioassessment data. All bioassessment data collected after those formats become available must be submitted using the SWAMP formats. Until those formats are available, the biological data must be submitted in MS-Excel (or equivalent) format.4

The physical/habitat data must be reported using the standard format titled SWAMP Stream Habitat Characterization Form — Full Version.5

The results must be submitted **annually** with the Mitigation Monitoring Reports. A summary must be provided that indicates how the biological criteria for wetlands/riparia in the MMRP areas in San Marcos Creek are related to the IBI/BMI, and physical habitat data and whether or not the success criteria are met for:

a. Overall IBI/BMI rating improvement from Poor, to Fair or Good.

b. Improvement of overall Mean Physical Habitat Assessment Score above 11.5.

B. California Rapid Assessment Method

The City of San Marcos must conduct a quantitative, function-based assessment of the health of wetland and riparian habitats in the impact areas and all mitigation areas using the California Rapid Assessment Method (CRAM)[2] at the three assessment stations described above (in section V.A.1, Benthic Macroinvertebrate Community Analysis). Monitoring must occur prior to impacts, and for at least three years after success criteria have been met and impacts have been completed. The results of the CRAM assessment must be submitted **annually** with the Mitigation Monitoring Reports.

C. Water Chemistry Monitoring

The City of San Marcos must conduct dry and wet weather water quality monitoring, as described below, to assess treatment control effectiveness and demonstrate water quality improvements in the project development area, over baseline conditions in San Marcos Creek and the Specific Plan development area. The treatment control effectiveness assessment must include the collection and reporting of specified water quality data and composited hydrographs.

1. Site Locations and Frequency

Dry weather flows that reach receiving waters from any outfalls within the project area must be sampled and eliminated in accordance with the requirements specified in the MS4 permit applicable at that time.

Wet weather water quality samples in the project area must be collected from at least two rainstorms from 2012 to 2032 at two (2)

[2] Information on CRAM is available at the California Rapid Assessment Method homepage at http://www.cramwetlands.org/

representative outfall locations. The monitoring program must use either a flow weighted composite sampler or grab samples. Flow should be measured, preferably continuously. The constituents that must be tested include, but are not limited to, the following:

a. TSS
b. COD
c. Fecal Coliform
d. NH3
e. NO2+NO3
f. Nitrogen Total Kjeldahl
g. Total phosphorous
h. Total Cd
i. Total Cu
j. Total Pb
k. Total Ni
l. Total Zn

Storms to be sampled should be greater than 0.25 inches. There must be a 72- hour separation between storm events.

2. Field Methods for Water Quality Sampling

   In collecting dry and wet weather water quality samples, the City of San Marcos must use the sample collection methodology approved in either the project specific Quality Assurance Project Plan (QAPP) or the QAPP for the San Diego County Regional Monitoring Program.

3. Laboratory Methods

   Water Quality samples must be collected and analyzed in accordance with holding times, chain of custody, and other sampling protocols listed in the SWAMP or San Diego County Regional Monitoring QAPP for wet and dry weather monitoring.

4. Quality Assurance

   The City of San Marcos must have and follow a quality assurance (QA) plan that covers the required monitoring. The QA plan must include, or be supplemented to include, a specific requirement for external QA checks (i.e. correction of data where errors are identified). External QA checks must be performed on one of the discharger's samples

collected per calendar year, or ten percent of the samples per year (whichever is greater). QA samples must be randomly selected. The external QA checks must be paid for by the discharger. An alternate laboratory with equivalent or better expertise and performance may be used if approved in writing by San Diego Water Board.

5. Data Submittal

   The water quality results must be submitted to the San Diego Water Board in electronic format. All water quality data must be submitted in the same format used for the San Diego County Regional Water Quality Monitoring Program.

   The results of the water quality monitoring must be submitted **annually, with the MS4 Annual Monitoring Report** required by the applicable MS4 permit. A brief narrative summary must also be provided in the MS4 Annual Monitoring Report that indicates whether the water quality data in San Marcos Creek shows BMP effectiveness and improving water quality trends from the project area and in the creek, as development occurs.

D. Hydromodification

Prior to project impacts, and every 5 years after development commences, the City of San Marcos must conduct a channel susceptibility analysis in accordance with the Southern California Coastal Water Research Project guidelines in the adopted Hydromodification Plan (HMP) manual.

1. Site Locations and Frequency

   The channel susceptibility analysis must be conducted in the same location as the bioassessment monitoring stations in San Marcos Creek. The analysis must be conducted every 5 years from 2012 to 2032 to confirm the baseline "low" rating has not changed.

2. Field Methods

   The City of San Marcos must use the adopted HMP SCWWRP methodology for sample collection and analysis.

3. Laboratory Methods

   For samples collected to conduct the channel susceptibility analysis, the City of San Marcos must use the adopted HMP SCWWRP methodology for laboratory sample collection and analysis.

4. Data Submittal

   The results of the channel susceptibility analysis must be submitted to the San Diego Water Board in electronic format **with the MS4 Annual Monitoring Report** for the year in which monitoring was conducted. A summary must be provided that indicates how the channel susceptibility data in San Marcos Creek correlates to maintaining the baseline "low" rating as development occurs.

VII. ADDITIONAL CONDITIONS: NOTIFICATION REQUIREMENTS

A. The City of San Marcos must report to the San Diego Water Board any noncompliance which may endanger human health or the environment. Any information must be provided orally within **24 hours** of the time the City of San Marcos becomes aware of the circumstances. A written submission must also be provided within five (5) days of the time the City of San Marcos becomes aware of the circumstances. The written submission must contain a written description of the incident and its cause, the period of the noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The San Diego Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours.

B. The City of San Marcos must notify the San Diego Water Board of any change in ownership or transfer of certification responsibilities associated with the project or mitigation areas. Notification of change in ownership or transfer of responsibilities must include, but not be limited to, a statement that the City of San Marcos has provided the purchaser/transferee with a copy of the Section 401 Water Quality Certification and that the purchaser/transferee understands and accepts the certification requirements and acknowledges the obligation to implement them and be subject to liability for failure to do so. The seller and purchaser/transferee must sign and date the notification and provide such notification to the Executive Officer of the San Diego Water Board within **10 days** of the transfer. Upon properly noticed transfers of responsibility, the transferee assumes responsibility for compliance with this Certification and references in this Certification to the City of San Marcos will be interpreted to refer to the transferee as appropriate. Transfer does not necessarily relieve the City of San Marcos of this Certification in the event that a transferee fails to comply.

C. Within one year of the start of construction for each phase, the City of San Marcos must submit proof of a completed preservation mechanism that will protect all mitigation areas and their buffers in perpetuity. 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 United States 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.

VIII. ADDITIONAL CONDITIONS: REPORTING REQUIREMENTS

A. The City of San Marcos must submit annual progress reports describing status of compliance with all requirements of this Certification to the San Diego Water Board prior to **August 1** of each year following the issuance of this Certification until the project has reached completion. The City of San Marcos must submit a Final Project Annual Report to the San Diego Water Board prior to **August 1** following completion of the project. The reports must include the following:

1. Date of construction initiation.
2. Date of construction completion.
3. Final map of BMPs for the project and their treatment areas.
4. A link to the updated Final Master WQTR.
5. Final Project Report: As-built drawings no larger than 11"X17", GPS readings, and photodocumentation of post-construction BMPs.

B. Mitigation monitoring reports must be submitted annually until mitigation has been deemed successful. Annual monitoring reports must be submitted prior to **December 1** of each year. Monitoring reports must include, but not be limited to, the following:

1. Names, qualifications, and affiliations of the persons contributing to the report.

2. Completed tabulated summary of the impacts and mitigation acreage, and linear footage that has been completed, with associated dates.

3. Mitigation as-builts, including topography maps and planting locations.

4. Tables presenting the raw data collected in the field as well as analyses of the physical and biological data.

5. Topographic complexity characteristics at each mitigation site.

6. Upstream and downstream habitat and hydrologic connectivity.

7. Source of hydrology.

8. Width of native vegetation buffer around the entire mitigation site.

9. Qualitative and quantitative comparisons of current mitigation conditions with pre-construction conditions and previous mitigation monitoring results, including evaluation of success criteria.

10. Stream photodocumentation, including all mitigation areas and areas of permanent and temporary impact, prior to and after project construction. Photo documentation must be conducted in accordance with guidelines posted at http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/StreamPhotoDocSOP.pdf. In addition, photo documentation must include Geographic Positioning System (GPS) coordinates for each of the photo points referenced.

11. A Survey report documenting boundaries of mitigation area, including Geographic Information System (GIS) shape files (polygons) of the impact and mitigation areas (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.

C. All information requested in this Certification is pursuant to California Water Code (CWC) section 13267. Civil liability may be administratively imposed by the San Diego Water Board for failure to furnish requested information pursuant to CWC section 13268.

D. All reports and information submitted to the San Diego Water 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.

E. All applications, reports, or information submitted to the San Diego Water Board must be signed and certified as follows:

1. For a corporation, by a responsible corporate officer of at least the level of vice president.

2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.

3. 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 may sign applications, reports, or information if:

   a. The authorization is made in writing by a person described 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 San Diego Water Board Executive Officer.

F. All applications, reports, or information submitted to the San Diego Water 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."

G. The City of San Marcos must submit reports required under this Certification, or other information required by the San Diego Water Board, to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
Attn: 401 Certification No. 11C-053
9174 Sky Park Court, Suite 100
San Diego, California 92123

IX. CEQA FINDINGS:

A. The City of San Marcos is the lead agency under the California Environmental Quality Act (Public Resources Code section 21000, et seq., (CEQA)), and issued the Environmental Impact Report, San Marcos Creek Specific Plan, City of San Marcos, State Clearing House No. 2006121080, June 2007.

B. The City of San Marcos City Council issued Resolution No. 2007-6919 Certifying the Environmental Impact Report, San Marcos Creek Specific Plan on June 24, 2007.

C. The City of San Marcos issued San Marcos Creek Specific Plan and Floodway Improvement Project Final EIR Clarifications on July 24, 2007.

D. The San Diego Water Board has reviewed the lead agency's Environmental Impact Report and finds that the project, as proposed, will not have a significant effect on the environment if compensatory mitigation is accomplished as described in the Environmental Impact Report and this certification.

IX. PUBLIC NOTIFICATION OF PROJECT APPLICATION:

A. On July 8, 2011, receipt of the project application was posted on the San Diego Water Board web site to serve as appropriate notification to the public. No public comments were received.

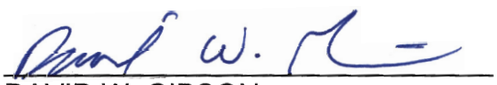
XI. SAN DIEGO WATER BOARD CONTACT PERSON:

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

XII. WATER QUALITY CERTIFICATION:

I hereby certify that the proposed discharge from the **San Marcos Creek Specific Plan** (Certification No. 11C-053) 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 San Diego Water 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 Water Quality Control Plan for the San Diego Basin Region (9) (Basin Plan).



27 January 2012

DAVID W. GIBSON
Executive Officer
Regional Water Quality Control Board

Date

Attachments:

1. Project Information
2. Distribution List
3. Location Map(s)
4. Site Figures(s)
5. Mitigation Figures(s)
6. Required Reports and Notifications Checklist

ATTACHMENT 1
PROJECT INFORMATION

Applicant:	Mr. Jerry Backoff Director of Planning City of San Marcos 1 Civic Center Drive San Marcos, CA 92069 Telephone: 760-744-1050 ext. 3234 Fax: 760-591-4135 Email: jbackoff@san-marcos.net
Applicant Representatives:	None
Project Name:	San Marcos Creek Specific Plan
Project Location:	The proposed project is located in, south and north of San Marcos Creek, between Bent Avenue and Via Vera Cruz, within the City of San Marcos, San Diego County, California. The project is located approximately at latitude 33° 07' 51" north and longitude -117° 11' 34" east.
Type of Project:	Flood control and urban redevelopment.
Project Description:	The San Marcos Creek Specific Plan is a community planning effort designed to provide the necessary framework to create mixed-use/smart-growth zoning, flood control to surrounding properties, and facilitate urban infill by re-evaluating land uses and establishing a Specific Plan for development regulation within the project area over an estimated 20-year time period. The project area consists of approximately 217 acres of land for which mixed use, park land, right-of-way, and dedicated open space are proposed. The project includes the construction of a raised development pad along the north side of San Marcos Creek and a floodwall along San Marcos Creek between the Bent Avenue and Via Vera Cruz to

	provide the necessary floodway infrastructure. Several roadway improvements are also proposed including widening Discovery Street from McMahr Road to the Bent Avenue/Craven Road intersection, constructing bridges at Via Vera Cruz and Bent Avenue, and widening San Marcos Boulevard by approximately 20 feet to include an additional through lane. Park land in the project area would include trails, grassy areas for picnicking, and other amenities, as well as access to a pedestrian bridge at McMahr Road and sidewalks along the new Via Vera Cruz and Bent Avenue bridges, and the adjacent but off-site Grand Avenue Bridge.
Federal Agency/Permit:	U.S. Army Corps of Engineers §404, Individual Permit, Ms. Michelle Mattson.
Other Required Regulatory Approvals:	California Department of Fish and Game (CDFG) § 1600 Master Streambed Alteration Agreement, Ms. Marilyn Fluharty.
California Environmental Quality Act (CEQA) Compliance:	Environmental Impact Report, San Marcos Creek Specific Plan, City of San Marcos, State Clearing House No. 2006121080, June 2007. San Marcos Creek Specific Plan and Floodway Improvement Project, Final EIR Clarifications, City of San Marcos, July 24, 2007.
Receiving Waters:	San Marcos and Las Posas Creeks, Carlsbad hydrologic unit, San Marcos hydrologic area, Richland hydrologic subarea (904.52).
Impacted Waters and Wetlands of the United States and State:	Permanent - Wetlands 9.87-acre, 12,645-linear feet Streambed 0.27-acre, 230-linear feet Temporary - Wetlands 1.41-acre, 1,550-linear feet Streambed None

Dredge Volume: None proposed.

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

Compensatory Mitigation: Mitigation is described in the *Revised Compensatory Wetlands Mitigation and Monitoring Plan for the San Marcos Creek Specific Plan,* dated January 5, 2012 and the *Habitat Management Plan for the San Marcos Creek Specific Plan Wetland Mitigation Project,* dated December 2011. Mitigation will total 60.27-acres / 52,770-linear feet and will consist of:

Type	Acres	Linear Feet
Establishment	23.56	13,975
Re-establishment	1.76	4,515
Enhancement	17.12	13,425
Preservation	9.92	7,280
Buffers	7.91	13,575

Best Management Practices (BMPs): Construction and Post-construction BMPs are described in the *Final San Marcos Creek Specific Plan Master Water Quality and Hydromodification Management Plan* (Final Master WQTR), prepared by the City of San Marcos, and dated December 15, 2011.

Post-construction BMPs will include:

- Low Impact Design development
- Curb inlet filters (88)
- Bioretention basins (7)

Public Notice: On July 8, 2011, receipt of the project application was posted on the San Diego Water Board website to serve as appropriate notification to the public. No public comments were received.

Fees:

Total Due: $40,000.00
Total Paid: $40,000.00 (Check No. 069430)

CIWQS:

Regulatory Measure ID: 380177
Place ID: 711044
Party ID: 11161
Person ID: 108191
WDID 9 000002309

ATTACHMENT 2
DISTRIBUTION LIST

Ms. Michelle Mattson
U.S. Army Corps of Engineers
San Diego Field Office
6010 Hidden Valley Road
Suite 105
Carlsbad, CA 92011
Michelle.L.Mattson@usace.army.mil

Ms. Erica Ryan
Stormwater Program Manager
City of San Marcos
1 Civic Center Drive
San Marcos, CA 92069-2918
eryan@san-marcos.net

Ms. Tricia Wotipka Priest
DUDEK
605 Third Street
Encinitas, CA 92024
Twotipka@dudek.com

Ms. Marilyn Fluharty
California Department of Fish and Game
South Coast Region
Habitat Conservation Planning – North
3883 Ruffin Road
San Diego, CA 92123
MFluharty @dfg.ca.gov

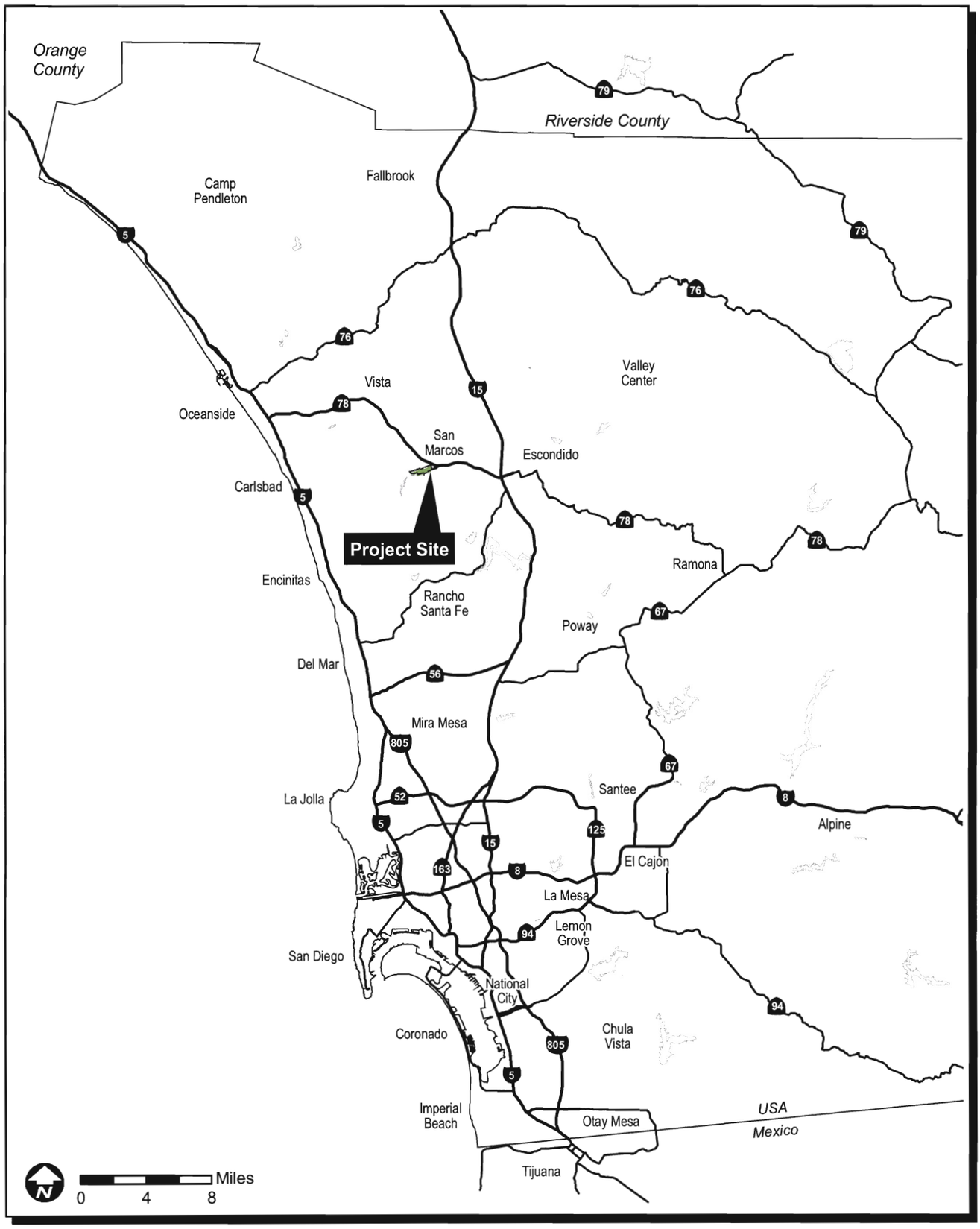
Wetlands Regulatory Office
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105
R9-WTR8-Mailbox@epa.gov

State Water Resources Control Board
Division of Water Quality
401 Water Quality Certification and Wetlands Unit
P.O. Box 100
Sacramento, CA 95812-0100
Stateboard401@waterboards.ca.gov

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

ATTACHMENT 3

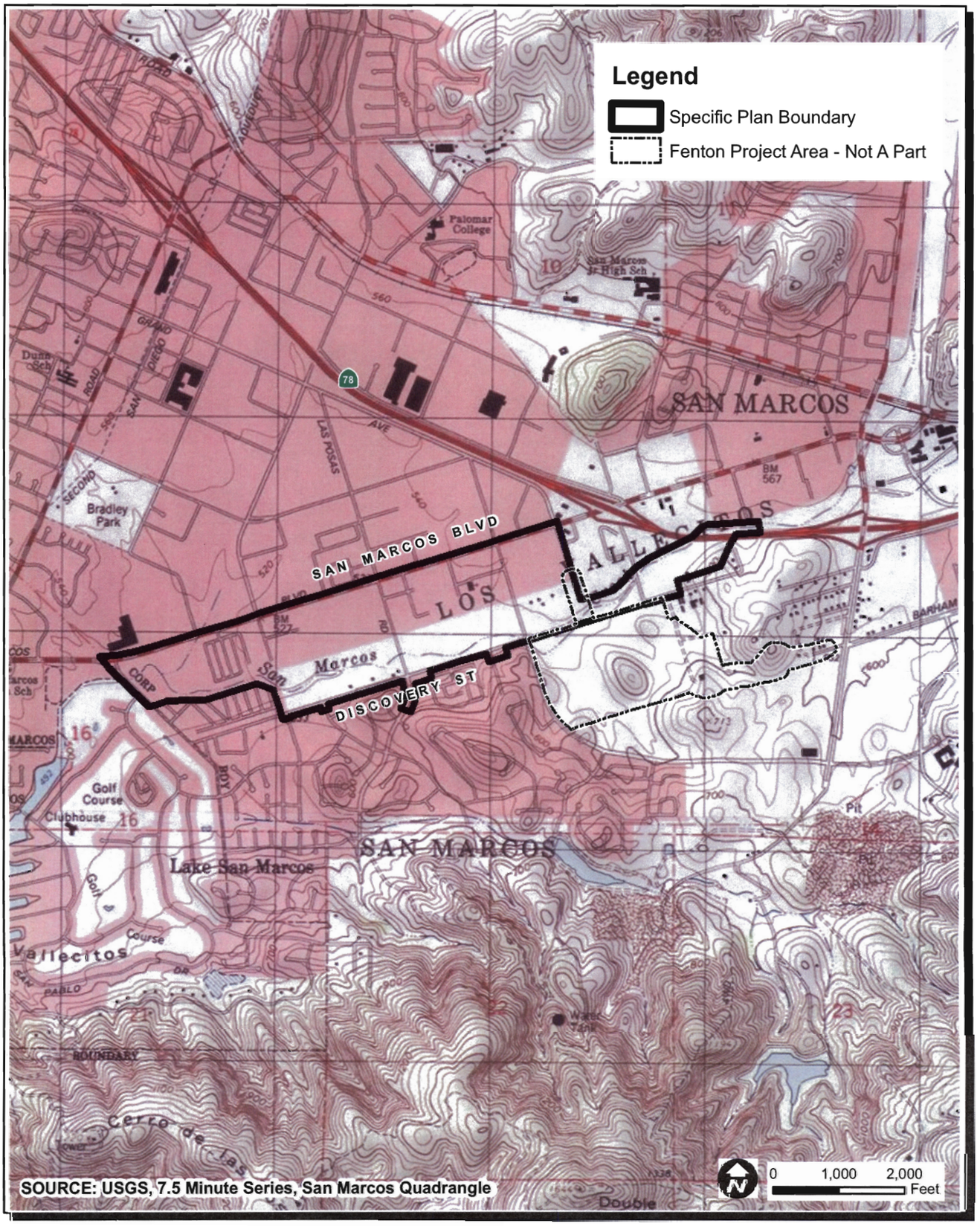
LOCATION MAPS



Compensatory Wetlands Mitigation and Monitoring Plan

Regional Map with Coastal Zone Overlay

FIGURE 1



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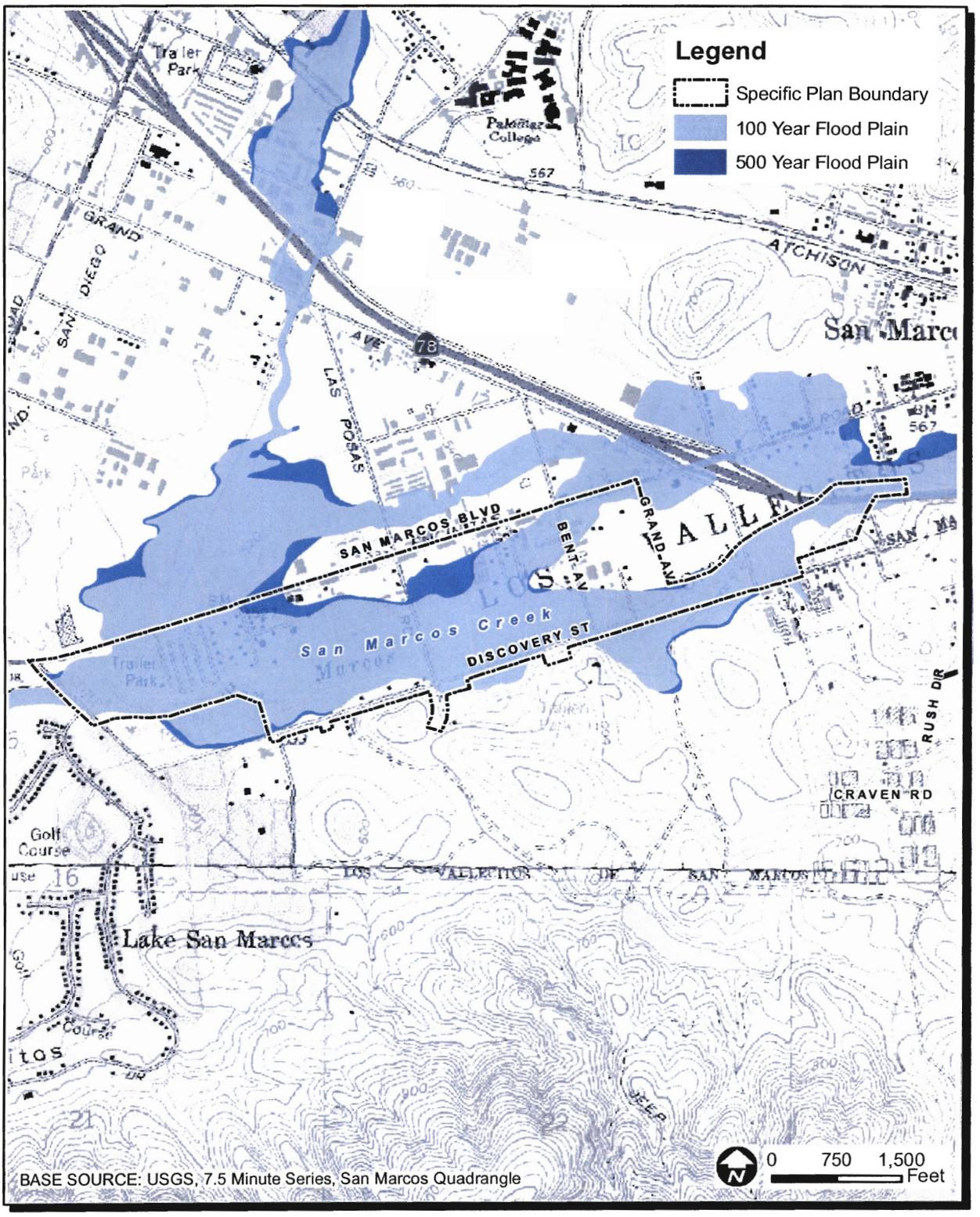
Compensatory Wetlands Mitigation and Monitoring Plan

Vicinity Map

FIGURE 2

ATTACHMENT 4

SITE FIGURES

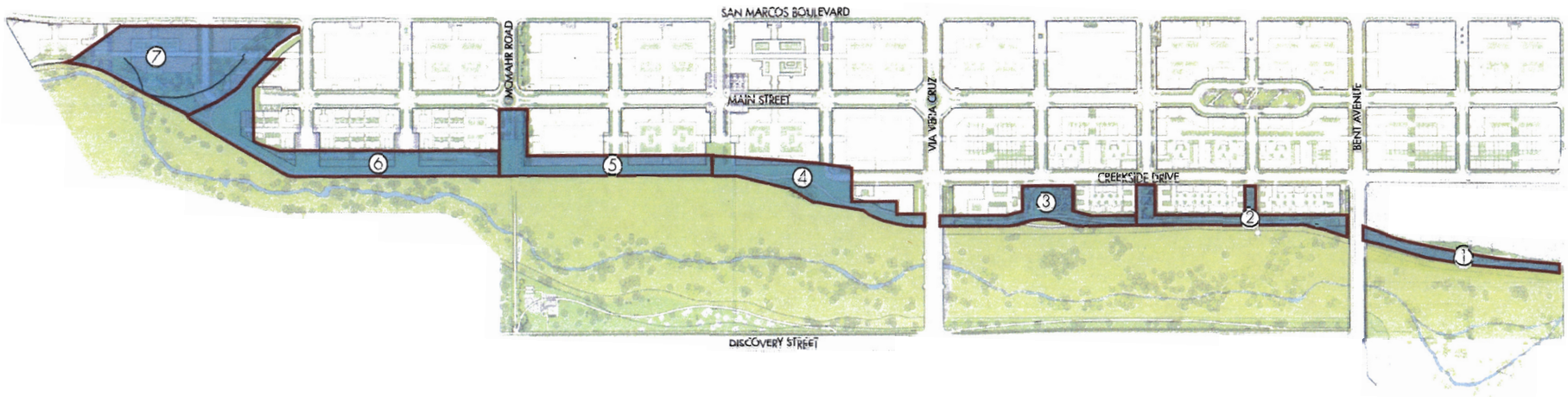


San Marcos Creek Specific Plan - Joint Permit Application

FEMA Flood Plain

FIGURE 3

CREEKSIDE PROMENADE
CONCEPTUAL BIO-INFILTRATION TAKEOFFS



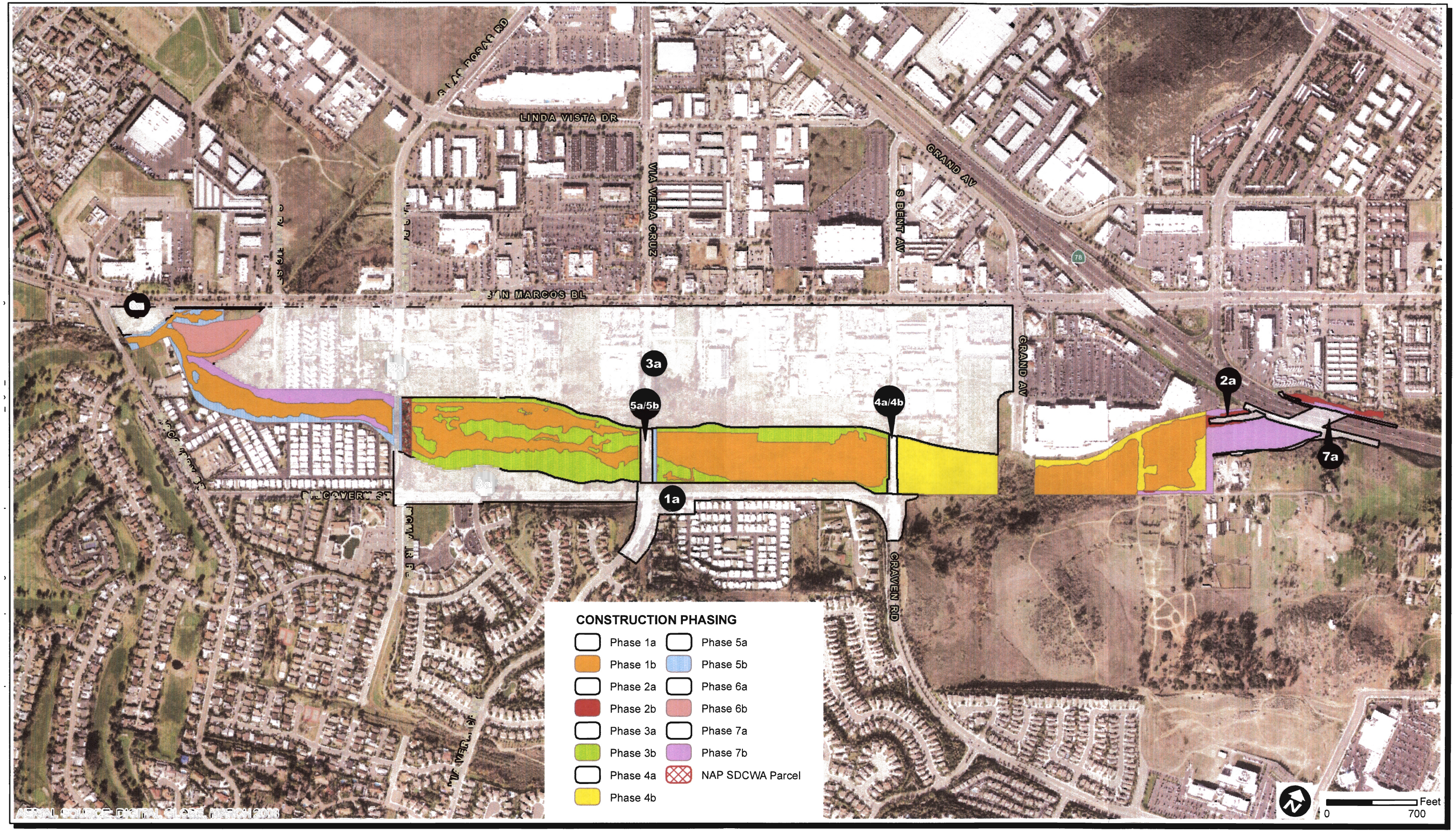
Notes:

This diagram uses the assumption that approximately 10% of the total area could be available for surface biofiltration only. In other words, the design of the LID would preclude recreational uses because of grading or plant materials, etc.

Other LID measures that are compatible with recreational uses could be implemented in remaining open space areas, for example, permeable paving over below grade storage or infiltration areas, surface self-retaining areas that meet accessible 5% maximum slope criteria, etc. Detailed design of these measures is beyond the scope of this study, however we have included a diagrammatic cross-section to illustrate the concept. We have allowed an additional 10% of total area for LID measures that do not preclude recreational uses.

No recreational uses or amenities are planned for Area 7 and so we have included the entire acreage in our tabulation of available bioretention surface area.

DRAINAGE MANAGEMENT AREA	OPEN SPACE (ACRES)	RECREATIONAL USE AREAS (ACRES)	NET AVAILABLE BIORETENTENTION AREA (ACRES)
1	0.95	0.86	0.18
2	1.49	1.34	0.3
3	1.60	1.44	0.32
4	1.43	1.29	0.28
5	1.41	1.27	0.28
6	2.66	2.39	0.54
7	4.73	N/A	4.73
TOTAL	14.27	8.59	6.63



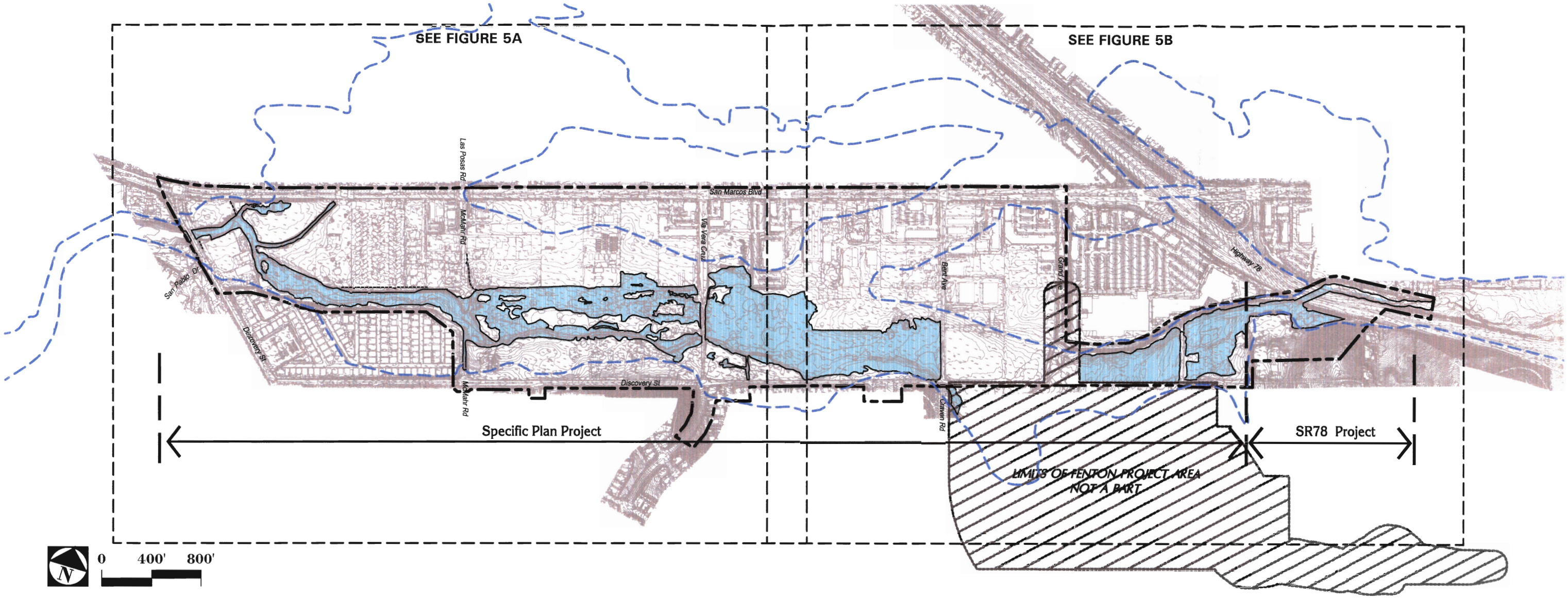
Compensatory Wetlands Mitigation and Monitoring Plan

Construction Phasing

FIGURE 3

ATTACHMENT 5

MITIGATION FIGURES



VEGETATION TYPES/LANDCOVERS LEGEND

ACOE/RWQCB/CDFG WETLANDS:

AM	Alkali Meadow
ARU	Arundo
EUC-W	Eucalyptus Wetlands
FWM	Freshwater Marsh
HW	Herbaceous Wetlands
OC	Open Channel
OW	Open Water
SP	Stock Pond (RWQCB only)
SWS	Southern Willow Scrub
WET RESTORE	Wetlands Restoration
WW	Walnut Woodland

UPLANDS:

AGL	Annual Grassland
CBS	Coyote Brush Scrub
CSS	Coastal Sage Scrub
DEV	Developed Land
DH	Disturbed Habitat
EUC	Eucalyptus Woodland
IS	Isocoma Scrub
ORN	Ornamental
RUD	Ruderal

NOTE: A lower case 'd' in front of a vegetation type designator indicates that it is disturbed.

Waters of the U.S.

Specific Plan Boundary

Jurisdictional Delineation Area

Existing 100-Year Floodplain

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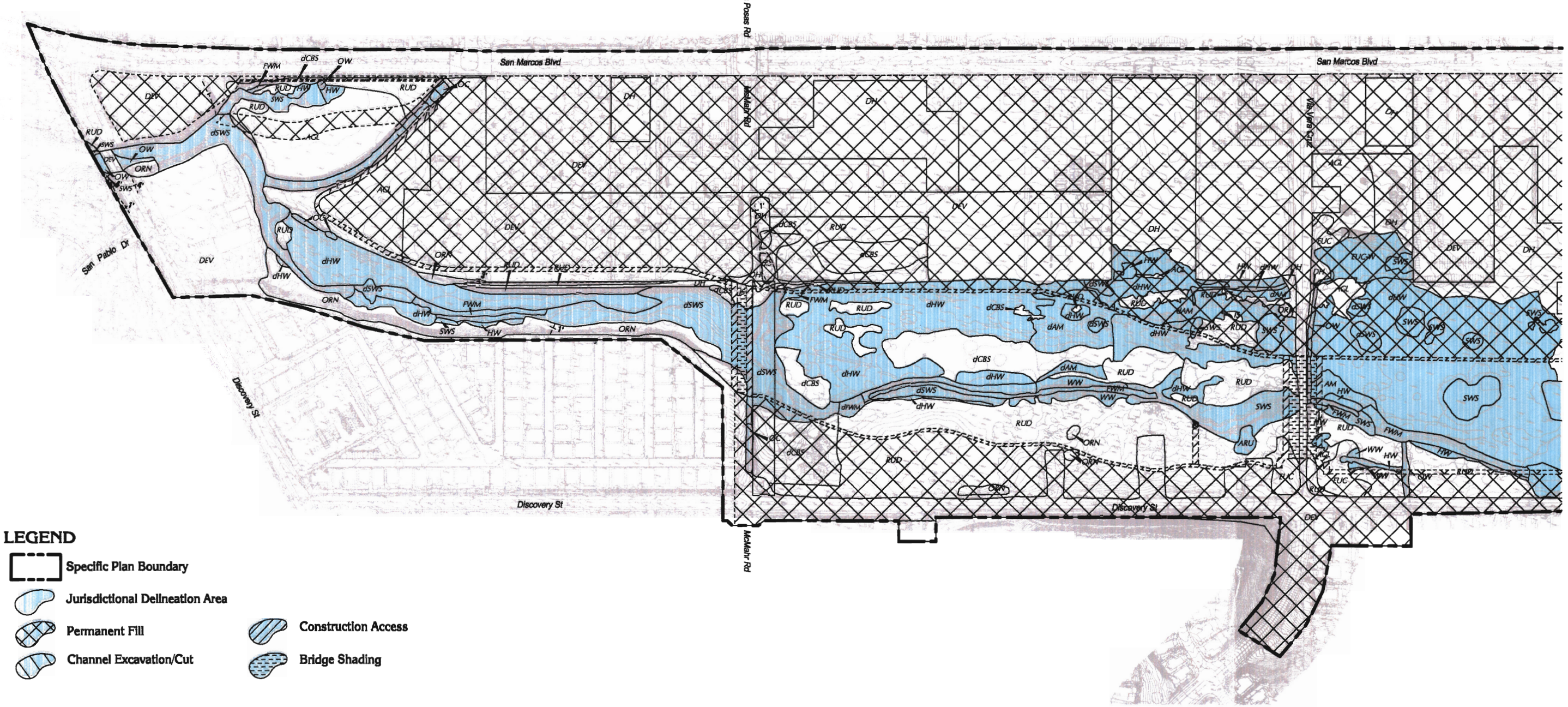
Compensatory Wetlands Mitigation and Monitoring Plan

Jurisdictional Delineation Map Index & Legend

FIGURE 4

Specific Plan Project



LEGEND

- Specific Plan Boundary
- Jurisdictional Delineation Area
- Permanent Fill
- Channel Excavation/Cut
- Construction Access
- Bridge Shading

FOR VEGETATION TYPES/LANDCOVERS LEGEND SEE FIGURE 4

N

0 175' 350'

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Compensatory Wetlands Mitigation and Monitoring Plan

Jurisdictional Delineation Map with Limit of Impact - Western Portion

FIGURE 5A

Specific Plan Project

SR78 Project

San Marcos Blvd

Barr Ave

Grand Ave

Highway 78

Craven Rd

LIMITS OF FENTON PROJECT AREA
NOT A PART

LEGEND

- Specific Plan Boundary
- Jurisdictional Delineation Area
- Permanent Fill
- Channel Excavation/Cut
- Construction Access
- Bridge Shading

FOR VEGETATION TYPES/LANDCOVERS LEGEND SEE FIGURE 4

0 175' 350'

Compensatory Wetlands Mitigation and Monitoring Plan

Jurisdictional Delineation Map with Limit of Impact - Eastern Portion

FIGURE 5B

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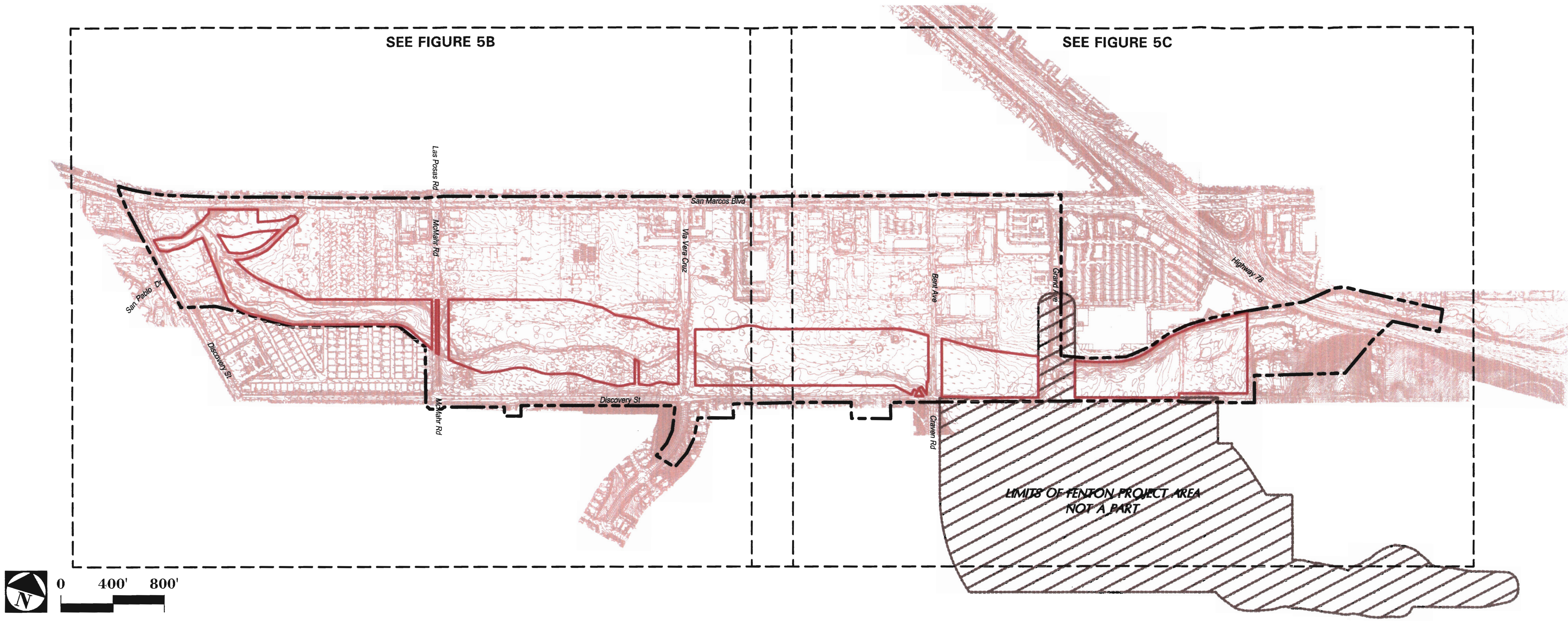

VEGETATION TYPES/LANDCOVERS LEGEND

ACOE/RWQCB/CDFG WETLANDS:

- AM — Alkali Meadow
- ARU — Arundo
- EUC-W — Eucalyptus Wetlands
- FWM — Freshwater Marsh
- HW — Herbaceous Wetlands
- OC — Open Channel
- OW — Open Water
- SP — Stock Pond (RWQCB only)
- SWS — Southern Willow Scrub
- WET RESTORE — Wetlands Restoration
- WW — Walnut Woodland

UPLANDS:

- AGL — Annual Grassland
- CBS — Coyote Brush Scrub
- CSS — Coastal Sage Scrub
- DEV — Developed Land
- DH — Disturbed Habitat
- EUC — Eucalyptus Woodland
- IS — Isocoma Scrub
- ORN — Ornamental
- RUD — Ruderal

NOTE: A lower case 'd' in front of a vegetation type designator indicates that it is disturbed.

Waters of the U.S.

Sensitive Animal Species:

- BCNH — Black-crowned night heron
- COHA — Cooper's hawk
- GRHE — Green heron
- LBVI — Least Bell's vireo
- SNEG — Snowy egret
- TSGS — Two-striped garter snake
- YBCH — Yellow-breasted chat
- YEWA — Yellow warbler

Specific Plan Boundary

Limits of Conservation Easement

Sensitive Plant Species:

- *Hp* — *Hemizonia parryi ssp. australis*
- *Ja* — *Juncus acutus ssp. leopoldi*

(Number after plant label indicates plant count at that location.)

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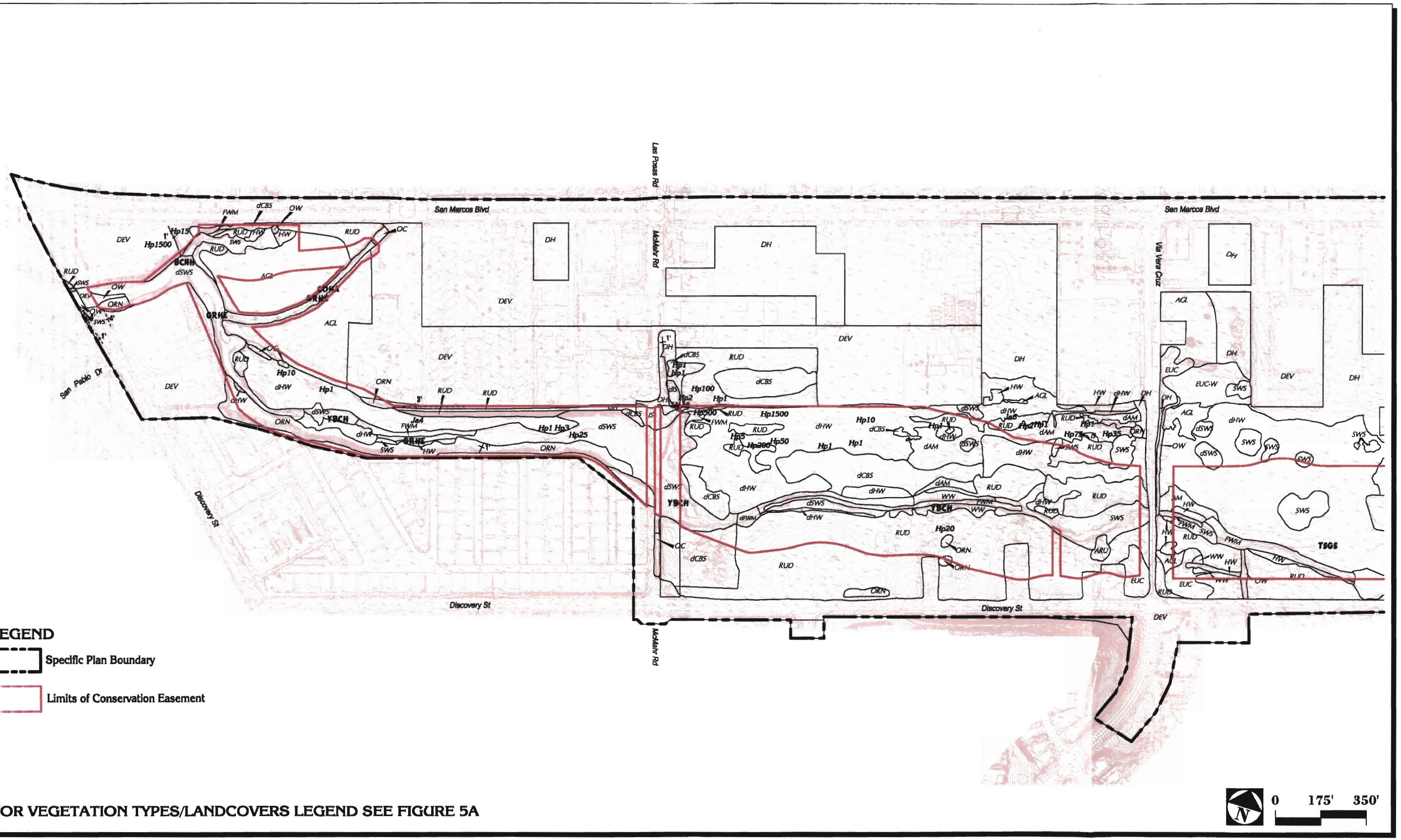
Habitat Management Plan for the San Marcos Creek Specific Plan Wetland Mitigation Project

Biological Resources Map Index & Legend

FIGURE 5A



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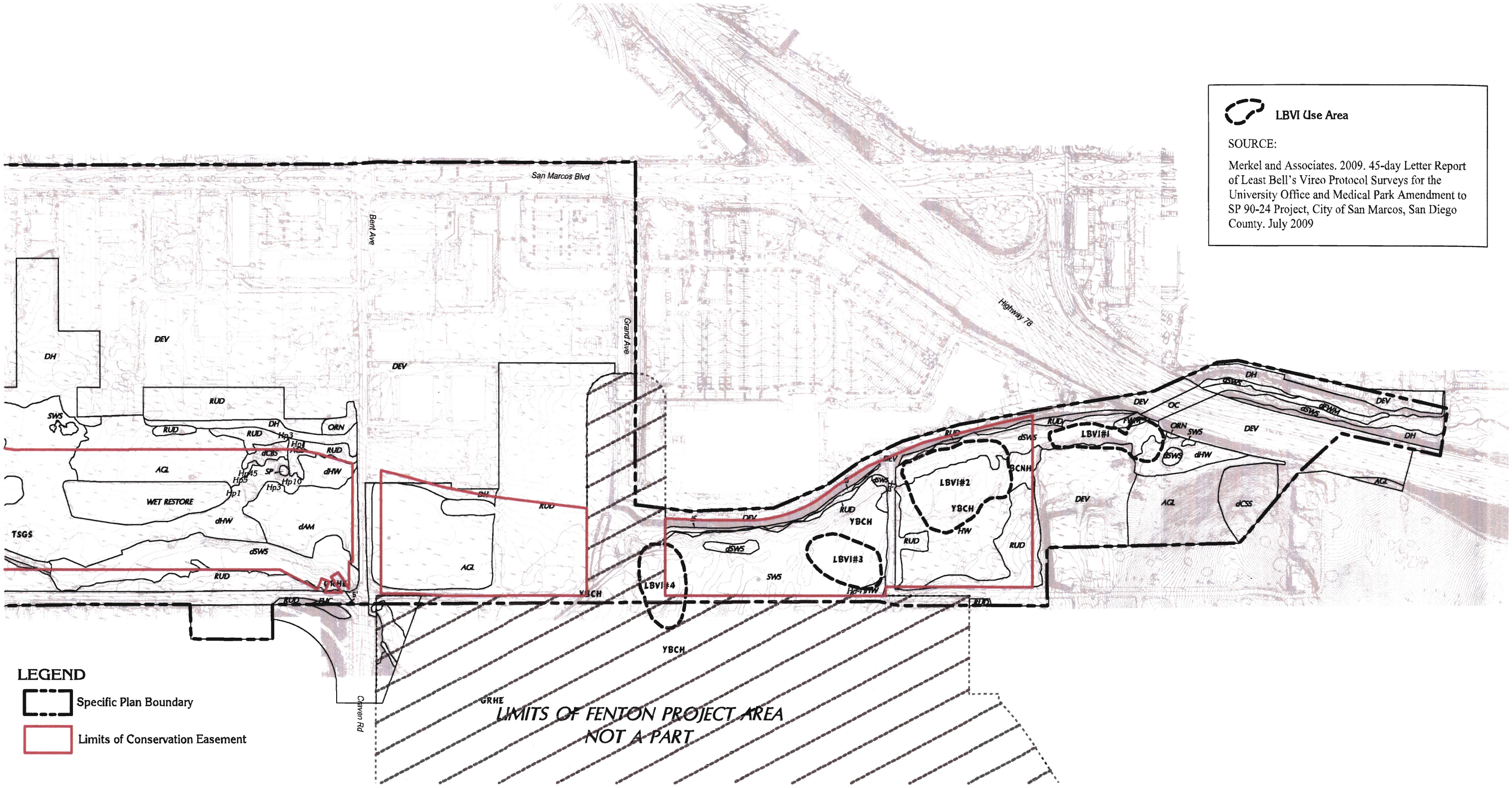
Habitat Management Plan for the San Marcos Creek Specific Plan Wetland Mitigation Project

Biological Resources Map - Western Portion

FIGURE 5B



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Habitat Management Plan for the San Marcos Creek Specific Plan Wetland Mitigation Project

Biological Resources Map - Eastern Portion

FIGURE 5C

MITIGATON LEGEND

- Wetlands Establishment
- Wetlands Restoration/Rehabilitation
- Wetlands Enhancement
- Existing Unisturbed Wetlands (To be preserved in place)
- Uplands Buffer
- Primary Channel
- Secondary Channel
- Existing Flowline
- Development
- Bridge Impacts
- Conservation Easement

0 700

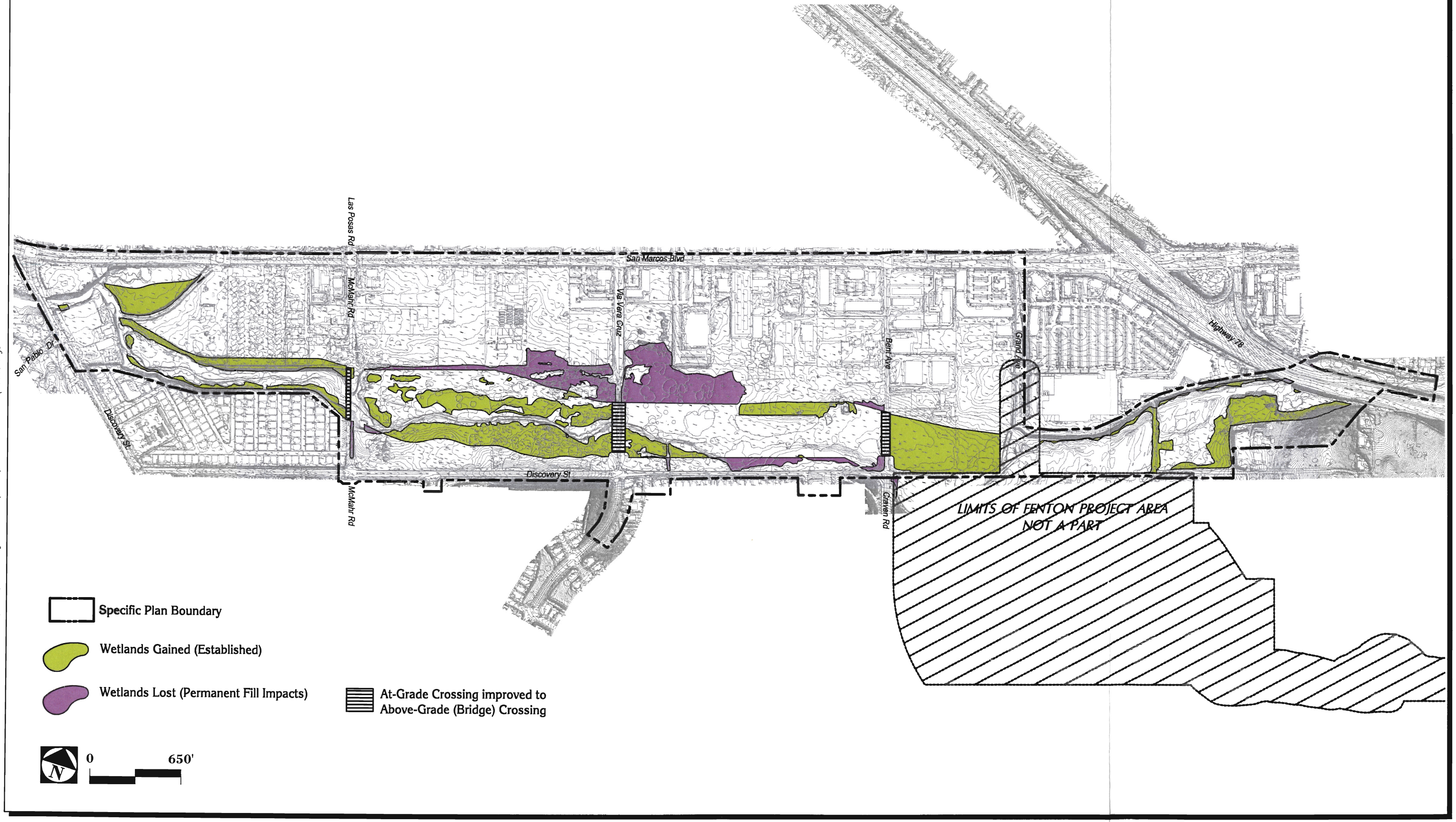
Scale in Feet

DUDEK
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.942.9976

Compensatory Wetlands Mitigation and Monitoring Plan

Overview of Wetlands Mitigation Areas

FIGURE 6a

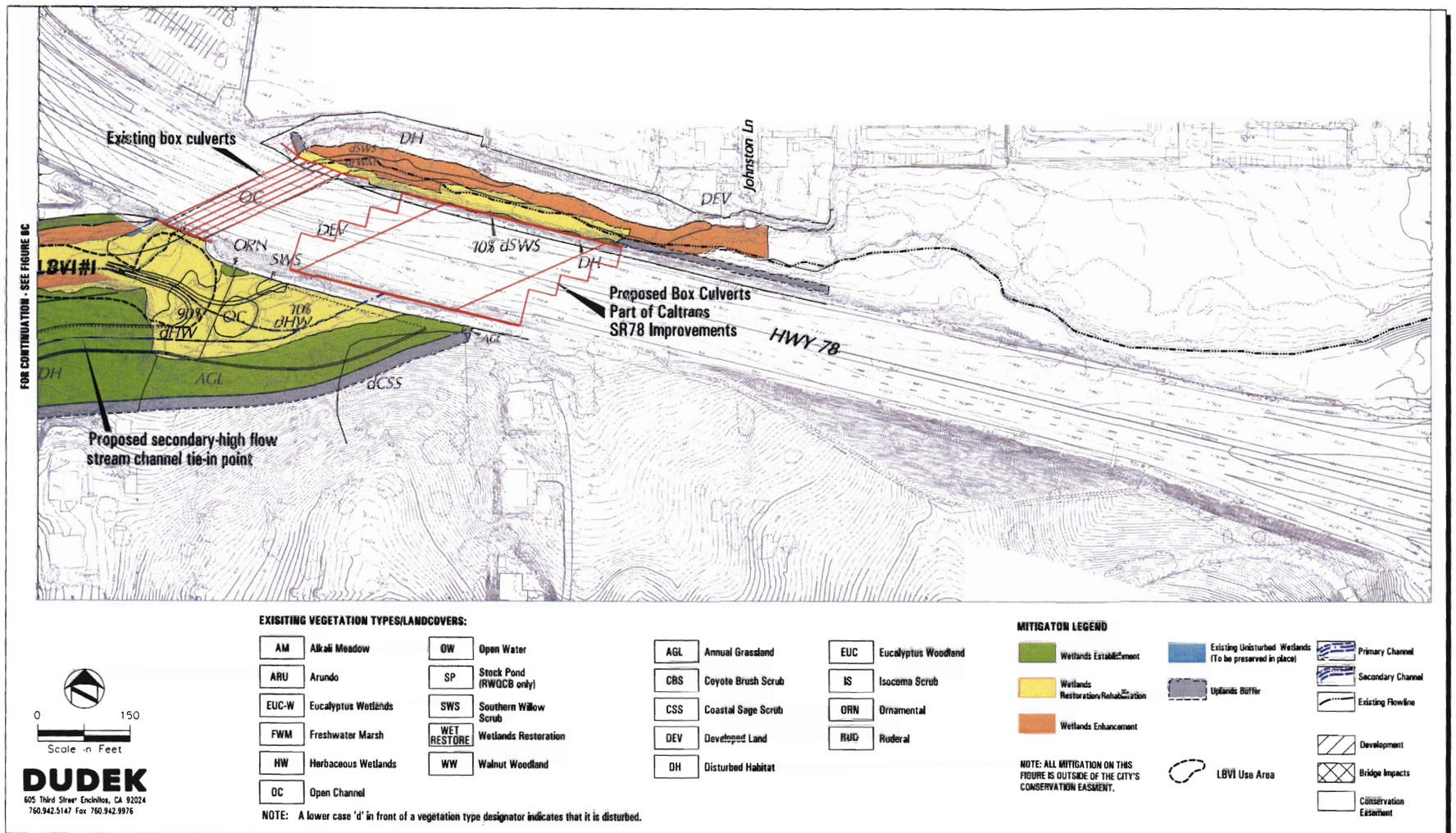


P:\300.Environmental\2286-04 Specific Plan\Conceptual Mitigation Plan\Concept Plan Dec 2011\Native Figs

Compensatory Wetlands Mitigation and Monitoring Plan

FIGURE 7

Permanent Wetland (Fill) Impacts and Wetlands Establishment (Creation) Map Delineating Wetlands Lost vs. Wetlands Gained



EXISITING VEGETATION TYPES/LANDCOVERS:

AM	Alkali Meadow	OW	Open Water	AGL	Annual Grassland	EUC	Eucalyptus Woodland
ARU	Arundo	SP	Stock Pond (RWQCB only)	CBS	Coyote Brush Scrub	IS	Isocoma Scrub
EUC-W	Eucalyptus Wetlands	SWS	Southern Willow Scrub	CSS	Coastal Sage Scrub	ORN	Ornamental
FWM	Freshwater Marsh	WET RESTORE	Wetlands Restoration	DEV	Developed Land	RUD	Ruderal
HW	Herbaceous Wetlands	WW	Walnut Woodland	DH	Disturbed Habitat		
OC	Open Channel						

NOTE: A lower case 'd' in front of a vegetation type designator indicates that it is disturbed.

MITIGATON LEGEND

- Wetlands Establishment
- Wetlands Restoration/Rehabilitation
- Wetlands Enhancement
- Existing Undisturbed Wetlands (To be preserved in place)
- Uplands Buffer
- LBVI Use Area
- Primary Channel
- Secondary Channel
- Existing Flowline
- Development
- Bridge Impacts
- Conservation Easement

NOTE: ALL MITIGATION ON THIS FIGURE IS OUTSIDE OF THE CITY'S CONSERVATION EASEMENT.

0 150
Scale in Feet

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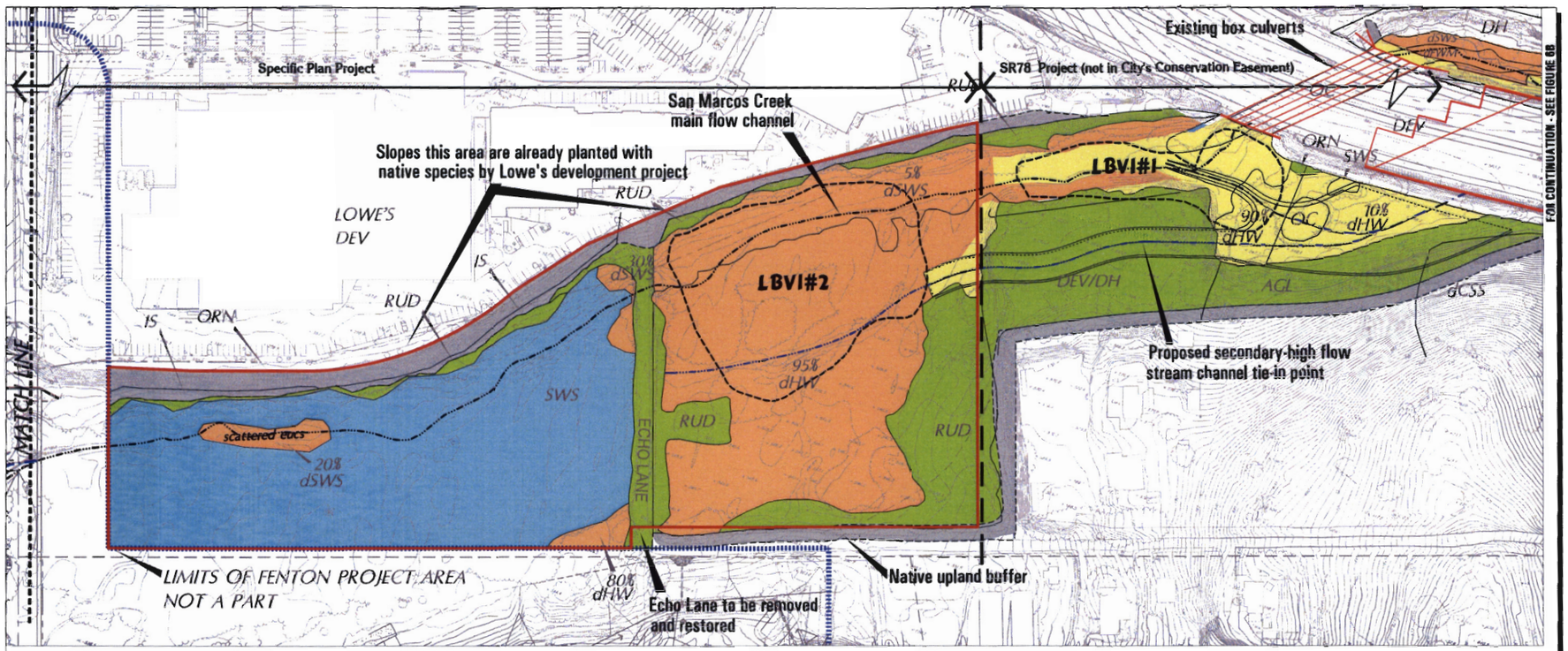
Compensatory Wetlands Mitigation and Monitoring Plan

Wetlands Mitigation Plan

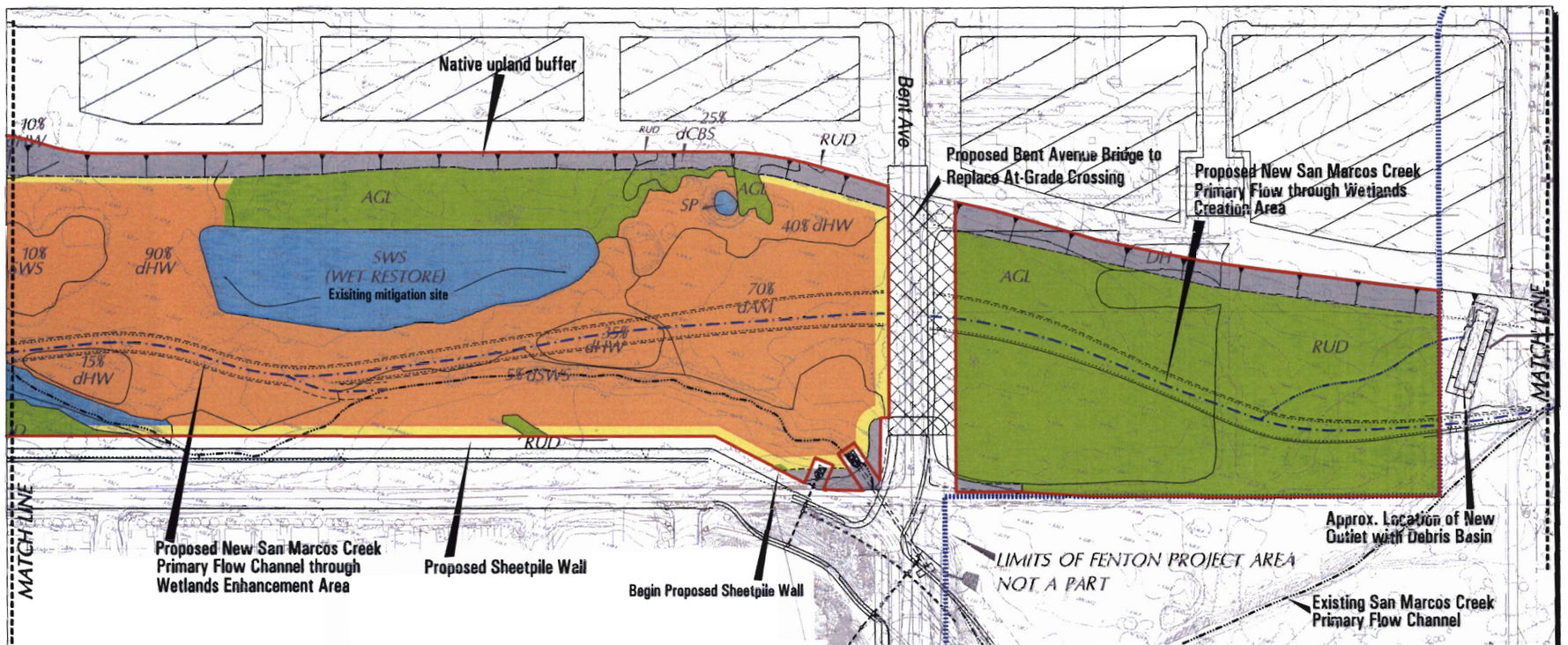
FIGURE 6b



Compensatory Wetlands Mitigation and Monitoring Plan

Wetlands Mitigation Plan

FIGURE 6c



EXISITING VEGETATION TYPES/LANDCOVERS:

AM	Alkali Meadow	OW	Open Water	AGL	Annual Grassland	EUC	Eucalyptus Woodland
ARU	Arundo	SP	Stock Pond (RWQCB only)	CBS	Coyote Brush Scrub	IS	Isocoma Scrub
EUC-W	Eucalyptus Wetlands	SWS	Southern Willow Scrub	CSS	Coastal Sage Scrub	ORN	Ornamental
FWM	Freshwater Marsh	WET RESTORE	Wetlands Restoration	DEV	Developed Land	RUD	Ruderal
HW	Herbaceous Wetlands	WW	Walnut Woodland	DH	Disturbed Habitat		
OC	Open Channel						

NOTE: A lower case 'd' in front of a vegetation type designator indicates that it is disturbed.

MITIGATON LEGEND

- Wetlands Establishment
- Wetlands Restoration/Rehabilitation
- Wetlands Enhancement
- Existing Unisturbed Wetlands (To be preserved in place)
- Uplands Buffer
- Bridge Impacts and Utility Easements (Non-Mitigation Revegetation)
- Primary Channel
- Secondary Channel
- Existing Flowline
- Development
- Conservation Easement

0 150
Scale in Feet

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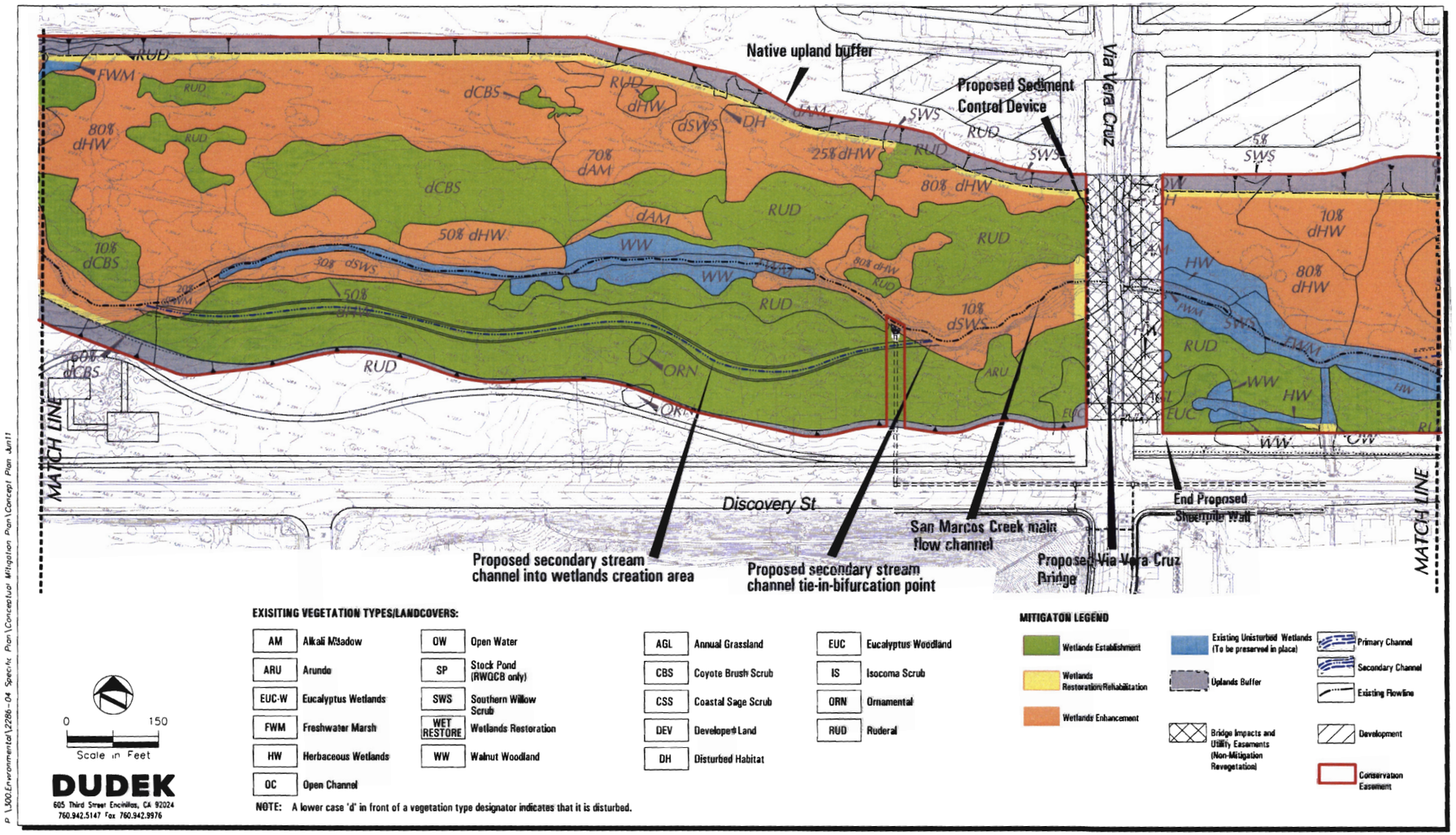
Compensatory Wetlands Mitigation and Monitoring Plan

Wetlands Mitigation Plan

FIGURE 6d



EXISITING VEGETATION TYPES/LANDCOVERS:

AM	Alkali Meadow	OW	Open Water	AGL	Annual Grassland	EUC	Eucalyptus Woodland
ARU	Arundo	SP	Stock Pond (RWQCB only)	CBS	Coyote Brush Scrub	IS	Isocoma Scrub
EUC-W	Eucalyptus Wetlands	SWS	Southern Willow Scrub	CSS	Coastal Sage Scrub	ORN	Ornamental
FWM	Freshwater Marsh	WET RESTORE	Wetlands Restoration	DEV	Developed Land	RUD	Ruderal
HW	Herbaceous Wetlands	WW	Walnut Woodland	DH	Disturbed Habitat		
OC	Open Channel						

NOTE: A lower case 'd' in front of a vegetation type designator indicates that it is disturbed.

MITIGATON LEGEND

- Wetlands Establishment
- Wetlands Restoration/Rehabilitation
- Wetlands Enhancement
- Existing Unisturbed Wetlands (To be preserved in place)
- Uplands Buffer
- Bridge Impacts and Utility Easements (Non-Mitigation Revegetation)
- Primary Channel
- Secondary Channel
- Existing Flowline
- Development
- Conservation Easement

0 150
Scale in Feet

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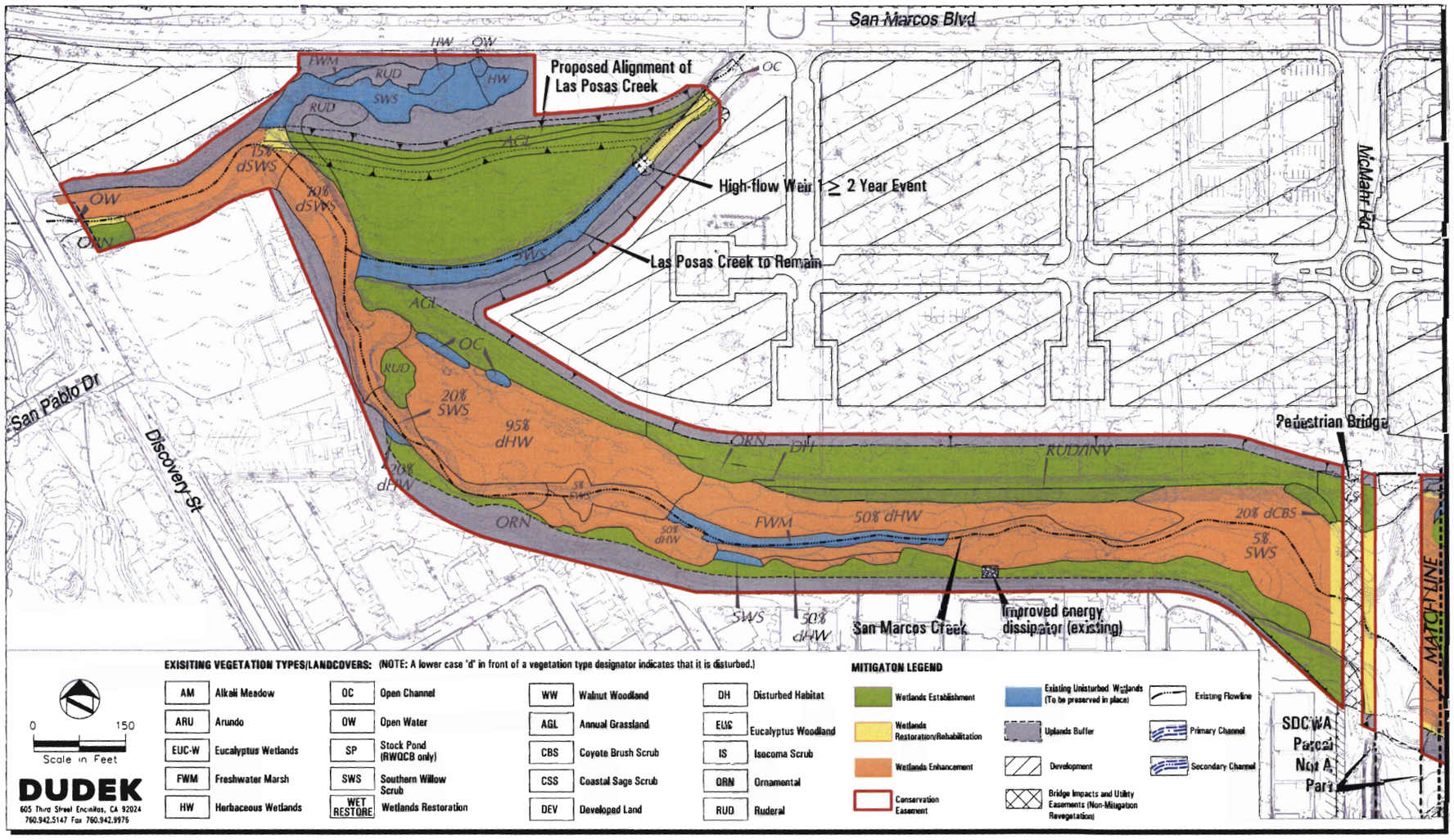
Compensatory Wetlands Mitigation and Monitoring Plan

Wetlands Mitigation Plan

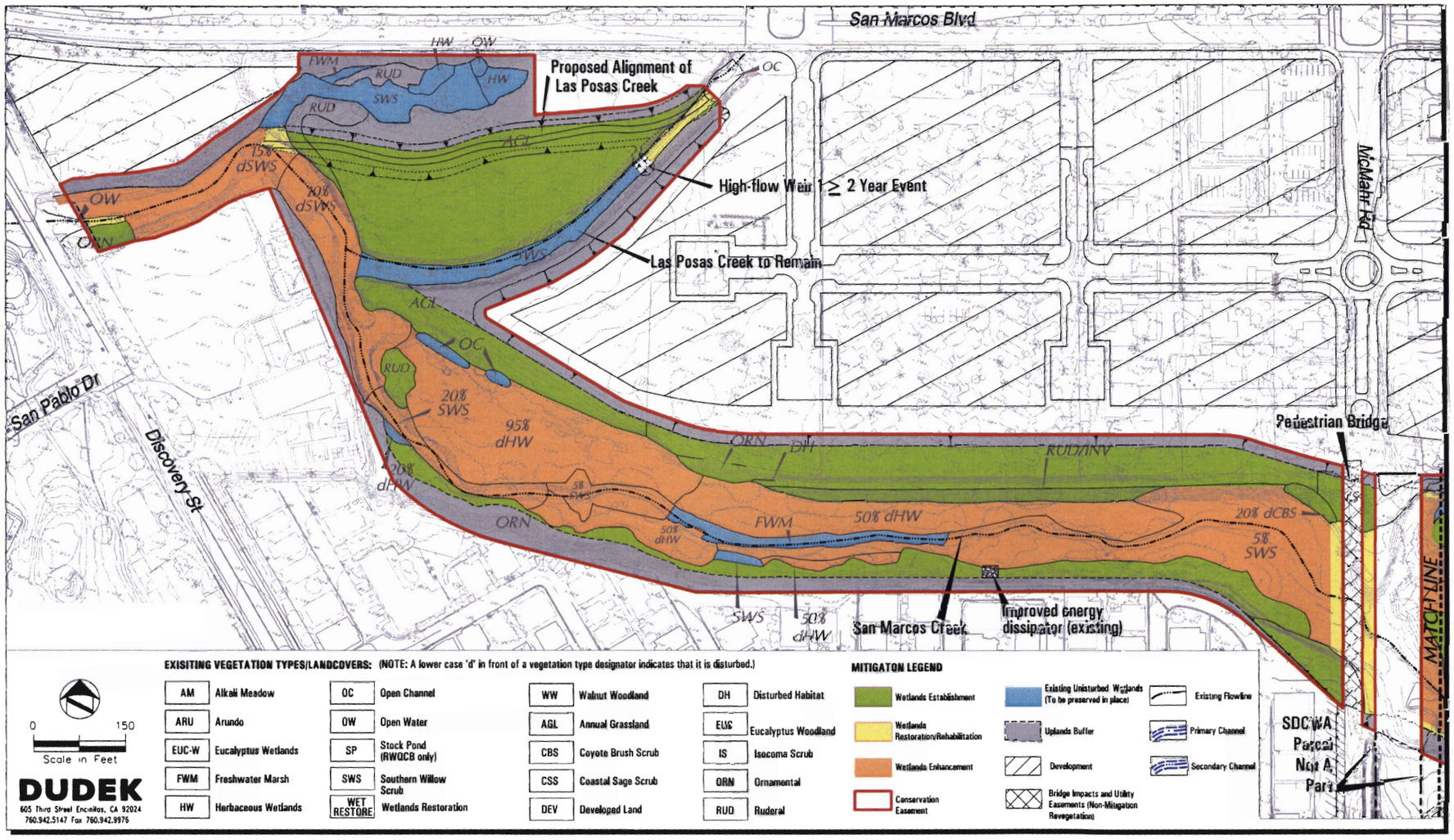
FIGURE 6e



Compensatory Wetlands Mitigation and Monitoring Plan

Wetlands Mitigation Plan

FIGURE 6f



Compensatory Wetlands Mitigation and Monitoring Plan

Wetlands Mitigation Plan

FIGURE 6f

CRAM Post Development Assessment Areas

- CRAM Riverine Post Development Assessment Areas
- CRAM Depressional Post Development Assessment Area
- Groundwater Monitoring Well
- Proposed Soil Pit Data Station
- Proposed Flowlines
- Existing Flowline

Wetlands Mitigation Types

- Wetlands Creation
- Wetlands Enhancement
- Wetlands Restoration
- Existing High Quality Wetlands (Preservation)
- Uplands Buffer

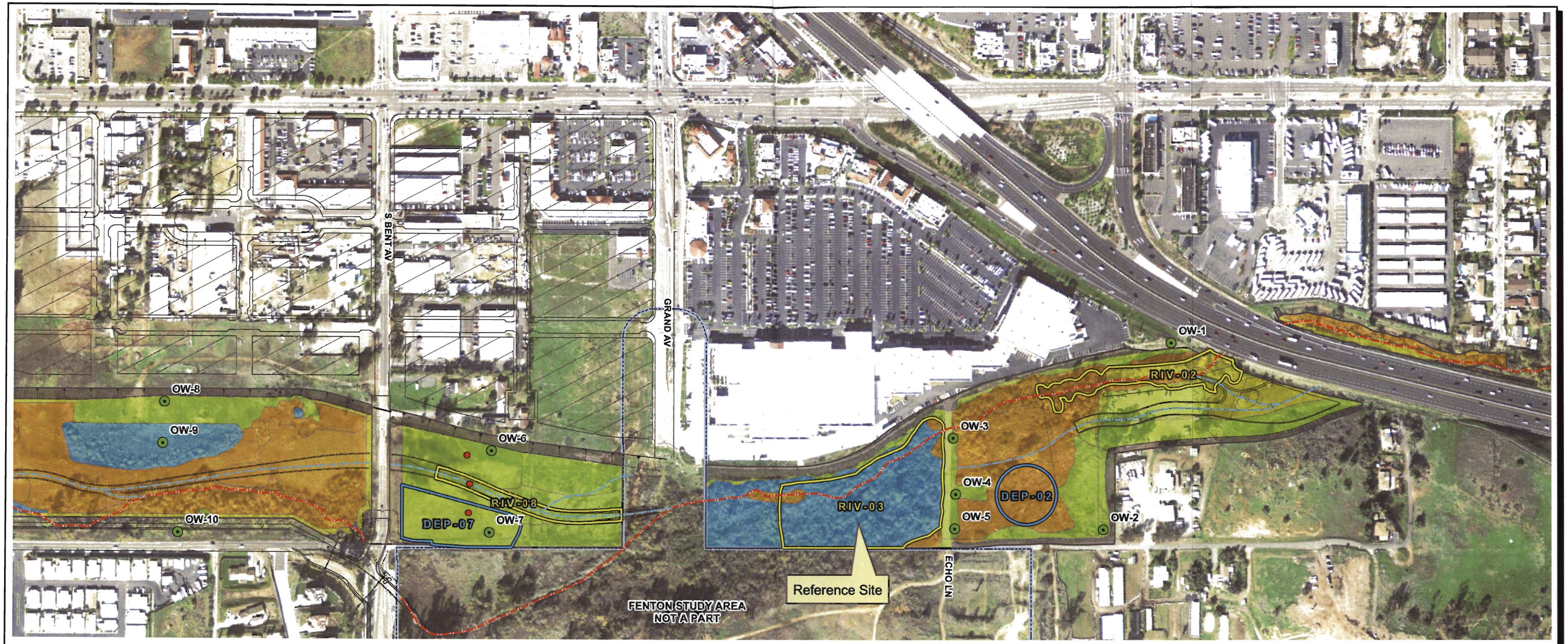
0 Feet 300

AERIAL SOURCE: DIGITALGLOBE 2008

Compensatory Wetlands Mitigation and Monitoring Plan

Wetlands Monitoring Map

FIGURE 8A



CRAM Post Development Assessment Areas

- CRAM Riverine Post Development Assessment Areas
- CRAM Depressional Post Development Assessment Areas
- Groundwater Monitoring Well
- Proposed Soil Pit Data Station

- Proposed Flowlines
- Existing Flowline
- Fenton Project Area (Not A Part)

Wetlands Mitigation Types

- Wetlands Establishment
- Wetlands Enhancement
- Wetlands Restoration
- Existing High Quality Wetlands (Preservation)
- Uplands Buffer

Feet
0
300

AERIAL SOURCE: DIGITALGLOBE 2008

Compensatory Wetlands Mitigation and Monitoring Plan

Wetlands Monitoring Map

FIGURE 8B

San Marcos Creek
Proposed Master WQTR
IBI Monitoring Locations
and
HMP Drainage Management Areas

- Drainage Management Areas ID#
- Discharge Points
- Lakes
- HMP SCWRP Analysis
- Drainage Management Areas (DMA)
- Proposed IBI Monitoring Locations
- San Marcos Creek Specific Plan Area
- Discovery Street ROW (Included in master WQTR analysis)
- San Marcos City Limits

Source of Data: City of San Marcos, 7/2009 & 12/2011
Created By: City of San Marcos GIS

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SOURCE: CITY OF SAN MARCOS 2011

Compensatory Wetlands Mitigation And Monitoring Plan

San Marcos Creek Proposed Master WQTR IBI Monitoring Locations and HMP Drainage Management Areas

FIGURE 9

ATTACHMENT 6

REQUIRED REPORTS AND NOTIFICATIONS CHECKLIST

Checklist of Required Reports and Notifications

Required Notifications: 401 Certification No. 11C-053

Notification Requirement	Required Notification Period	Required Condition(s) To Be Met	Date Received
Unauthorized Discharge	Within 24 Hours of Discharge	VII.A	
Transfer of Responsibilities	Within 10 Days of Transfer	VII.B	
Mitigation Preservation Mechanism	Prior to construction commencement; Final within 1 year of each construction phase.	VII.C	

Required Reports and Submittals: 401 Certification No. 11C-058

Required Report	Due Date	Required Condition(s) To Be Met	Date Received
BMI Analysis	December 1st, Annually	VI.A.	
CRAM Analysis	December 1st, Annually	VI.B.	
Water Chemistry Monitoring	Annually with MS4 Permit Report	VI.C.	
Hydromodification Monitoring	Annually with MS4 Permit Report	V.I.D.	
Annual Project Report	August 1st, Annually	VIII.A	
Mitigation Monitoring Reports	December 1st, Annually	VIII.B.	
Final Annual Project Report	August 1st, After Project Completion	VIII.A	