



EDMUND G. BROWN JR.  
GOVERNOR

MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

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**California Regional Water Quality Control Board, San Diego Region**

November 22, 2013

**Certified Mail – Return Receipt Requested**  
Article Number: 7011 0470 0002 8961 5889

Mr. Harry Persaud  
Orange County Public Works  
300 North Flower Street, Suite 622  
Santa Ana, CA 92703

**In reply/refer to: 783152:dbradford**

**Subject: Clean Water Act Section 401 Water Quality Certification No. 12C-056  
for the La Pata Avenue Extension Project**

Mr. Persaud:

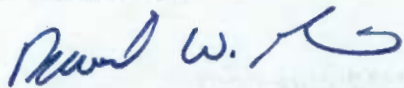
Enclosed find Clean Water Act Section 401 Water Quality Certification No. 12C-056 (Certification) issued by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board ) in response to the application submitted on behalf of Orange County Public Works for the La Pata Avenue Extension Project (Project). A description of the Project and Project location can be found in the Certification, location map, and site maps which are included as attachments to the Certification.

Orange County Public Works is enrolled under State Water Resources Control Board Order No. 2003-017-DWQ as a condition of the Certification and is required under that Order to implement and comply with all terms and conditions of the Certification in order to ensure that water quality standards are met for the protection of wetlands and other aquatic resources. Failure to comply with all terms and conditions of this Certification may subject Orange County Public Works to enforcement actions by the California Regional Water Quality Control Board, San Diego Region, 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.

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

In the subject line of any response, please include reference number 783152:dbradford. For questions or comments, please contact Darren Bradford by telephone at (858) 637-7137 or by email at DBradford@waterboards.ca.gov.

Respectfully,



DAVID W. GIBSON  
Executive Officer

Enclosure:

Clean Water Act Section 401 Water Quality Certification No. 12C-056 for the La Pata Avenue Extension Project.

DWG:jgs:db:kd:dlb

cc: Refer to Attachment 2 of Certification 12C-056 for the Distribution List.

Tech Staff Info & Use	
Certification No.	12C-056
Party ID	525588
File No.	12C-056
WDID	9000002481
NPDES No.	None
Regulatory ID	386024
Place ID	783152
Person ID	534961
Inspection ID	None



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## California Regional Water Quality Control Board, San Diego Region

### 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:** La Pata Avenue Extension Project  
Certification Number 12C-056  
WDID: 9000002481

Reg. Meas. ID: 386024  
Place ID: 783152  
Party ID: 525588  
Person ID: 534961

**APPLICANT:** Orange County Public Works  
300 North Flower Street, Suite 622  
Santa Ana, CA 92703

#### 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 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

Orange County Public Works (hereinafter Applicant) submitted an application dated June 29, 2012, for Water Quality Certification pursuant to section 401 of the Clean Water Act for the proposed La Pata Avenue Extension Project (Project). The Applicant proposes to discharge fill material to waters of the United States and/or State associated with construction activity at the Project site.

The Project is located within the Cities of San Clemente and San Juan Capistrano, as well as in unincorporated Orange County, California. The project center reading is located at latitude 33.50865 N and longitude -117.619444 W. The Applicant has paid all required fees in the amount of \$59,000.00. On July 7, 2012, the San Diego Water Board provided public notice of the Project application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the San Diego Water Board's web site and providing a period of twenty-one days for public review and comment. No comments were received.

The Applicant proposes to widen La Pata Avenue from three to five lanes from approximately 900 feet south of State Route 74 (SR-74) in the City of San Juan Capistrano to the existing road terminus at the Orange County Prima Deshecha Landfill; implement a gap closure by constructing four new lanes from the existing terminus to the intersection of Calle Saluda and Avenida La Pata in the City of San Clemente; and extend Camino Del Rio as a four-lane roadway from its existing terminus in the Forster Ranch community of San Clemente to the proposed Avenida La Pata Roadway in Orange County, California. The roadway cross section includes 8-foot wide shoulders on each side of La Pata Avenue to accommodate Class II bicycle lanes. The road will parallel Interstate 5 and will function as a primary arterial highway through southern Orange County. The Project is divided into three segments. The northern segment encompasses drainages which are tributaries to San Juan Creek. The central segment includes significant grading for landslide stabilization and an associated borrow area (borrow area). The central segment extends through Prima Deshecha Landfill and includes drainages which are tributaries to Prima Deshecha Cañada. The southern segment begins at the southern boundary of Prima Deshecha Landfill and extends to the southern terminus at Calle Saluda and encompasses drainages which are tributaries to Segunda Deshecha Cañada. There will be multiple stream and wetland crossings within the project footprint.

The Project will add approximately 41 acres of additional impervious surface. Post-construction Best Management Practices (BMPs) will consist of several source control and treatment control BMPs to reduce the discharge of pollutants of concern. Six extended detention basins are proposed that will target sediment, nutrients, metals, bacteria, trash, oil and grease, and organics. Three of the extended detention basins may be substituted with bioretention BMPs, whose pollutant removal efficiencies would equal or exceed that of the extended detention basin. In addition, low impact development (LID) BMPs are proposed at 16 locations along the proposed roadway that will target heavy metals, phosphorus, nitrogen, sediment, oil, grease, and bacteria. LID BMPs may include bioretention areas with underdrains, vegetated bioswales, landscaped areas with detention, bioretention planter boxes, or other LID biofiltration BMPs that must meet Orange County's low impact development capture volume and hydromodification treatment requirements.

The Project application includes a description of the design objective, operation, and degree of treatment expected to be attained from equipment, facilities, or activities (including construction and post-construction BMPs) to treat waste and reduce runoff or other effluents which may be discharged. Compliance with the Certification conditions will help ensure that construction and post-construction discharges from the Project will not cause onsite or offsite downstream erosion, damage to downstream properties, or otherwise damage stream habitats in violation of water quality standards in the Water Quality Control Plan for the San Diego Basin (9) (Basin Plan).

Project construction will permanently impact 0.04 acre of wetland and 1.48 acre (13,258 linear feet) of non-wetland waters (streambed) of the United States and/or State. The Applicant reports that the Project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impacts to aquatic resources considering all potential

practicable alternatives, such as the potential for alternate available locations, designs, reductions in size, configuration or density.

The Applicant reports that compensatory mitigation for the permanent loss of 1.52 acre of waters of the United States and/or State will be achieved through the establishment, restoration, and enhancement of 14.07 acres of waters of the United States and/or State. All waters of the United States and/or State receiving temporary discharges will be restored to pre-project contours and revegetated with native species, except for replacement channels in the area identified as the "borrow area" on the Project plans. An additional 2:1 ratio of off-site enhancement/restoration mitigation (in addition to the on-site 1:1 ratio) for the borrow area drainages will be implemented along with the planned off-site mitigation for permanent impacts. Mitigation for permanent discharges of fill to waters of the State and/or U.S. will be completed at a minimum ratio of 9.23:1 (area mitigated:area impacted) by Orange County Public Works on-site along the La Pata Avenue Extension (4.69 acre of wetland and non-wetland waters established/re-established) and off-site within Trabuco Creek at the O'Neil Regional Park (HSA 901.23) and San Juan Creek (HSA 901.25) (9.38 acres of wetland and riparian enhancement and/or re-establishment). This Certification requires the establishment of compensatory mitigation, which offsets the adverse water quality impacts attributed to the Project in a manner that protects and restores the abundance, types and conditions of aquatic resources and supports their beneficial uses.

Detailed written specifications and work descriptions for the compensatory mitigation project including, but not limited to, the geographic boundaries of the project, timing, sequence, monitoring, maintenance, ecological success performance standards and provisions for long-term management and protection of the mitigation areas are described in the *Mitigation and Monitoring Plan for the La Pata Avenue Extension Project*, (Mitigation Plan), dated June, 2013. The Mitigation Plan is incorporated in this Certification by reference as if set forth herein. The Mitigation Plan was developed in consideration of the *Southern Orange County Multi-species Habitat Conservation Plan* (HCP) and the *San Juan Creek Watershed Special Area Management Plan* (SAMP). The Mitigation Plan provides for implementation of compensatory mitigation, which offsets adverse water quality impacts attributed to the Project in a manner that protects and restores the abundance, types and conditions of aquatic resources and supports their beneficial uses.

Additional Project details are provided in Attachments 1 through 5 of this Certification.

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### Attachments:

1. Definitions
2. Distribution List
3. Project Location Maps
4. Project Site Plans
5. Mitigation Figures

## I. STANDARD CONDITIONS

Pursuant to section 3860 of Title 23 of the California Code of Regulations (23 CCR), 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 Article 6 (commencing with section 3867 of 23 CCR).
- 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 23 CCR subsection 3855(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 chapter 28 (commencing with section 3830) of 23 CCR and owed by the applicant.

## II. GENERAL CONDITIONS

- A. **Term of Certification.** Water Quality Certification No. 12C-056 (Certification) shall expire: a) upon the expiration or retraction of the Clean Water Act section 404 permit issued by the U.S. Army Corps of Engineers for this Project, or b) five (5) years of the date of issuance of this Certification, whichever occurs first.
- B. **General Waste Discharge Requirements.** The requirements of this Certification are enforceable through 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 (Water Quality Order No. 2003-0017-DWQ). This provision shall apply irrespective of whether a) the federal permit for which this Certification was obtained is subsequently retracted or is expired or b) the Certification is expired. Water Quality Order No. 2003-0017-DWQ is accessible at:  
[http://www.waterboards.ca.gov/water\\_issues/programs/cwa401/docs/generalorders/gowdr401regulated\\_projects.pdf](http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/gowdr401regulated_projects.pdf).
- C. **Project Conformance with Application.** All water quality protection measures and BMPs described in the application and supplemental information for water quality certification are incorporated by reference into this Certification as if fully stated herein. Notwithstanding any more specific conditions in this Certification, the Applicant shall construct, implement and comply with all water quality protection measures and BMPs described in the application and supplemental information. The conditions within this Certification shall supersede conflicting provisions within the application and supplemental information submitted as part of this Certification action.

**D. Project Conformance with Water Quality Control Plans or Policies.**

Notwithstanding the specific conditions in this Certification, the Project shall be constructed and operated in a manner consistent with the Basin Plan and any other applicable water quality control plans or policies for water quality control adopted or approved pursuant to the Porter Cologne Water Quality Act (Division 7, commencing with WC Section 13000) or section 303 of the Clean Water Act.

**E. Project Modification.** The Applicant must submit any changes to the Project, including Project operation, which would have a significant or material effect on the findings, conclusions, or conditions of this Certification, to the San Diego Water for prior review and written approval. If the San Diego Water Board is not notified of a significant change to the Project, it will be considered a violation of this Certification.

**F. Certification Distribution and Posting.** During Project construction, the Applicant must maintain a copy of this Certification at the Project site. This Certification must be available at all times to site personnel and agencies. A copy of this Certification shall also be provided to any contractor or subcontractor performing construction work, and the copy shall remain in their possession at the Project site. The Applicant shall be responsible for work conducted by the contractor or subcontractors.

**G. Inspection and Entry.** The Applicant must allow the San Diego Water Board or the State Water Resources Control Board, and/or their authorized representative(s) (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents as may be required under law, to:

1. Enter upon the Project or Compensatory Mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Certification.
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Certification.
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Certification.
4. Sample or monitor, at reasonable times, for the purposes of assuring Certification compliance, or as otherwise authorized by the Clean Water Act or California Water Code (Water Code), any substances or parameters at any location.

**H. Enforcement Notification.** In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall 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 (CWA), 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.

- I. **Duty to Comply.** The Applicant must comply with all conditions and requirements of this Certification. Any Certification noncompliance constitutes a violation of the Water Code and is grounds for enforcement action or Certification termination, revocation and reissuance or modification.
- J. **Duty to Provide Information.** The Applicant shall furnish to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Certification or to determine compliance with this Certification.
- K. **Property Rights.** This Certification does not convey any property rights of any sort, or any exclusive privilege.

### III. CONSTRUCTION BEST MANAGEMENT PRACTICES

- A. **Approvals to Commence Construction.** The Applicant shall not commence Project construction until all necessary federal, state, and local approvals are obtained.
- B. **Personnel Education.** Prior to the start of the Project, and annually thereafter, the Applicant must educate all personnel on the requirements in this Certification, pollution prevention measures, spill response measures, and Best Management Practices (BMPs) implementation and maintenance measures.
- C. **Spill Containment Materials.** The Applicant 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. **General Construction Storm Water Permit.** Prior to commencement of Project ground breaking or disturbance activities, the Applicant must, as applicable, obtain coverage under, and comply with, the requirements of State Water Resources Control Board Water Quality Order No. 2009-0009-DWQ, the *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity* (General Construction Storm Water Permit), and any reissuance. If Project construction activities do not require coverage under the General Construction Storm Water Permit, the Applicant must develop and implement a runoff management plan (or equivalent construction BMP plan) to prevent the discharge of sediment and other pollutants during construction activities.

- E. **Waste Management.** The Applicant must properly manage, store, treat, and dispose of wastes in accordance with applicable federal, state, and local laws and regulations. Waste management shall be implemented to avoid or minimize exposure of wastes to precipitation or storm water runoff. The storage, handling, treatment, or disposal of waste shall not create conditions of pollution, contamination, or nuisance, as defined in Water Code section 13050. Upon Project completion, all Project generated debris, building materials, excess material, waste, and trash shall be removed from the Project site(s) for disposal at an authorized landfill or other disposal site in compliance with federal, state and local laws and regulations.
- F. **Waste Management.** Except for a discharge which is permitted under this Certification, the dumping, deposition, or discharge of trash, rubbish, unset cement or asphalt, concrete, grout, damaged concrete or asphalt, concrete or asphalt spoils, wash water, organic or earthen material, steel, sawdust or other construction debris waste directly into waters of the United States and or State, or adjacent to such waters, in any manner which may permit it being transported into the waters, is prohibited.
- G. **Downstream Erosion.** Discharges of concentrated flow during construction or after Project completion must not cause downstream erosion or damage to properties or stream habitat.
- H. **Construction Equipment.** All equipment must be washed prior to transport to the Project site and must be free of sediment, debris, and foreign matter. All equipment used in direct contact with surface waters shall be steam cleaned prior to use. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (e.g., motors, pumps, generator, etc.) shall be positioned over drip pans or other types of containment.
- I. **Process Water.** 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 water runoff flows. Pollutants discharged to areas within a stream diversion must be removed at the end of each work day or sooner if rain is predicted.
- J. **Surface Water Diversion.** All surface waters, including ponded waters, must be diverted away from areas of active grading, construction, excavation, vegetation removal, and/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 the receiving water quality objectives. 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.

- K. Re-vegetation and Stabilization.** All areas that have 14 or more days of inactivity must be stabilized within 14 days of the last activity. The Applicant is responsible for implementing and maintaining BMPs to prevent erosion of the rough graded areas. After completion of grading, all areas must be re-vegetated with native species appropriate for the area. The re-vegetation palette must not contain any plants listed on the California Invasive Plant Council Invasive Plant Inventory, which can be accessed at <http://www.cal-ipc.org/ip/inventory/weedlist.php>.
- L. Hazardous Materials.** Except as authorized by this Certification, substances hazardous to aquatic life including, but not limited to, petroleum products, unused cement/concrete, asphalt, and coating materials, must be prevented from contaminating the soil and/or entering waters of the United States and/or State. BMPs must be implemented to prevent such discharges during each Project activity involving hazardous materials.
- M. Vegetation Removal.** Removal of vegetation must occur by hand, mechanically, or through application of United States Environmental Protection Agency (USEPA) approved herbicides deployed using applicable BMPs to minimize adverse effects to beneficial uses of waters of the United States and/or State. Discharges related to the application of aquatic pesticides within waters of the United States must be in compliance with State Water Resources Control Board Water Quality Order No. 2004-0009-DWQ, the *Statewide General National Pollution Discharge Elimination System Permit for the Discharge of Aquatic Weed Control in Waters of the United States*, and any subsequent reissuance as applicable.
- N. Limits of Disturbance.** The Applicant shall clearly define the limits of Project disturbance to waters of the United States and/or State by using highly visible markers, such as flag markers, construction fencing, or silt barriers, prior to commencement of Project construction activities within those areas.
- O. On-site Qualified Biologist.** The Applicant shall designate an on-site qualified biologist to monitor Project construction activities within or adjacent to waters of the United States and/or State to ensure compliance with the Certification requirements. The biologist shall be given the authority to stop all work on-site if a violation of this Certification occurs or has the potential to occur. Records and field notes of the biologist's activities shall be kept on-site and made available for review upon request by the San Diego Water Board.

#### IV. POST-CONSTRUCTION BEST MANAGEMENT PRACTICES

- A. Post-Construction Discharges.** The Applicant shall not allow post-construction discharges from the Project site to cause on-site or off-site erosion or damage to properties or stream habitats.

- B. Storm Drain Inlets.** All storm drain inlet structures within the Project boundaries must be stamped and/or stenciled (or equivalent) with appropriate language prohibiting non-storm water discharges.
- C. Post-Construction BMP Design.** The Project must be designed to comply with the most current *Model Water Quality Management Plan (Model WQMP) for South Orange County and South Orange County Hydromodification Plan (HMP)*. Post-construction BMPs, including those described in the *Conceptual Water Quality Management Plan La Pata Avenue Gap Closure (WQMP)*, dated May 15, 2012, must treat 100 percent of the added impervious surface and must be sized to comply with the following numeric sizing criteria:
1. Volume-based BMPs must be designed to mitigate (infiltrate, filter, or treat) either:
    - a. The volume of runoff produced from a 24-hour 85<sup>th</sup> percentile storm event, as determined from the local historical rainfall record; or
    - b. The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85<sup>th</sup> percentile 24-hour runoff event.
  2. Flow-based BMPs must be designed to mitigate (infiltrate, filter, or treat) either:
    - a. The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour; or
    - b. The maximum flow rate of runoff produced by the 85<sup>th</sup> percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or
    - c. The maximum flow rate of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85<sup>th</sup> percentile hourly rainfall intensity multiplied by a factor of two.
- D. Post-Construction BMP Implementation.** All post-construction BMPs must be constructed, functional and implemented prior to completion of Project construction, occupancy, and/or planned use, and maintained in perpetuity. The post construction BMPs must include those described in the WQMP, incorporated by reference in this Certification as if set forth herein, or any subsequent version of the WQMP approved by the County of Orange.

- E. Post-Construction BMP Maintenance.** The post construction BMPs must be designed, constructed, and maintained in accordance with the most recent California Storm Water Quality Association (CASQA)<sup>1</sup> guidance. The Applicant shall:
1. No less than two times per year, assess the performance of the BMPs to ensure protection of the receiving waters and identify any necessary corrective measures;
  2. Perform inspections of BMPs, at the beginning of the wet season no later than October 1 and end of the wet season, no later than April 1, for standing water, slope stability, sediment accumulation, trash and debris, and presence of burrows;
  3. Regularly perform preventative maintenance of BMPs, including removal of accumulated trash and debris as needed to ensure proper functioning of the BMP;
  4. Identify and promptly repair damage to BMPs; and
  5. Maintain a log documenting all BMP inspections and maintenance activities. The log shall be made available to the San Diego Water Board upon request.
- F. Bridge, Crossing, and Culvert Design.** Bridges, culverts, dip crossings, or other stream crossing structures shall be designed and installed so they will not cause scouring of the stream bed and/or erosion of the banks. Storm drain lines/culverts and other stream crossing structures shall be designed and maintained to accommodate at least a 100-year, 24-hour storm event, including associated bedload and debris, with a similar average velocity as upstream and downstream sections. Bottoms of temporary culverts shall be placed at stream channel grade and bottoms of permanent culverts shall be open bottom or embedded and backfilled below the grade of the stream greater than or equal to a depth of 1 foot.

## V. PROJECT IMPACTS AND COMPENSATORY MITIGATION

- A. Project Impact Avoidance and Minimization.** The Project must avoid and minimize adverse impacts to the waters of the United States and/or State to the maximum extent practicable.
- B. Project Impacts and Compensatory Mitigation.** Unavoidable Project impacts to San Juan Creek; 8 unnamed tributaries to Prima Deshecha Cañada and Prima Deshecha Cañada itself; and 6 unnamed ephemeral tributaries to Segunda Deshecha Cañada within the San Juan Watershed must not exceed the type and magnitude of impacts described in the table below. At a minimum, compensatory mitigation amounts required to offset unavoidable Project impacts to waters of the United States and/or State must be achieved as described in the table below:

<sup>1</sup> California Storm Water Quality Association (*California Storm Water BMP Handbook, New Development and Redevelopment 2003*), available on-line at: <http://www.cabmphandbooks.org/> [Accessed on January 15, 2012]

	Impacts (acres)	Impacts (linear ft.)	Mitigation for Impacts (acres)	Mitigation for Impacts (linear ft.)	Mitigation Ratio (area mitigated :area impacted)
<b>Permanent Impacts</b>					
Streambed	1.48	13,258	4.69 Establishment/Re- establishment <sup>1</sup>  9.38 Enhancement <sup>2</sup>	4,400 Trabuco <sup>1</sup>  8,666 Trabuco <sup>2</sup>  7,350 San Juan Creek <sup>2</sup>	Establishment/Re- establishment 3.17:1  Enhancement 6.34:1
Wetland	0.04		0.13 Establishment <sup>3</sup>		3.25:1
<b>Temporary Impacts<sup>4</sup></b>					
Streambed and Riparian	0.60	4,425	0.60	4,425	1:1
Wetland	0.02	130	0.02	130	1:1

1. Riparian establishment/re-establishment on-site along the La Pata Avenue Extension and off-site within Trabuco Creek in O'Neill Regional Park. The off-site mitigation area is located approximately 0.5 mile north of Oso Parkway and 0.5 mile west of Antonio Parkway in the City of Mission Viejo.
2. Riparian enhancement off-site within Trabuco Creek and San Juan Creek.
3. Wetland establishment at west side of the proposed Project, approximately 1.1 miles north of Calle Saluda.
4. Must restore all areas of temporary impacts to pre-project contours and revegetate with native species, except for replacement channels in the area identified as the "borrow area" on the project plans. An additional 2:1 ratio of off-site enhancement/restoration mitigation (in addition to the on-site 1:1 ratio) for the borrow area drainages must be implemented along with the planned off-site mitigation for permanent impacts.

**C. Compensatory Mitigation Plan Implementation.** The Applicant must fully and completely implement the *Habitat Mitigation and Monitoring Plan for the La Pata Avenue Extension Project* (Mitigation Plan), dated June 2013; any deviations from, or revisions to, the Mitigation Plan must be pre-approved by the San Diego Water Board. San Diego Water Board acceptance of the final Mitigation Plan applies only to the Project described in this Certification and must not be construed as approval for other current or future projects that are planning to use additional acreage at the site for mitigation. Compensatory mitigation for permanent discharges of fill to 1.52 acres of waters of the United States and/or State shall be achieved as follows:

1. A minimum of 4.69 acres of wetland and riparian habitats must be established/re-established on-site along the La Pata Avenue Extension and off-site within Trabuco

Creek in O'Neill Regional Park. Arundo removal efforts within the re-established areas will require mechanical removal of the arundo root mass; and

2. A minimum of 9.38 acres of wetland and riparian habitats must be enhanced (treatment and removal of arundo) off-site within Trabuco Creek and San Juan Creek. Arundo removal efforts within the enhancement areas may require removal of the arundo root mass, as necessary, to re-establish native vegetation; and
  3. A minimum of 0.13 acre on-site wetland mitigation basin area must be established.
  4. A minimum of 20,416 linear feet of streambed must be established, re-established, and enhanced at the off-site mitigation area in Trabuco Creek and in San Juan Creek.
- D. **Performance Standards Compliance.** Compensatory mitigation required under this Certification shall be considered achieved once it has accomplished its objectives and met the ecological success performance standards contained in the Mitigation Plan.
- E. **Compensatory Mitigation Site Design.** Compensatory mitigation site(s) shall be designed, to the maximum extent practicable, to be self-sustaining once performance standards have been achieved. This includes minimization of active engineering features (e.g., pumps) and appropriate siting to ensure that natural hydrology and landscape context support long-term sustainability in conformance with the following conditions:
1. Most of the channels through the mitigation sites shall be characterized by equilibrium conditions, with no evidence of severe aggradation or degradation;
  2. As viewed along cross-sections, the channel and buffer area(s) shall have a variety of slopes, or elevations, that are characterized by different moisture gradients. Each sub-slope shall contain physical patch types or features that contribute to irregularity in height, edges, or surface and to complex topography overall; and
  3. The mitigation sites shall have a well-developed plant community characterized by a high degree of horizontal and vertical interspersions among plant zones and layers.
- F. **Temporary Project Impact Areas.** The Applicant must restore Drainages C-4, C-6, C-7, and C-8 within the borrow area (as identified in the jurisdictional delineation for the Project) within five years of commencement of Project ground breaking or disturbance activities. The Applicant must restore all other areas of temporary impacts within 18 months of initiation of grading at each stream crossing. Temporary impact areas must be re-contoured and replanted on-site with appropriate native vegetation at a 1:1 ratio. Re-contouring and replanting of the drainages in the borrow area will not be completed until near the end of the entire multi-year construction period. In recognition of this planned activity, an additional 2:1 ratio of off-site enhancement/restoration mitigation (in

addition to the on-site 1:1 ratio) for the borrow area drainages must be implemented along with the planned off-site mitigation for permanent impacts.

**G. Long Term Management and Maintenance.** The compensatory mitigation site(s), must be managed, protected, and maintained, in perpetuity, in conformance with the final ecological success performance standards identified in the Mitigation Plan and the long-term adaptive management requirements identified in the provisions of the Special Area Management Plan (SAMP), Southern Sub-region Habitat Conservation Plan (HCP) and the Master Streambed Alteration Agreement. The aquatic habitats, riparian areas, buffers, and uplands that comprise the mitigation site(s) must be protected in perpetuity from land-use and maintenance activities that may threaten water quality or beneficial uses within the mitigation area(s) in a manner consistent with the following requirements:

1. Any maintenance activities on the mitigation site(s) that do not contribute to the success of the mitigation site(s) and enhancement of beneficial uses and ecological functions and services are prohibited;
2. Maintenance activities must be 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 compensatory mitigation project;
3. The Mitigation site(s) 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 5 percent of the mitigation site(s); and
4. If at any time a catastrophic natural event (e.g., fire, flood) causes damage to the mitigation site(s) or there are other deficiencies in the compensatory mitigation project, the Applicant must take prompt and appropriate action to repair the damage including replanting the affected area(s) and addressing any other deficiencies. The San Diego Water Board may require additional monitoring by the Applicant to assess how the compensatory mitigation site(s) or project site is responding to a catastrophic natural event.

**B. Timing of Mitigation Site(s) Construction.** The construction of proposed mitigation must be concurrent with project grading and completed no later than 18 months following the initial discharge of dredge or fill material into waters of the United States and/ or State. 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.

**C. Mitigation Area Easement Recording.** Within 60 days from the start of construction, the Applicant must provide the San Diego Water 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 Applicant must submit proof of the completed conservation easement protecting 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 State 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 sites. 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.

## VI. MONITORING AND REPORTING REQUIREMENTS

- A. **Representative Monitoring.** Samples and measurements taken for the purpose of monitoring under this Certification shall be representative of the monitored activity.
- B. **Monitoring Reports.** Monitoring results shall be reported to the San Diego Water Board at the intervals specified in section VI of this Certification.
- C. **Monitoring and Reporting Revisions.** The San Diego Water Board may make revisions to the monitoring program at any time during the term of this Certification and may reduce or increase the number of parameters to be monitored, locations monitored, the frequency of monitoring, or the number and size of samples collected.
- D. **Records of Monitoring Information.** Records of monitoring information shall include:
  - 1. The date, exact place, and time of sampling or measurements;
  - 2. The individual(s) who performed the sampling or measurements;
  - 3. The date(s) analyses were performed;
  - 4. The individual(s) who performed the analyses;
  - 5. The analytical techniques or methods used; and
  - 6. The results of such analyses.

- E. California Rapid Assessment Method.** California Rapid Assessment Method (CRAM)<sup>2</sup> monitoring must be performed to assess the current and potential ecological conditions (ecological integrity) of the impact site and proposed compensatory mitigation site(s). These conditions reflect the overall level of ecological function of an aquatic resource. Prior to initiating Project construction, the Applicant shall develop a monitoring plan to implement the California Rapid Assessment Method (CRAM) at the Project impact site(s) and compensatory mitigation site(s). The Applicant must conduct a quantitative function-based assessment of the health of streambed habitat to establish pre-project baseline conditions, set CRAM success criteria, and assess the mitigation site(s) progress towards meeting the success criteria. CRAM monitoring must be conducted prior to the commencement of construction authorized under this Certification and at years 3 and 5 following construction completion. The CRAM assessment results shall be reported with the applicable **Annual Project Progress Report**. An evaluation, interpretation, and tabulation of all CRAM assessment data shall be conducted and the findings submitted with the final Annual Project Progress Report.
- F. Benthic Macroinvertebrate Community Analysis.** Bioassessment monitoring must be performed at the San Juan and Trabuco creek mitigation sites using the professional level non-point source protocol of the California Stream Bioassessment procedure<sup>3</sup>, or equivalent, which uses measurement of the receiving water benthic macroinvertebrate (BMI) community and its physical/habitat structure to assess overall effects of the Project on the biological integrity of receiving waters. At a minimum, bioassessment monitoring must be performed at three sites (assessment stations) in San Juan and Trabuco creeks (as flow permits) before Project initiation, and then in years three and five following start of Project construction, during the established "index period" for the San Juan watershed. The first assessment station is the reference station, which must be located upstream of the mitigation site(s) in a reference area; the second assessment station must be located within the mitigation site(s); and the third assessment station must be located downstream of the mitigation site(s). The reference station upstream of the mitigation site(s) must be located and sampled concurrently with the second and third assessment stations. An evaluation, interpretation and tabulation of the Benthic Macroinvertebrate Community Analysis must be submitted prior to **March 1** with the respective Annual Project Monitoring Report.
- G. Post-Construction BMP Effectiveness Monitoring Plan.** The Applicant shall prepare and submit a BMP Effectiveness Monitoring Plan (BMP Monitoring Plan) to assess the ability of selected storm water structural treatment BMPs to reduce pollutant concentrations and loadings, and prevent exceedances of receiving water quality

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<sup>2</sup> The most recent versions of the California Rapid Assessment Method (CRAM) for Wetlands and additional information regarding CRAM can be accessed at <http://www.cramwetlands.org/>

<sup>3</sup> Copies of the California Stream Bioassessment Procedure can be obtained at [http://www.waterboards.ca.gov/water\\_issues/programs/swamp/docs/phab\\_sopr6.pdf](http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/phab_sopr6.pdf). Additional information on Stream bioassessment may be obtained at [http://www.waterboards.ca.gov/rwqcb9/water\\_issues/programs/bioassessment/index.shtml](http://www.waterboards.ca.gov/rwqcb9/water_issues/programs/bioassessment/index.shtml)

standards. A BMP Monitoring Plan, in conformance with the following criteria, shall be submitted prior to completion of Project construction, but no later than **December 31, 2014**.

1. **Quality Assurance Project Plan.** The BMP Monitoring Plan shall include a Quality Assurance Project Plan (QAPP) describing the monitoring objectives and organization, functional activities, and quality assurance/quality control protocols. The QAPP shall identify appropriate reporting limits for each monitored constituent and provide that analyses will be performed in a laboratory certified to perform such analyses by the California Department of Public Health or a laboratory approved by the San Diego Water Board.
2. **Sample Stations.** The BMP Monitoring Plan shall provide for water quality and flow monitoring at inflow and outflow stations of at least three storm water structural treatment BMPs to determine concentration and mass based pollutant removal efficiencies for each monitored constituent. The Plan shall also provide for upstream and downstream sample stations in the receiving water that are spatially representative of water quality conditions to evaluate the receiving water quality effects of each sampled BMP effluent which may be discharged.
3. **Sample Collection.** The BMP Monitoring Plan shall provide for BMP and receiving water monitoring to be performed in the wet season during the "seasonal first-flush" (first storm event of the wet season) and one other subsequent storm event. The wet season is from October 1 through April 30. A qualifying storm event is considered rainfall precipitation of 0.1 inches and greater. If the first storm of the wet season cannot reasonably be monitored due to safety or mobilization impracticality considerations, then the next subsequent qualifying storm event shall be sampled. BMP inflow and outflow samples and receiving water samples shall be collected during the same qualifying storm event.
4. **Sample Type.** The BMP Monitoring Plan shall provide that storm events will be sampled using flow-weighted composite sampling techniques unless otherwise specified below. For storm events lasting less than 24 hours, samples shall be collected for at least seventy-five percent (75%) of the storm event hydrograph. For storm events lasting longer than 24 hours, samples shall be collected for at least seventy-five percent 75% of the hydrograph of the first 24 hours of the storm. Ongoing continuous flow monitoring is required for each of the sampled storm events as necessary to properly conduct the flow-weighted composite sampling. Precipitation data shall be collected from the nearest rain gauge reporting at least hourly rainfall amounts.
5. **Test Procedures.** The BMP Monitoring Plan shall provide that monitoring is conducted according to United States Environmental Protection Agency (USEPA) test procedures approved at 40 CFR Part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act* as amended,

unless other test procedures are specified by the San Diego Water Board.

6. **Monitoring Duration.** The BMP Monitoring Plan shall provide for wet season BMP effectiveness monitoring for a minimum of five years following completion of Project construction. The Applicant may discontinue this monitoring after the initial five years of monitoring unless directed in writing by the San Diego Water Board to continue the monitoring.
7. **Monitoring Parameters.** The BMP Monitoring Plan shall identify the constituents to be monitored and the corresponding sample type. All BMP inflow, BMP outflow, and receiving water samples shall at a minimum be tested for the pollutants listed in the table below:

Pollutant	Group	Reporting Units <sup>1</sup>	Sample Type	Sample Frequency
Total Suspended Solids	Conventional	mg/L	Composite	Twice per wet season <sup>2</sup>
Settleable Solids	Conventional	ml/L	Grab	Twice per wet season <sup>2</sup>
Turbidity	Conventional	NTU	Grab	Twice per wet season <sup>2</sup>
pH	Conventional	units	Grab	Twice per wet season <sup>2</sup>
Phosphorus	Conventional	mg/L	Composite	Twice per wet season <sup>2</sup>
Nitrogen	Conventional	mg/L	Composite	Twice per wet season <sup>2</sup>
Arsenic	Metals (Total and Dissolved)	µg/L	Composite	Twice per wet season <sup>2</sup>
Cadmium	Metals (Total and Dissolved)	µg/L	Composite	Twice per wet season <sup>2</sup>
Chromium	Metals (Total and Dissolved)	µg/L	Composite	Twice per wet season <sup>2</sup>
Copper	Metals (Total and Dissolved)	µg/L	Composite	Twice per wet season <sup>2</sup>
Iron	Metals (Total and Dissolved)	µg/L	Composite	Twice per wet season <sup>2</sup>
Lead	Metals (Total and Dissolved)	µg/L	Composite	Twice per wet season <sup>2</sup>
Mercury	Metals (Total and Dissolved)	µg/L	Composite	Twice per wet season <sup>2</sup>
Nickel	Metals (Total and Dissolved)	µg/L	Composite	Twice per wet season <sup>2</sup>
Selenium	Metals (Total and Dissolved)	µg/L	Composite	Twice per wet season <sup>2</sup>
Thallium	Metals (Total and Dissolved)	µg/L	Composite	Twice per wet season <sup>2</sup>
Zinc	Metals (Total and Dissolved)	µg/L	Composite	Twice per wet season <sup>2</sup>

Notes:

1. mg/L = milligrams per liter, ml/L = milliliter per liter µg/L = micrograms per liter, NTU = nephelometric turbidity units
2. The wet season is from October 1 through April 30.

8. **Annual Reports.** The BMP Monitoring Plan shall include a schedule for completion and submittal of Annual Post-Construction BMP Effectiveness Monitoring Reports that meets the requirements described in section VI.K of this Certification.
- G. **BMP Monitoring Plan Implementation.** The Applicant shall implement the BMP Monitoring Plan by **July 31, 2015**, unless otherwise directed in writing by the San Diego Water Board. The Applicant shall modify the BMP Monitoring Plan as requested by the San Diego Water Board.
- H. **Annual Project Progress Reports.** The Applicant must submit annual Project progress reports describing status of BMP implementation and compliance with all requirements of this Certification to the San Diego Water Board prior to **March 1** of each year following the issuance of this Certification until the Project has reached completion. The report must include the following information:
1. The names, qualifications, and affiliations of the persons contributing to the report;
  2. The status, progress, and anticipated schedule for completion of Project construction activities including the installation and operational status of best management practices and other project features for erosion control and storm water quality treatment;
  3. A description of Project construction delays encountered or anticipated that may affect the schedule for construction completion;
  4. A description of each incident of noncompliance during the annual monitoring period 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 the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance;
  5. The results of the California Rapid Assessment Method (CRAM) monitoring required under section VI.E of this Certification; and
- I. **Final Project Completion Report.** The Applicant must submit a Final Project Completion Report to the San Diego Water Board **within 30 days of completion of the Project**. The final report must include the following information:
1. Date of construction initiation;
  2. Date of construction completion;
  3. Status of Post Construction BMP installation and operational status;

4. As-built drawings of the Project no bigger than 11"X17";
  5. Photo documentation of implemented post-construction BMPs. 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](http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/StreamPhotoDocSOP.pdf). In addition, photo documentation must include Global Positioning System (GPS) coordinates for each of the photo points referenced; and
  6. An evaluation, interpretation, and tabulation of all California Rapid Assessment Method (CRAM) assessment data collected throughout the term of the Project in accordance with section VI.E of this Certification.
- J. Annual Compensatory Mitigation Monitoring Report.** The Applicant must submit compensatory mitigation monitoring reports, annually, by **March 1** of each year containing sufficient information to demonstrate how the compensatory mitigation project is progressing towards accomplishing its objectives and meeting its performance standards. Mitigation monitoring reports must be submitted annually for a period, of not less than five years, sufficient to demonstrate that the compensatory mitigation project has accomplished its objectives and met ecological success performance standards contained in the Mitigation Plan. Following Project implementation the San Diego Water Board may reduce or waive compensatory mitigation monitoring requirements upon a determination that performance standards have been achieved. Conversely, the San Diego Water Board may extend the monitoring period beyond five years upon a determination that the performance standards have not been met or the compensatory mitigation project is not on track to meet them. The monitoring reports must include, but not be limited to, the following information:
1. Names, qualifications, and affiliations of the persons contributing to the report;
  2. An evaluation, interpretation and tabulation of the parameters being monitored, including the results of the Mitigation Plan Monitoring Program and all quantitative and qualitative data collected in the field;
  3. Monitoring data, interpretations, and conclusions regarding the following information:
    - a. Detritus cover;
    - b. General topographic complexity characteristics at each mitigation site;
    - c. General upstream and downstream habitat and hydrologic connectivity; and
    - d. Source of hydrology to the mitigation areas.
  4. Monitoring data interpretations and conclusions as to how the compensatory mitigation project(s) is progressing towards meeting performance standards and whether the performance standards have been met;

5. A description of the progress toward implementing a plan to manage the compensatory mitigation site(s) after performance standards have been achieved to ensure the long term sustainability of the resource in perpetuity, including a discussion of long term financing mechanisms, the party responsible for long term management, and a timetable for future steps;
  6. Qualitative and quantitative comparisons of current mitigation conditions with pre-construction conditions and previous mitigation monitoring results;
  7. An evaluation of upstream and downstream habitat and hydrologic connectivity;
  8. Stream photo documentation, including all areas of permanent and temporary impact, prior to and after project construction, and mitigation sites, including all 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](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;
  9. A qualitative comparison to adjacent preserved streambed areas;
  10. As-built drawings no bigger than 11"X17" of the compensatory mitigation site(s); and
  11. A survey report documenting boundaries of the compensatory mitigation site(s).
- K. Annual Post-Construction BMP Effectiveness Monitoring Reports.** The Applicant shall prepare and submit BMP monitoring results, required under section VI.F of this Certification, in an **Annual Post-Construction BMP Effectiveness Monitoring Report (BMP Effectiveness Report)** by **June 1** of each year. The BMP Effectiveness Report shall contain all BMP monitoring data collected during the preceding wet season period (October 1 – April 30). The submittal of annual BMP Effectiveness Reports shall continue for five years following Project construction completion. The Applicant may discontinue the submittal of annual BMP Effectiveness Reports after the initial five years of monitoring unless directed in writing by the San Diego Water Board to continue the monitoring and submittal of annual reports. The BMP Effectiveness Report shall contain the following information:
1. **Monitoring Data Information.** Each Report shall contain the information described in section VI.D of this Certification. The Report shall describe how the data collected compared with data quality objectives described in the QAPP and any corrective actions taken. The locations, type, and number of samples shall be identified and shown on a site map. For any monitoring period in which no discharge occurred, the monitoring report must still be submitted and include a statement certifying that no

discharge occurred during the monitoring period.

2. **Monitored Drainage Area.** Each Report shall include a brief summary of each monitored drainage area, including any changes to the drainage area or changes to the monitoring station(s) that could affect hydrology or pollutant loading.
  3. **Storm Event Description.** Each Report shall include general information about the sampled storm event including but not limited to:
    - a. Date of the storm event;
    - b. Duration of the storm event;
    - c. Precipitation data including rainfall distribution throughout the event;
    - d. Flow and hydrograph data including sampled and total runoff time periods and volumes; and
    - e. Any logistical problems associated with sample collection.
  4. **Pollutant Loads and BMP Pollutant Removal Efficiency.** The estimated pollutant loads for each monitored constituent in the inflow and outflow of each monitored BMP shall be calculated and reported in terms of pounds per day. The concentration and mass based BMP pollutant removal efficiency for each monitored constituent shall be calculated and reported.
  5. **Data Analysis and Interpretation.** Each Report shall provide an evaluation, interpretation and tabulation of the monitoring data including interpretations and conclusions regarding the effectiveness of the storm water BMPs monitored and conclusions as to whether applicable water quality standards were attained at each sample station in the receiving waters.
    - i. The Report shall also provide a description of storm water management activities currently taking place or planned within the monitoring stations drainage area that may have affected the monitoring results or potentially affect future monitoring results;
    - ii. After three years of data collection the Report shall contain a trend analysis and a description of any storm water management activities or BMPs the Applicant has identified that can be adjusted to respond to the monitoring data; and
    - iii. The Report shall contain a statement certifying that the receiving water monitoring data and results have been uploaded into the California Environmental Data Exchange Network (CEDEN).
- H. **Reporting Authority.** The submittal of information under this Certification, or in response to a suspected violation of any condition of this Certification, is required pursuant to Water Code section 13267 and 13383. Civil liability may be administratively imposed by the San Diego Water Board for failure to submit information pursuant to Water Code sections 13268 or 13383.



- I. **Electronic and Paper Media Documents.** The Applicant must submit all reports and information required under this Certification in both hardcopy (paper) 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. All paper and electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. 12C-056: PIN 783152.
- J. **Document Signatory Requirements.** All applications, reports, or information submitted to the San Diego Water Board must be signed 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.

If such authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the Project, a new authorization satisfying the above requirements must be submitted to the San Diego Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative.

- K. **Document Certification Requirements.** All applications, reports, or information submitted to the San Diego Water Board must be 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."*

- L. **Document Submittal Address.** The Applicant 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. 12C-056: PIN 783152  
2375 Northside Drive, Suite 100  
San Diego, California 92108

## VII. NOTIFICATION REQUIREMENTS

- A. **Twenty Four Hour Non-Compliance Reporting.** The Applicant shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the San Diego Water Board within **24 hours** from the time the Applicant becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Applicant becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of 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 recurrence of the noncompliance. The San Diego Water Board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
- B. **Hazardous Substance Discharge.** Except for a discharge which is in compliance with this Order, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the County of San Diego, Environmental Health Division in accordance with California Health and Safety Code section 5411.5 and the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.17), and immediately notify the State Water Board or the San Diego Water Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of section 13271 of the Water Code unless the Applicant is in violation of a Basin Plan prohibition.
- C. **Oil or Petroleum Product Discharge.** Except for a discharge which is in compliance with this Order, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State,

or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.1). This requirement does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Clean Water Act section 311, or the discharge is in violation of a Basin Plan prohibition.

- D. **Anticipated Noncompliance.** The Applicant shall give advance notice to the San Diego Water Board of any planned changes in the Project or the Compensatory Mitigation project which may result in noncompliance with Certification conditions or requirements.
- E. **Transfers.** This Certification is not transferable in its entirety or in part to any person or organization except after notice to the San Diego Water Board in accordance with the following terms:
1. **Transfer of Property Ownership:** The Applicant must notify the San Diego Water Board of any change in ownership of the Project area. Notification of change in ownership must include, but not be limited to, a statement that the Applicant has provided the purchaser with a copy of the Section 401 Water Quality Certification and that the purchaser understands and accepts the certification requirements and the obligation to implement them or be subject to liability for failure to do so; the seller and purchaser must sign and date the notification and provide such notification to the San Diego Water Board **within 10 days of the transfer of ownership.**
  2. **Transfer of Mitigation Responsibility:** Any notification of transfer of responsibilities to satisfy the mitigation requirements set forth in this Certification must include a signed statement from an authorized representative of the new party (transferee) demonstrating acceptance and understanding of the responsibility to comply with and fully satisfy the mitigation conditions and agreement that failure to comply with the mitigation conditions and associated requirements may subject the transferee to enforcement by the San Diego Water Board under Water Code section 13385, subdivision (a). Notification of transfer of responsibilities meeting the above conditions must be provided to the San Diego Water Board **within 10 days of the transfer date.**
  3. **Transfer of Post-Construction BMP Maintenance Responsibility:** The Applicant assumes responsibility for the inspection and maintenance of all post-construction structural BMPs until such responsibility is legally transferred to another entity. At the time maintenance responsibility for post-construction BMPs is legally transferred the Applicant must submit to the San Diego Water Board a copy of such

documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer specifications. The Applicant must provide such notification to the San Diego Water Board within **10 days** of the transfer of BMP maintenance responsibility.

Upon properly noticed transfers of responsibility, the transferee assumes responsibility for compliance with this Certification and references in this Certification to the Applicant will be interpreted to refer to the transferee as appropriate. Transfer of responsibility does not necessarily relieve the Applicant of this Certification in the event that a transferee fails to comply.

- F. **Discharge Commencement.** The Applicant must notify the San Diego Water Board in writing **at least 5 days prior to** the actual commencement of Project ground breaking or disturbance, dredge, fill, or discharge activities.

### VIII. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

- A. The County of Orange is the lead agency under the California Environmental Quality Act (Public Resources Code section 21000, et seq., (CEQA)), and filed Notice of Determination of their Environmental Impact Report (EIR) titled *La Pata Avenue Gap Closure and Camino Del Rio Extension*, dated May 25, 2011. The County of Orange has determined the Project will have a significant effect on the environment and mitigation measures were made a condition of the Project.
- B. The San Diego Water Board has reviewed the lead agency's Notice of Determination and also finds that the Project as proposed will have a significant effect on the environment and has conditioned mitigation measures accordingly and therefore determines that issuance of this Certification is consistent with the Notice of Determination.
- C. The Applicant shall implement the Mitigation and Monitoring Measures described in the EIR.

### IX. SAN DIEGO WATER BOARD CONTACT PERSON

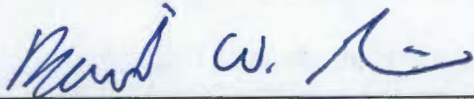
Darren Bradford, Environmental Scientist  
California Regional Water Quality Control Board, San Diego Region  
2375 Northside Drive, Suite 100  
San Diego, California 92108  
Telephone: (619) 521-3356  
Email: [DBradford@waterboards.ca.gov](mailto:DBradford@waterboards.ca.gov)

## X. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **La Pata Avenue Extension Project** (Certification No. 12C-056) 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 to, and all proposed mitigation being completed in strict compliance with, the applicants' Project description and/or the description in this Certification, and (b) compliance with all applicable requirements of the Basin Plan.

I, David W. Gibson, Executive Officer, do hereby certify the forgoing is a full, true, and correct copy of Certification No. 12C-056 issued on November 22, 2013.



\_\_\_\_\_  
DAVID W. GIBSON  
Executive Officer  
San Diego Water Board

22 Nov. 2013  
Date

## ATTACHMENT 1 DEFINITIONS

**Activity** - when used in reference to this Certification means any action, undertaking, or project including, but not limited to, construction, operation, maintenance, repair, modification, and restoration which may result in any discharge to waters of the United States and/or State.

**Buffer** - means an upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

**California Rapid Assessment Method (CRAM)** - is a wetland assessment method intended to provide a rapid, scientifically-defensible, and repeatable assessment methodology to monitor status and trends in the conditions of wetlands for applications throughout the state. It can also be used to assess the performance of compensatory mitigation projects and restoration projects. CRAM provides an assessment of overall ecological condition in terms of four attributes: landscape context and buffer, hydrology, physical structure, and biotic structure. CRAM also includes an assessment of key stressors that may be affecting wetland condition. CRAM also features a "field to PC" data management tool (eCRAM) to ensure consistency and quality of data produced with the method.

**Compensatory Mitigation Project** - means compensatory mitigation implemented by the Applicant as a requirement of this Certification (i.e., applicant-responsible mitigation), or by a mitigation bank, or an in-lieu fee program.

**Discharge of dredged material** – means any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States and/or State.

**Discharge of fill material** – means the addition of fill material into waters of the United States and/or State.

**Dredged material** – means material that is excavated or dredged from waters of the waters of the United States and/or State.

**Ecological Success Performance Standards** – means observable or measurable physical (including hydrological), chemical and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives.

**Enhancement** – means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

**Establishment** – means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist. Creation results in a gain in aquatic resource area.

**Fill material** – means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a water body.

**Isolated wetland** – means a wetland with no surface water connection to other aquatic resources.

**Mitigation Bank** – means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing mitigation for impacts authorized by this Certification.

**Preservation** - means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

**Re-establishment** - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

**Rehabilitation** - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/ historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

**Restoration** - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

**Start of Project Construction** - For the purpose of this Certification, "start of Project construction" means to engage in a program of on-site construction, including site clearing, grading, dredging, landfilling, changing equipment, substituting equipment, or even moving the location of equipment specifically designed for a stationary source in preparation for the fabrication, erection or installation of the building components of the stationary source within waters of the United States and/or State.

**Uplands** - means non-wetland areas that lack any field-based indicators of wetlands or other aquatic conditions. Uplands are generally well-drained and occur above (i.e., up-slope) from nearby aquatic areas. Wetlands can, however, be entirely surrounded by uplands. For example, some natural seeps and constructed stock ponds lack aboveground hydrological connection to other aquatic areas. In the watershed context, uplands comprise the landscape matrix in which aquatic areas form. They are the primary sources of sediment, surface runoff, and associated chemicals that are deposited in aquatic areas or transported through them.

**Water quality objectives and other appropriate requirements of state law** - means the water quality objectives and beneficial uses as specified in the appropriate water quality control plan(s); the applicable provisions of sections 301, 302, 303, 306, and 307 of the Clean Water Act; and any other appropriate requirement of state law.



**ATTACHMENT 2  
DISTRIBUTION LIST**

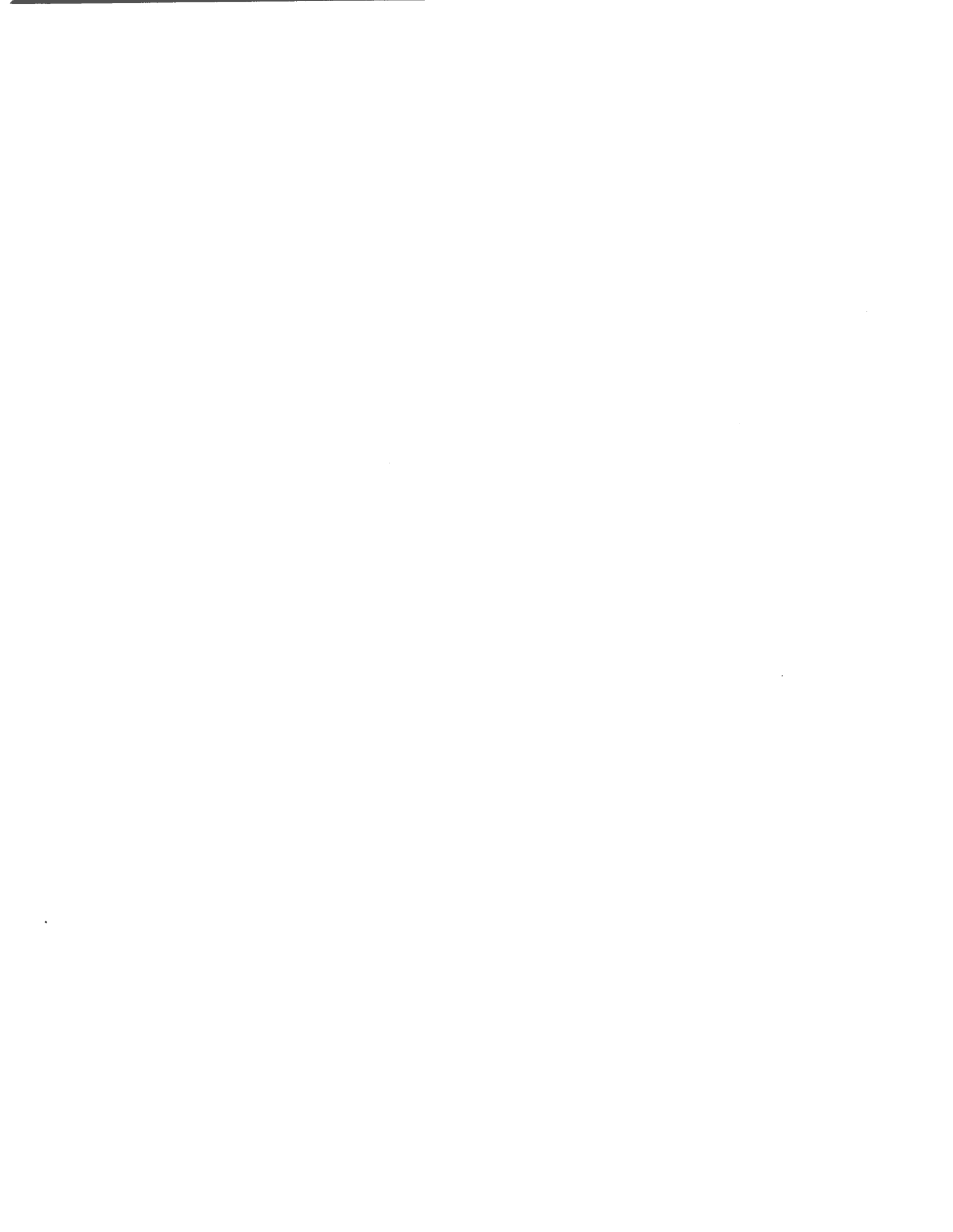
Mr. Sophia Huynh  
U.S. Army Corps of Engineers  
Regulatory Branch  
Sophia.C.Huynh@usace.army.mil

Kevin Hupf  
California Department of Fish and Game  
Kevin.Hupf@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

Blake Selna  
LSA Associates, Inc.  
Blake.Selna@lsa-assoc.com

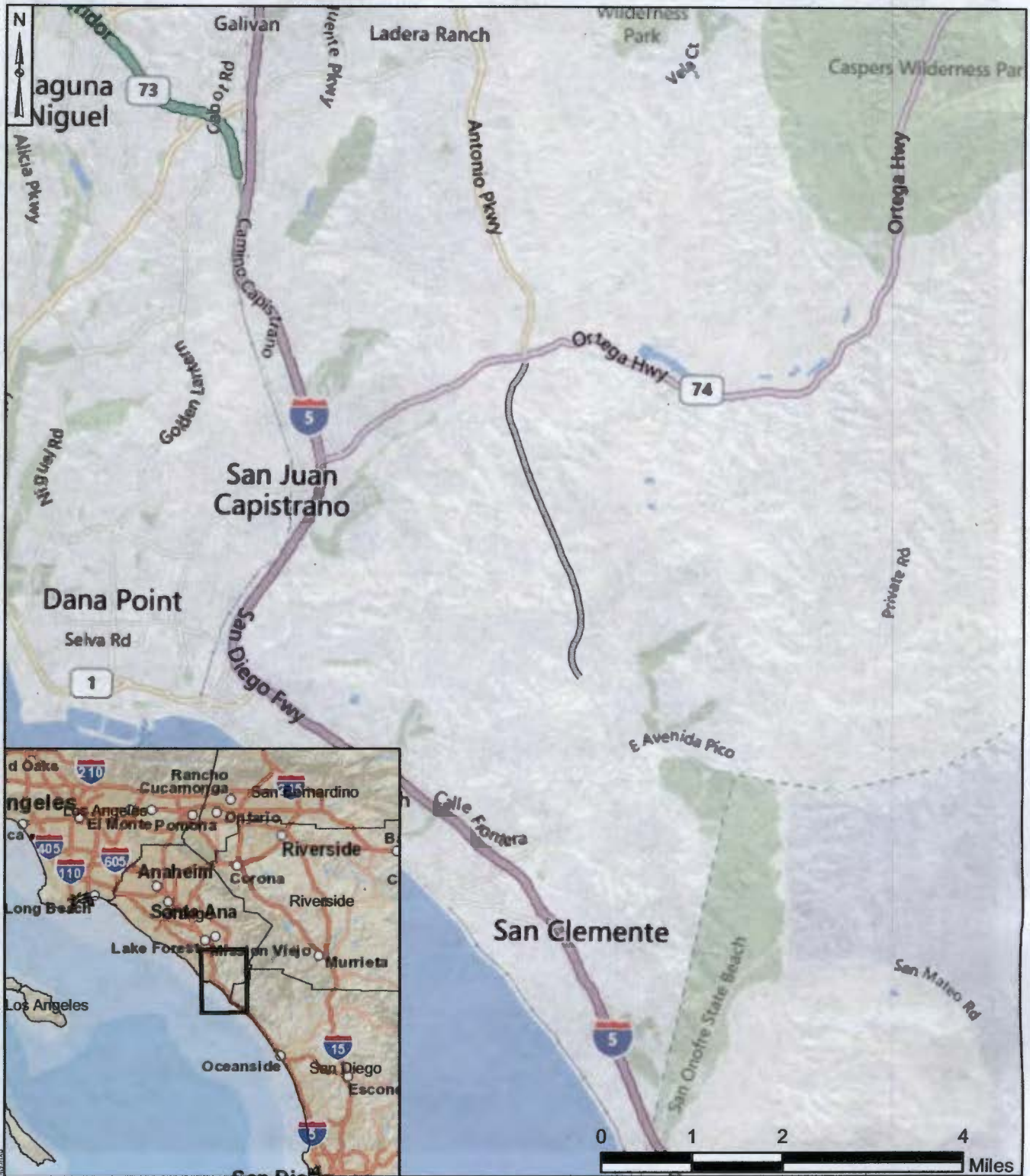


Orange County Public Works  
La Pata Avenue Extension Project  
Certification No. 12C-056

**ATTACHMENT 3  
LOCATION MAPS**

THE UNIVERSITY OF CHICAGO  
LIBRARY

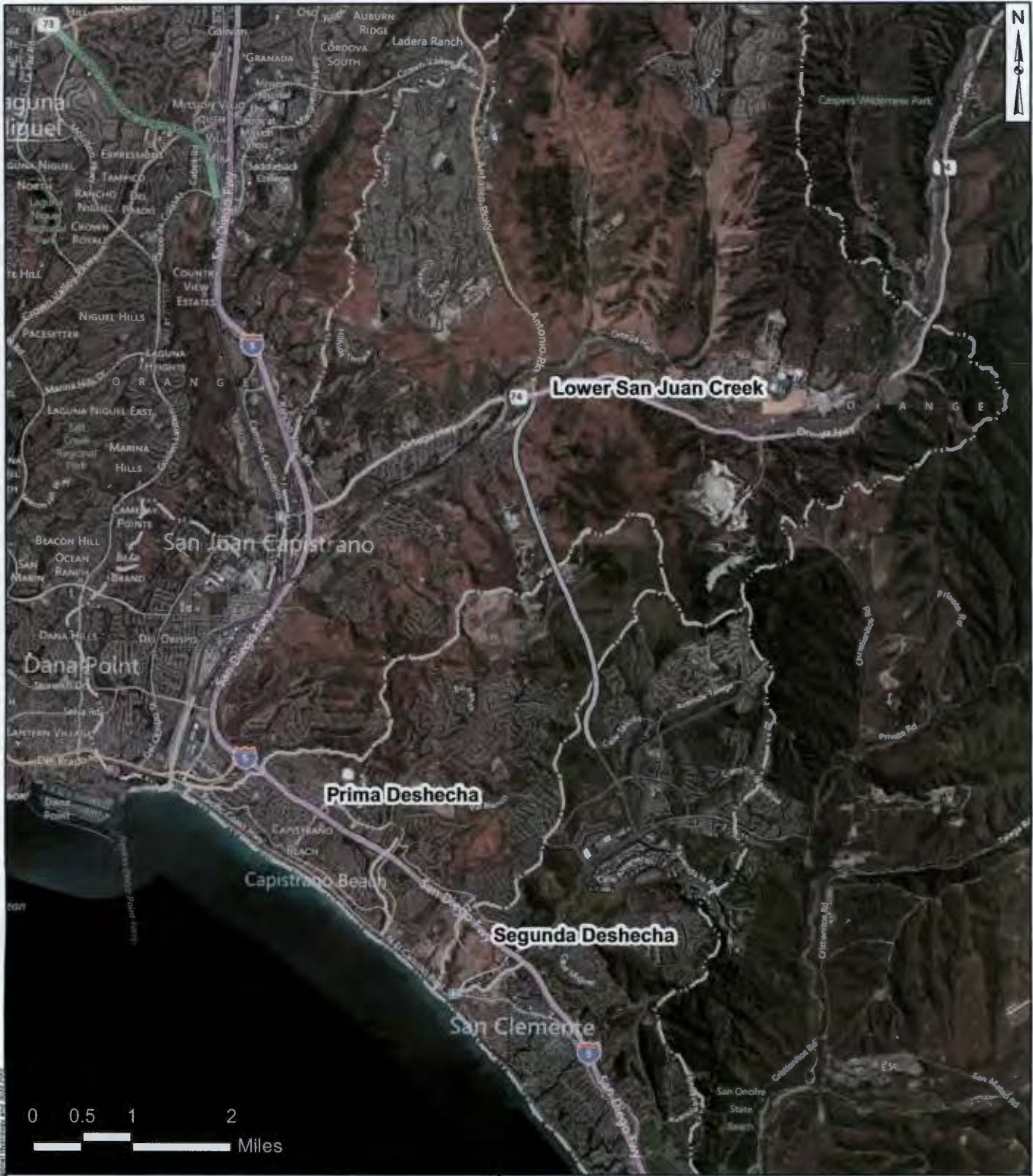
1957



Legend	
	Approximate Project Extents

<b>Project Vicinity</b> La Pata Avenue Gap Closure Conceptual WQMP	
<b>Geosyntec</b> <sup>®</sup> consultants	
Huntington Beach	May 2012
<b>Figure 1</b>	

File Path: P:\GIS\Projects\453115-LaPataAvenueGapClosure\MapFiles\Map\_1\_Visibility.mxd  
 Source: Bing, SCAG



<b>Legend</b>	
	Approximate Project Extents
	Regional Watersheds
	Major Streams
	303(d) listed segments

<b>Regional Hydrology and 303 (d) listed Waterbodies</b> La Pata Avenue Gap Closure Conceptual WQMP	
<b>Geosyntec</b> <sup>®</sup> consultants	
Huntington Beach	May 2012
<b>Figure</b> <b>2</b>	

Source: SDRWQCB, USGS, Bing

Orange County Public Works  
La Pata Avenue Extension Project  
Certification No. 12C-056

**ATTACHMENT 4  
PROJECT SITE PLANS**

THE UNIVERSITY OF CHICAGO  
LIBRARY

ALPHABETICALLY  
BY AUTHOR





FIGURE 2

LEGEND

-  Proposed Roadway
-  Drainage Box with ID
-  Prima Deshecha Landfill Boundary
-  Jurisdictional Drainages



0 600 1200  
FEET

SOURCE: City of San Clemente (2009); City of San Juan Capistrano (2010); Bing/Aerial (4/08); Orange County (2010); RRF (6/11/2010); Holo-Software (1/2012, 4/25/12); GEA (2007)  
I:\C\DH10\KHSUB\_Overview.mxd (4/9/2015)

La Pata Avenue Extension Project

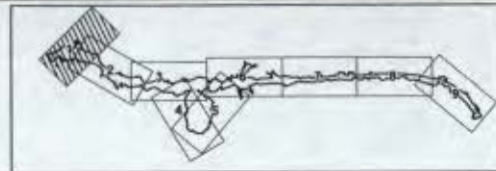
Jurisdictional Drainages

ORA1289945TYL-5932(066)



**LEGEND**

- |                                  |  |  |
|----------------------------------|--|--|
| Proposed Roadway                 | <b>90% Plans</b>                       | Swale                                  |
| Biological Study Area (BSA)      | Temporary Construction Easement Limits | Drainage Segment Outside of Study Area |
| Prima Deshecha Landfill Boundary | Remedial Grading Limits                | <b>Corps Jurisdiction</b>              |
| Soil Pit Locations               | Grading Limits                         | Corps Wetland Waters                   |
| Drainage Box with ID             |  | Corps Nonwetland Waters                |



APPENDIX A  
Sheet 1 of 9

*La Pata Avenue Extension Project*  
Jurisdictional Delineation  
Potential Corps Jurisdiction  
ORA120504-STPL-5955(066)

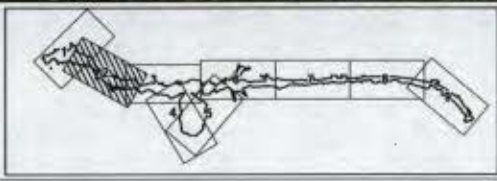
SOURCE: City of San Clemente (2009); City of San Juan Capistrano (2010); Eagle Aerial (4/08); Orange County (2010); RBF (6/11/2010); Hair-Zellers (1/2012, 4/23/12); GLA (2009)  
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- LEGEND**
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|--|----------------------------------|--|--|--|--|
|  | Proposed Roadway                 |  | 90% Plans                              |  | Swale                                  |
|  | Biological Study Area (BSA)      |  | Temporary Construction Easement Limits |  | Drainage Segment Outside of Study Area |
|  | Prima Deshecha Landfill Boundary |  | Remedial Grading Limits                |  | Corps Jurisdiction                     |
|  | Soil Pit Locations               |  | Grading Limits                         |  | Corps Wetland Waters                   |
|  | Drainage Box with ID             |  |  |  | Corps Nonwetland Waters                |



SOURCE: City of San Clemente (2009); City of San Juan Capistrano (2010); EagleAerial (4/08); Orange County (2010); RBF (6/11/2010); Bath-Zellers (1/2012, 4/23/12); GLA (2009)  
 I:\ORG\1101\GIS\JD\_Corps\_Forest.mxd (4/9/2013)



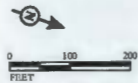
APPENDIX A  
 Sheet 2 of 9

**La Pata Avenue Extension Project**  
**Jurisdictional Delineation**  
**Potential Corps Jurisdiction**  
 ORA120504-STPL-5955(066)

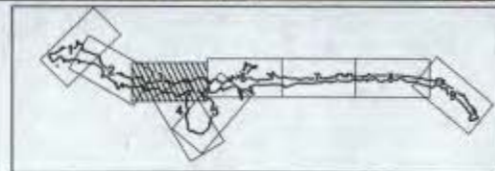


**LEGEND**

- |  |                                  |  |  |  |  |
|--|----------------------------------|--|--|--|--|
|  | Proposed Roadway                 |  | 90% Plans                              |  | Swale                                  |
|  | Biological Study Area (BSA)      |  | Temporary Construction Easement Limits |  | Drainage Segment Outside of Study Area |
|  | Prima Deshecha Landfill Boundary |  | Remedial Grading Limits                |  | Corps Jurisdiction                     |
|  | Soil Pit Locations               |  | Grading Limits                         |  | Corps Wetland Waters                   |
|  | Drainage Box with ID             |  |  |  | Corps Nonwetland Waters                |



SOURCE: City of San Clemente (2009); City of San Juan Capistrano (2010); EagleAerial (4/08); Orange County (2010); RRP (6/1/2010); Hunt-Zellers (1/2012, 4/23/12); GLA (2009); 130RG110101SUD\_Corps\_Permit.mxd (4/9/2013)



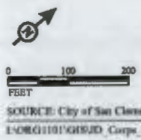
APPENDIX A  
Sheet 3 of 9

**La Pata Avenue Extension Project**  
Jurisdictional Delineation  
Potential Corps Jurisdiction  
ORA120504-STPL-5953(066)

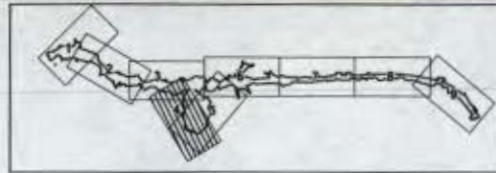


**LEGEND**

- |                                  |  |  |
|----------------------------------|--|--|
| Proposed Roadway                 | <b>90% Plans</b>                       | Swale                                  |
| Biological Study Area (BSA)      | Temporary Construction Easement Limits | Drainage Segment Outside of Study Area |
| Prima Deshecha Landfill Boundary | Remedial Grading Limits                | <b>Corps Jurisdiction</b>              |
| Soil Pit Locations               | Grading Limits                         | Corps Wetland Waters                   |
| Drainage Box with ID             |  | Corps Nonwetland Waters                |



SOURCE: City of San Clemente (2009); City of San Juan Capistrano (2010); EagleAerial (4/08); Orange County (2010); RRF (6/11/2010); Thei-Zollins (1/2012, 4/23/12); GLA (2009)  
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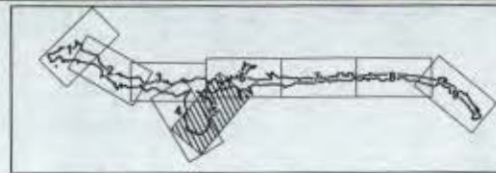




**LEGEND**

- |                                  |   |  |
|----------------------------------|---|--|
| Proposed Roadway                 | 90% Plans<br>Temporary Construction Easement Limits | Swale                                      |
| Biological Study Area (BSA)      | Remedial Grading Limits                             | Drainage Segment Outside of Study Area     |
| Prima Deshecha Landfill Boundary | Grading Limits                                      | Corps Jurisdiction<br>Corps Wetland Waters |
| Soil Pit Locations               |   | Corps Nonwetland Waters                    |
| Drainage Box with ID             |   |  |

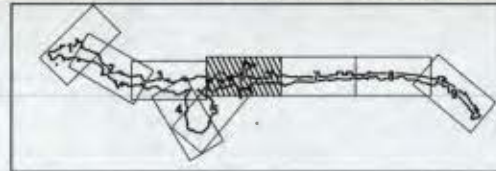
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**LEGEND**

- |                                  |  |  |
|----------------------------------|--|--|
| Proposed Roadway                 | <b>90% Plans</b>                       | Swale                                  |
| Biological Study Area (BSA)      | Temporary Construction Easement Limits | Drainage Segment Outside of Study Area |
| Prima Deshecha Landfill Boundary | Remedial Grading Limits                | <b>Corps Jurisdiction</b>              |
| Soil Pit Locations               | Grading Limits                         | Corps Wetland Waters                   |
| Drainage Box with ID             |  | Corps Nonwetland Waters                |

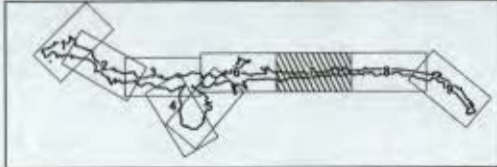
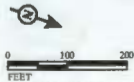


SOURCE: City of San Clemente (2009); City of San Juan Capistrano (2010); EagleAerial (4/08); Orange County (2010); ERF (5/11/2010); Hunt-Zoller (1/2012, 4/23/12); OLA (2009); SOREG1107/GHW/JD, Corps, Permittal (4/9/2013)



**LEGEND**

- |                                  |  |  |
|----------------------------------|--|--|
| Proposed Roadway                 | 90% Plans                              | Swale                                  |
| Biological Study Area (BSA)      | Temporary Construction Easement Limits | Drainage Segment Outside of Study Area |
| Prima Deshecha Landfill Boundary | Remedial Grading Limits                | Corps Jurisdiction                     |
| Soil Pit Locations               | Grading Limits                         | Corps Wetland Waters                   |
| Drainage Box with ID             |  | Corps Nonwetland Waters                |



APPENDIX A  
Sheet 7 of 9

*La Pata Avenue Extension Project*  
Jurisdictional Delineation  
Potential Corps Jurisdiction  
ORA120504-STPL-5955(066)

SOURCE: City of San Clemente (2009); City of San Juan Capistrano (2010); Eagle Aerial (1/98); Orange County (2010); RSP (6/1/2010); H&H-Zellers (1/2012, 4/23/12); GEA (2008)  
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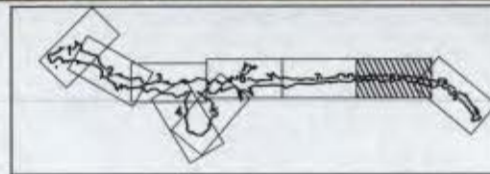


**LEGEND**

- |                                  |  |  |
|----------------------------------|--|--|
| Proposed Roadway                 | 90% Plans                              | Swale                                  |
| Biological Study Area (BSA)      | Temporary Construction Easement Limits | Drainage Segment Outside of Study Area |
| Prima Deahecha Landfill Boundary | Remedial Grading Limits                | Corps Jurisdiction                     |
| Soil Pit Locations               | Grading Limits                         | Corps Wetland Waters                   |
| Drainage Box with ID             |  | Corps Nonwetland Waters                |



SOURCE: City of San Clemente (2009); City of San Juan Capistrano (2010); EagleAerial (4/08); Orange County (2009); RBF (6/11/2010); Holt-Zelars (1/2012, 4/23/12); OLA (2009)  
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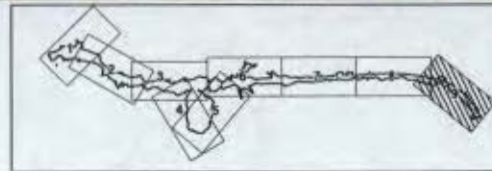
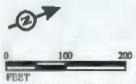
APPENDIX A  
 Sheet 8 of 9

*La Pata Avenue Extension Project*  
**Jurisdictional Delineation**  
**Potential Corps Jurisdiction**  
 ORA120504-STPL- 5955/0661



**LEGEND**

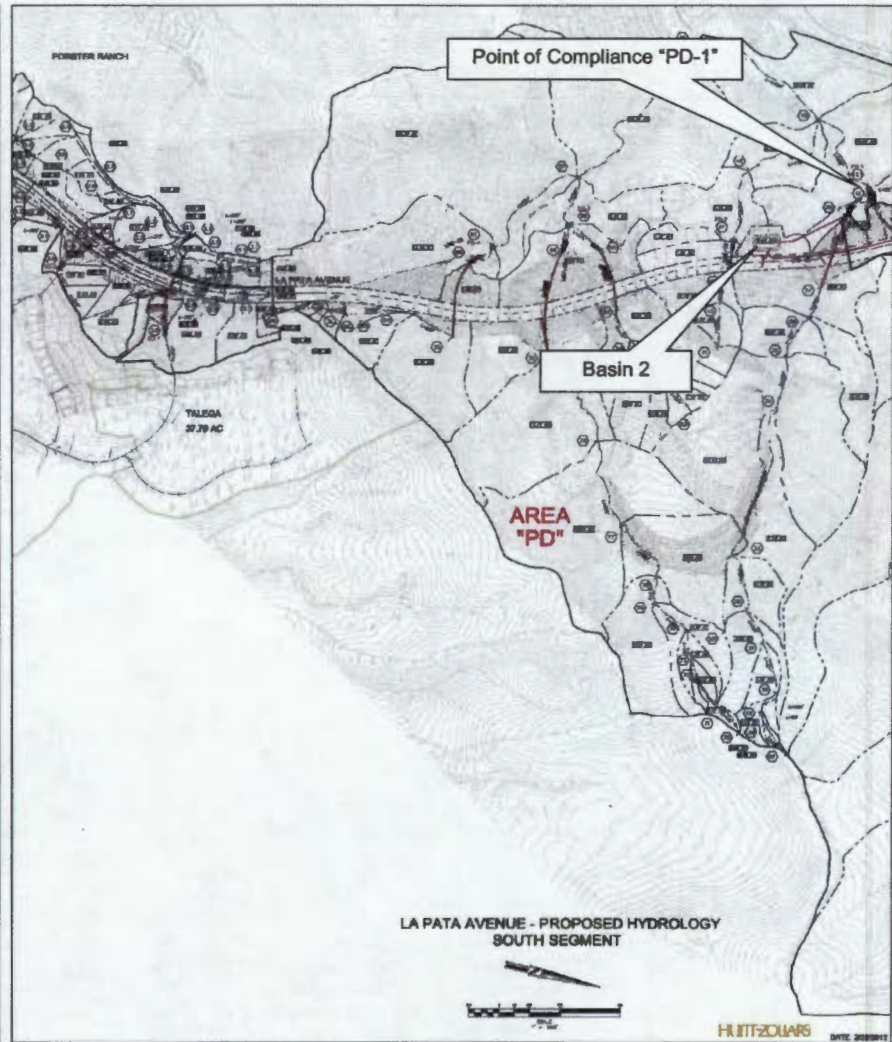
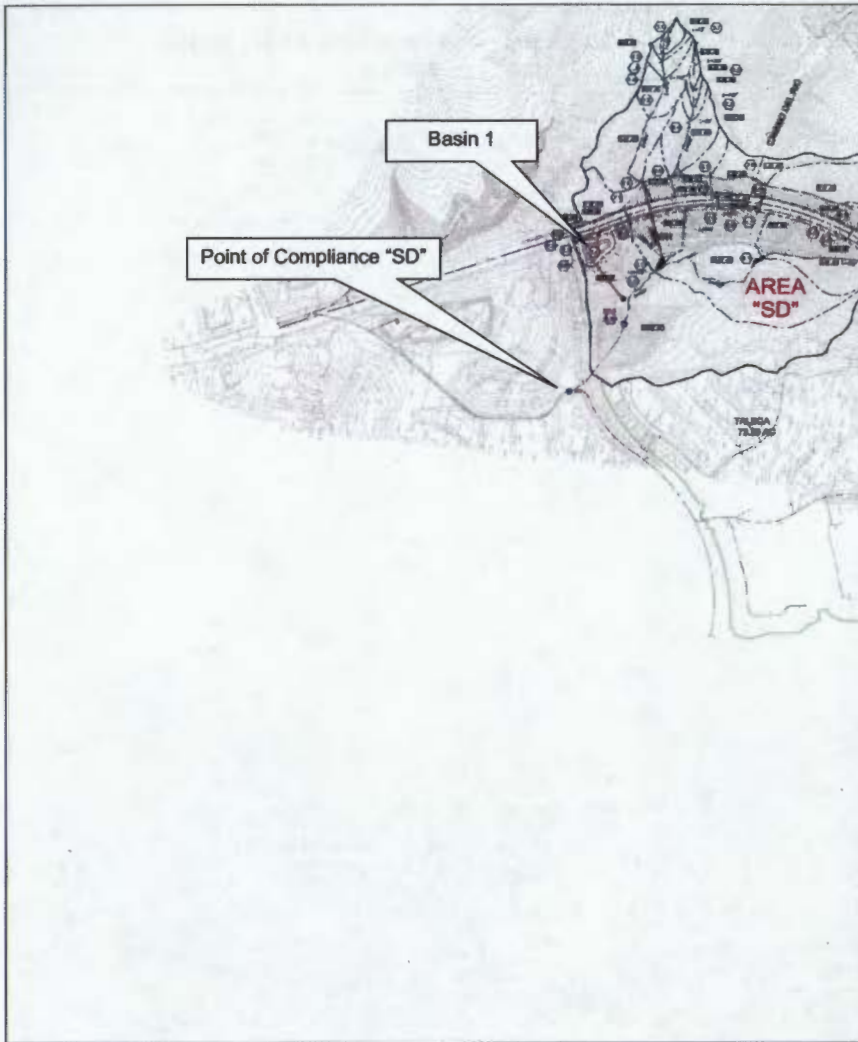
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|----------------------------------|--|--|
| Proposed Roadway                 | 90% Plans                              | Swale                                  |
| Biological Study Area (BSA)      | Temporary Construction Easement Limits | Drainage Segment Outside of Study Area |
| Prima Deshecha Landfill Boundary | Remedial Grading Limits                | Corps Jurisdiction                     |
| Soil Pit Locations               | Grading Limits                         | Corps Wetland Waters                   |
| Drainage Box with ID             |  | Corps Nonwetland Waters                |



APPENDIX A  
Sheet 9 of 9

*La Pata Avenue Extension Project*  
Jurisdictional Delineation  
Potential Corps Jurisdiction  
ORA120504/STPL-5955(066)

SOURCE: City of San Clemente (2009); City of San Juan Capistrano (2010); EagleAerial (4/08); Orange County (2010); RBF 16/11/2010; thorn-Zellman (1/2012, 4/23/12); GEA (2009)  
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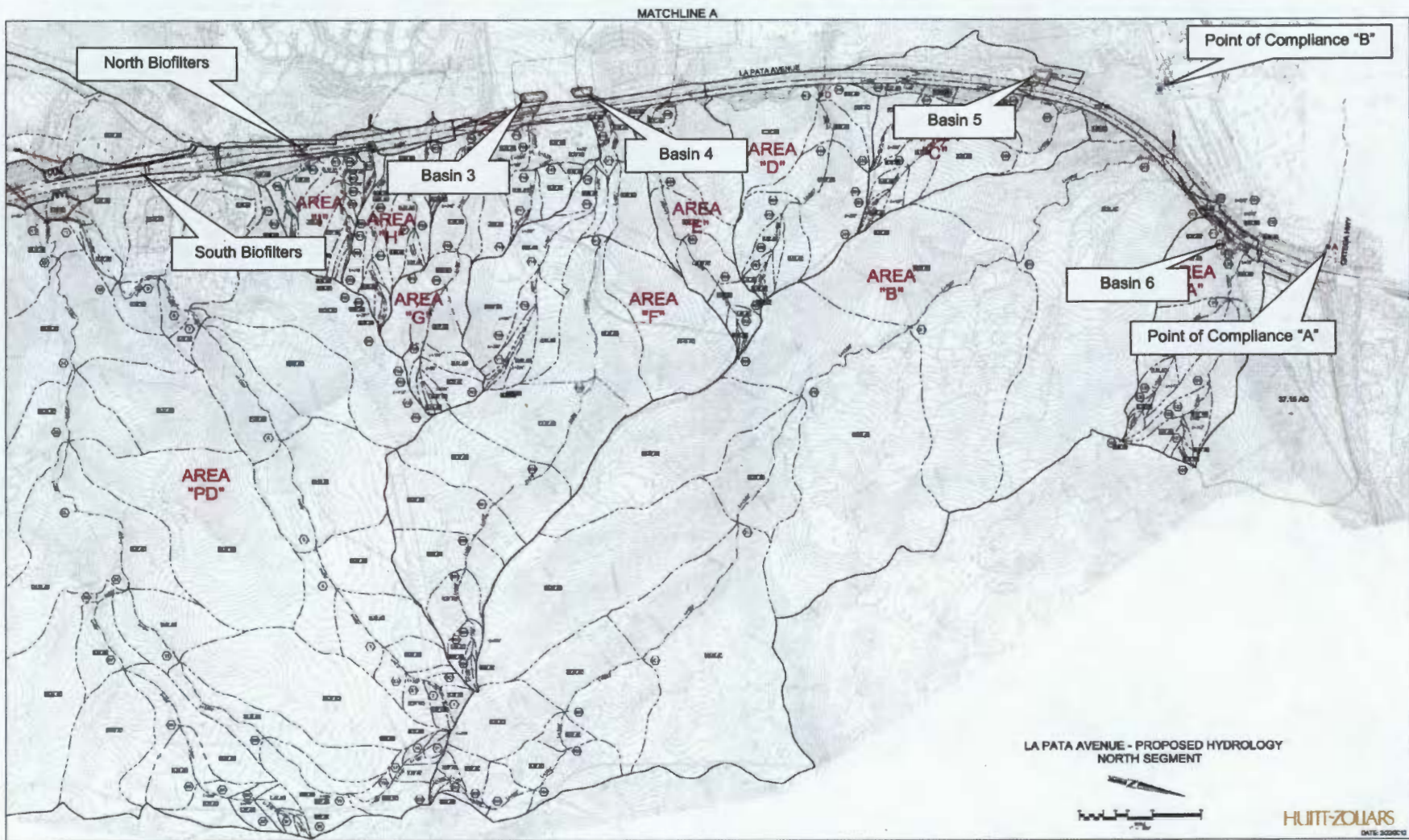


**Figure 4a**  
**Project Topography and Local Hydrology - South**

May 2012

La Pata Avenue Gap Closure  
 Conceptual WQMP

**Geosyntec**  
 consultants

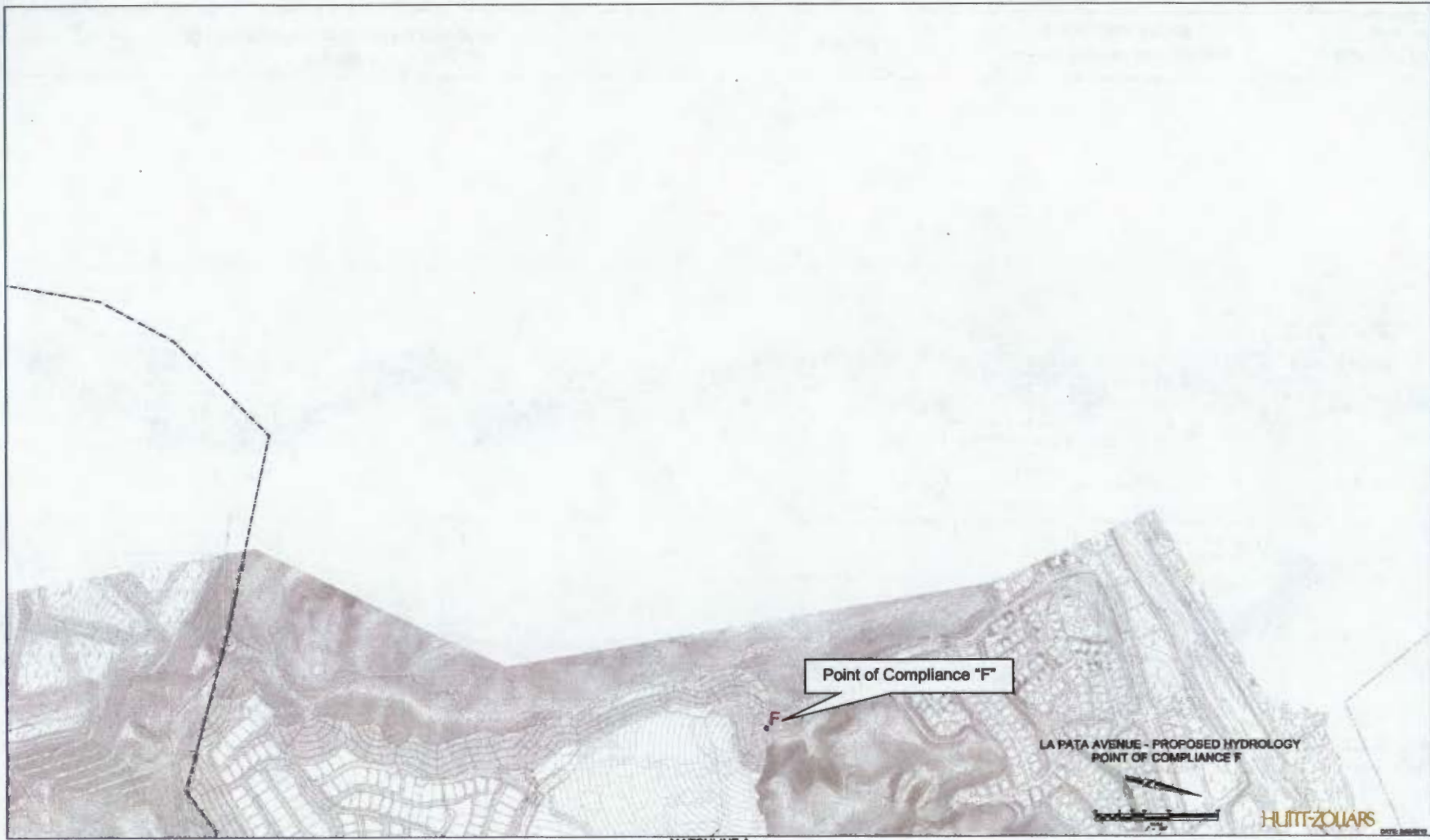


**Figure 4b**  
**Project Topography and Local Hydrology - North**

May 2012

La Pata Avenue Gap Closure  
 Conceptual WQMP

**Geosyntec**<sup>®</sup>  
 consultants



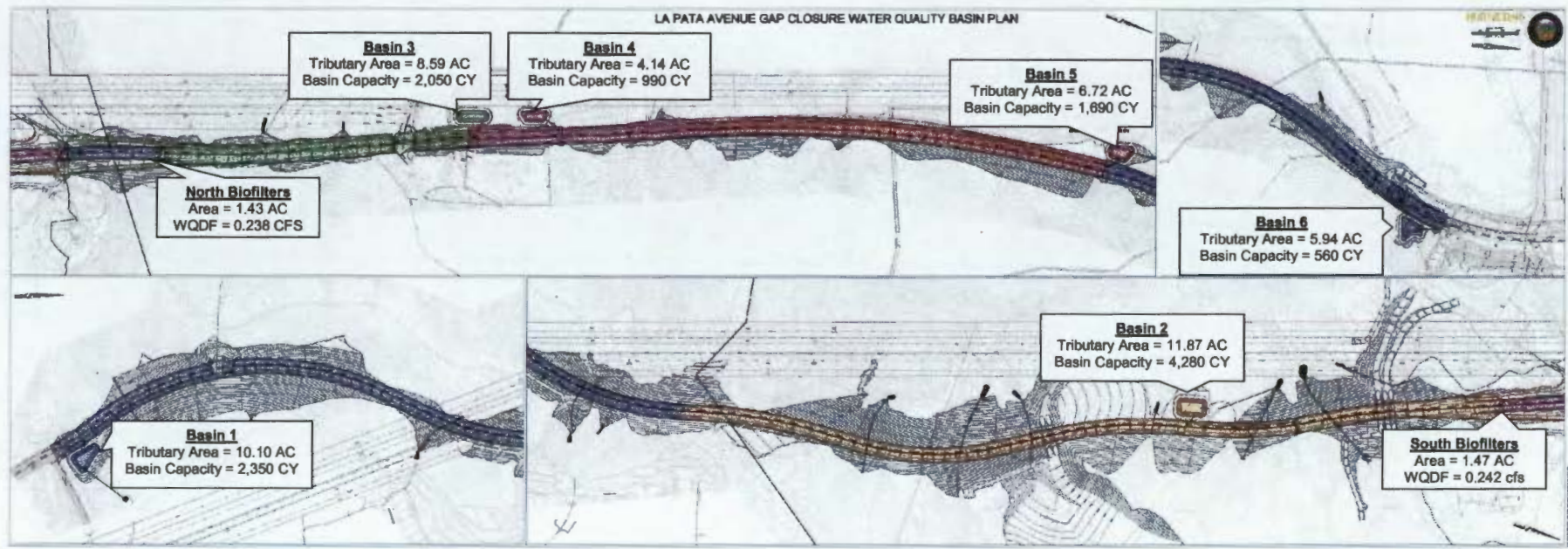
MATCHLINE A

**Figure 4c**  
**Project Topography and Local Hydrology – Point of Compliance F**

May 2012

La Pata Avenue Gap Closure  
 Conceptual WQMP

**Geosyntec**<sup>®</sup>  
 consultants



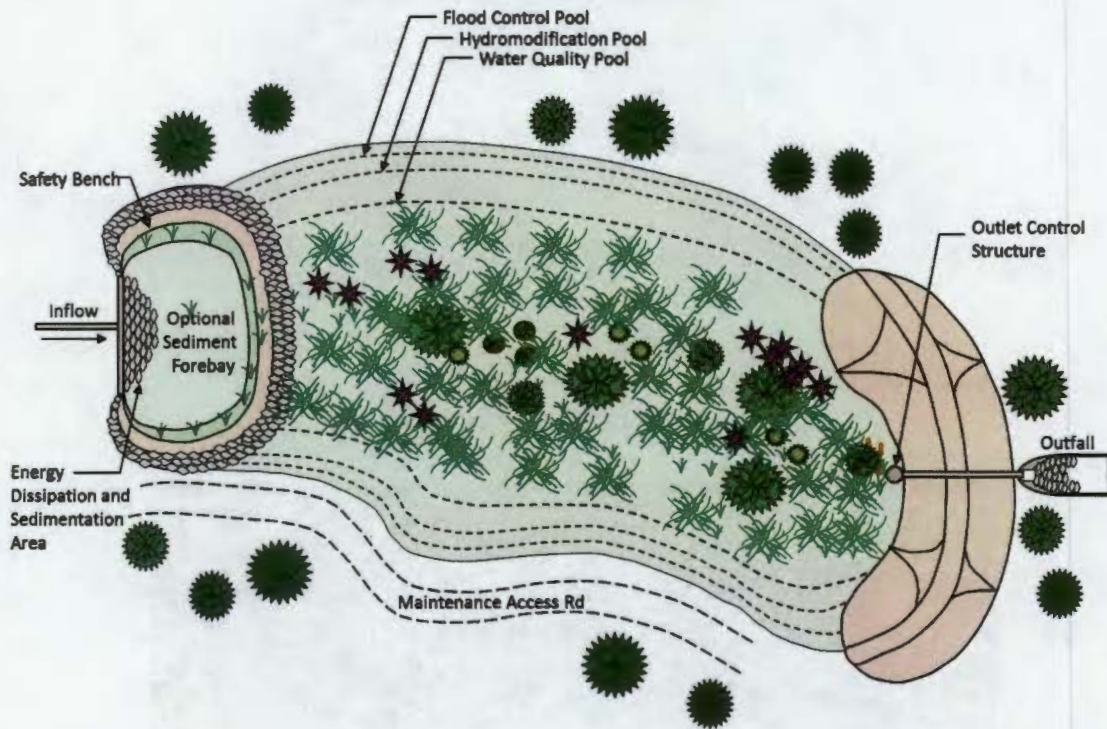
**Figure 5**  
Drainage Plan and BMP Locations

May 2012

La Pata Avenue Gap Closure  
Conceptual WQMP

**Geosyntec**<sup>®</sup>  
consultants

### Schematic Plan View



### Schematic Section View

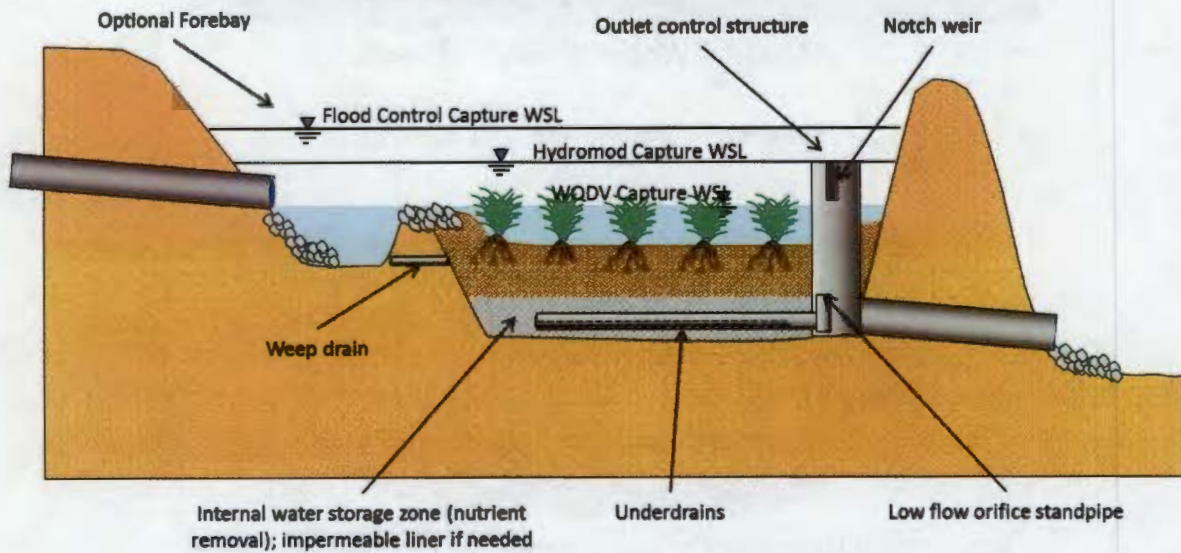


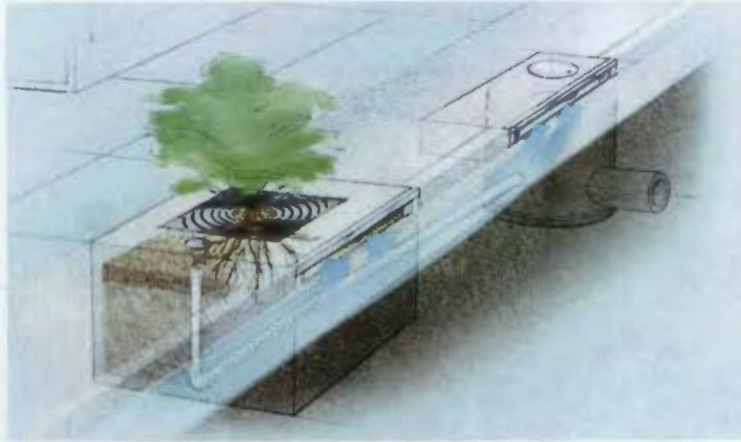
Figure is for illustration purposes only. Not to Scale. Actual design elements and configurations may vary.

**Figure 6a**  
**Conceptual Illustration of Combination Basin**

May 2012

La Pata Avenue Gap Closure  
 Conceptual WQMP

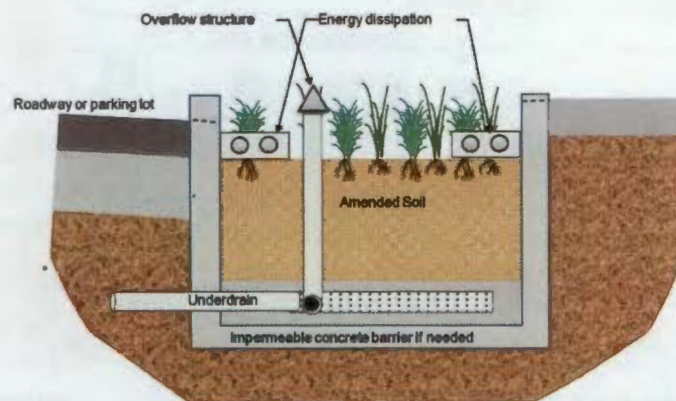
**Geosyntec**<sup>®</sup>  
 consultants



Filterra® Bioretention Filtration System



Modular Wetlands MWS-Linear®



Conceptual Illustration of Non-proprietary Biofiltration Planter

Figure is for illustration purposes only. Actual configurations may vary. Does not constitute product endorsement of BMPs shown above.

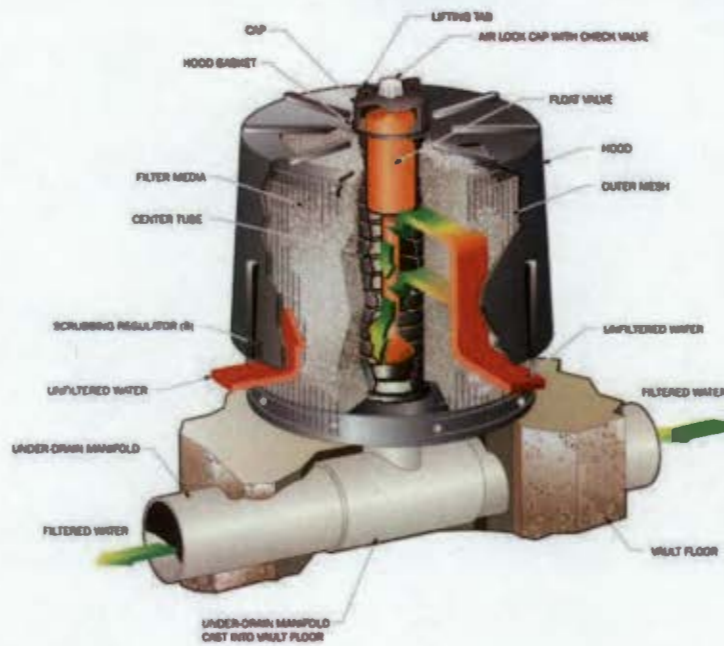
**Figure 6b**  
**Example Conceptual Illustration of Biofiltration Planter Box Options**

May 2012

La Pata Avenue Gap Closure  
 Conceptual WQMP

Geosyntec<sup>®</sup>  
 consultants





Example Contech StormFilter Cartridge



Example Conceptual Illustration of a Cartridge Media Filter

Figure is for illustration purposes only. Actual configurations may vary. Does not constitute product endorsement of BMPs shown above.

**Figure 6b**  
**Example Conceptual Illustration of Cartridge Media Filters**

May 2012

La Pata Avenue Gap Closure  
 Conceptual WQMP

Geosyntec<sup>®</sup>  
 consultants

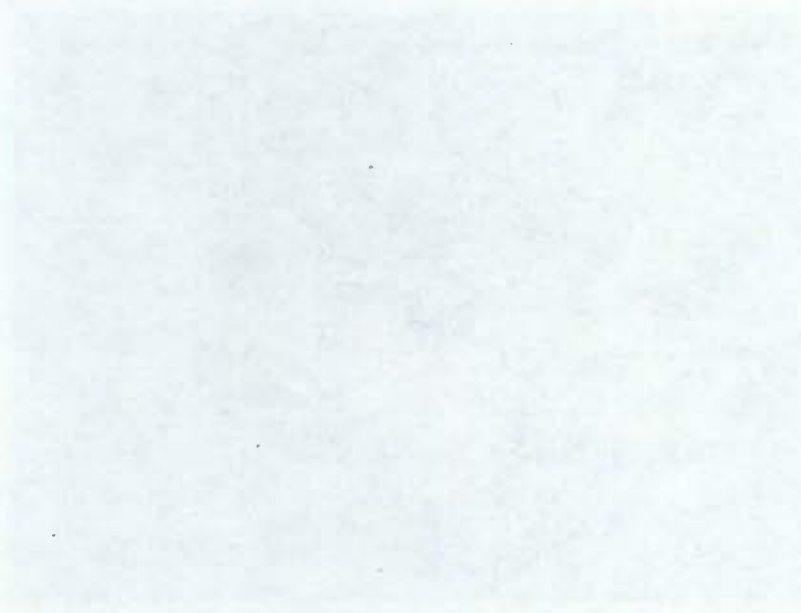
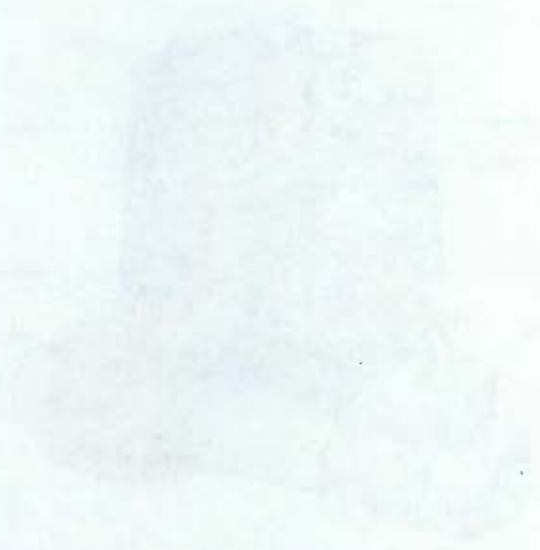


Figure 62  
Anatomical illustration of the human figure

Caption	Figure 62	Page 100
Anatomical illustration of the human figure	Figure 62	Page 100

Orange County Public Works  
La Pata Avenue Extension Project  
Certification No. 12C-056

**ATTACHMENT 5  
MITIGATION FIGURES**

Page 1 of 1  
Date: 10/10/2010  
Time: 10:10:10

10/10/2010  
10:10:10



LSA

LEGEND

- Mitigation Area
- La Pata Avenue Extension Project
- San Juan Creek Arundo Mitigation Location



SOURCE: USGS 7.5 Quad, CANADA GOBERNADORA (88), SAN CLEMENTE (76), SAN JUAN CAPISTRANO (81); Hahn-Zellers (12/2012)  
 I:\ORNG1101\GIS\Mitigation\_Proj\_Vicinity\_2012.mxd (7/2/2013)

FIGURE 1

*La Pata Avenue Extension Project*  
 Habitat Mitigation and Monitoring Plan  
 Project Vicinity



FIGURE 2

LSA

LEGEND

Daylight Line

Riparian Scrub (0.12 ac)

Wetland (0.12 ac)

Vegetation

2.3.2 California sagebrush-Orangebush monkey flower scrub

2.8.5 Mixed sage scrub-Grassland

4.1 Annual grassland

7.3 Mulefat scrub



SOURCE: Bing (c.2010)

FIG1101\CHP\Onsite\_Mitigation\_2012.mxd (6/17/2012)

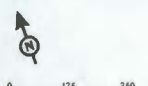
La Pata Avenue Extension Project  
Onsite Mitigation Area



LSA

LEGEND  
 RE - Restoration (5.38 acres)  
 HA - Enhancement (7.88 acres)

FIGURE 4



SOURCE: Microsoft (5/2010)  
 I:\OBG\181\GIS\06\GIS\_Mitigation\_TrabucoCreek\_2012.sxd (7/2/2013)

La Pata Avenue Extension Project  
 Off-site Trabuco Creek Mitigation Area

