

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION**

2375 Northside Drive, Suite.100, San Diego, CA 92108  
Phone (619) 516-1990 • Fax (619) 516-1994  
<http://www.waterboards.ca.gov/sandiego/>

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

**PROJECT:     Morena Pipeline Project**  
**Certification Number R9-2019-0029**  
**WDID: 9000003342**

Reg. Meas. ID: 423323 Place ID: 849903 Party ID: 537145 Person ID: 549084
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**APPLICANT: City of San Diego**  
**525 B Street 750 (MS 908A)**  
**San Diego, CA 92101**

**ACTION:**

<input checked="" type="checkbox"/> Order for Low Impact Certification	<input type="checkbox"/> Order for Denial of Certification
<input 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**

An application dated August 1, 2018 was submitted by the City of San Diego (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (33 U.S.C. § 1341) for the proposed Morena Pipeline Project (Project). The Applicant has also applied for Clean Water Act section 404 Nationwide Permit No. 7 and section 404 Nationwide Permit No. 12 from the United States Army Corps of Engineers for the Project (USACE File Nos. SPL-2017-006-49).

The Project consists of the installation of a new water line to provide a redundant source of water transition to the Coastal Zone of La Jolla and Pacific Beach for supply reliability. The existing water main is over 60 years old and has had numerous failures and does not have enough capacity. The project is located in the City of San Diego, San Diego County, California. The Project's center reading is latitude 32°45'16, longitude -117°121'21"

The Applicant has paid all required fees for this Certification in the amount of \$1500.00. On December 6, 2018, 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 replace an old and failing 16-inch cast iron water main with a new 36-inch water line that will provide a redundant source of water transmission and the

replacement of an existing 16-inch pipe. The 36-inch pipeline will cross a concrete portion of Tecolote Creek. The trench will be cross 35 feet of the creek at a depth of 20 feet.

The pipeline will be installed through an open trench installation by excavating half of the channel while diverting flow to the other side of the channel. Water diversion will consist of an aqua barrier, pumps, and highline bypass. Gravel bag berms will be placed at the downstream of the work area to prevent any sediment or pollutants from leaving the site. A temporary construction ramp will be placed on the surface of the concrete-lined channel and will be constructed of clean gravel. There are no permanent impacts and 0.05 acre of temporary impact to non-wetland waters of the United States and/or State.

Receiving waters potentially affected by the Project are protected in accordance with water quality standards in the *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan). This Certification authorizes temporary impacts to waters of the United States and /or State affected by the Project. The temporary impacts will be restored by the Applicant to pre-Project conditions and do not include physical loss of aquatic resource area or degradation of ecological conditions. Based on all of these considerations, the Applicant's compliance with the terms and conditions of this Certification will ensure that the water quality standards for all waters of the United States and/or State impacted by the Project are met.

## TABLE OF CONTENTS

<b>I.</b>	<b>STANDARD CONDITIONS .....</b>	<b>4</b>
<b>II.</b>	<b>GENERAL CONDITIONS.....</b>	<b>4</b>
<b>III.</b>	<b>PROJECT IMPACTS AND COMPENSATORY MITIGATION .....</b>	<b>7</b>
<b>IV.</b>	<b>MONITORING AND REPORTING REQUIREMENTS.....</b>	<b>8</b>
<b>V.</b>	<b>NOTIFICATION REQUIREMENTS .....</b>	<b>10</b>
<b>VI.</b>	<b>CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE .....</b>	<b>11</b>
<b>VII.</b>	<b>SAN DIEGO WATER BOARD CONTACT PERSON.....</b>	<b>12</b>
<b>VIII.</b>	<b>WATER QUALITY CERTIFICATION .....</b>	<b>12</b>

### Attachments:

1. Definitions
2. Project Figures and Plans

The San Diego Water Board has independently reviewed the record of the Project to analyze the extent and nature of proposed Project impacts to the water quality and beneficial uses of waters of the United States and/or State and associated compensatory mitigation required to offset impacts attributed to the Project. In accordance with this Certification, the Applicant may proceed with the Project under the following terms and conditions:

## I. STANDARD CONDITIONS

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

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

## II. GENERAL CONDITIONS

- A. **Term of Certification.** Water Quality Certification No. R9-2019-0029 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 U.S.C. §1344) permit issued by the U.S. Army Corps of Engineers for this Project, or b) five (5) years from the date of issuance of this Certification, whichever occurs first.
- B. **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.
- C. **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

the 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).

- D. 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.
- E. Project Conformance with Water Quality Control Plans or Policies.** Notwithstanding any more specific conditions in this Certification, the Project shall be constructed in a manner consistent with the Basin Plan and any other applicable water quality control plans or policies adopted or approved pursuant to the Porter Cologne Water Quality Act (Division 7, commencing with Water Code Section 13000) or section 303 of the Clean Water Act (33 U.S.C §1313.). The Basin Plan is accessible on-line at:
- [http://www.waterboards.ca.gov/sandiego/water\\_issues/programs/basin\\_plan/index.shtml](http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml)  
!
- F. 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
- G. Certification Distribution 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.
- H. 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; and
  4. Sample or monitor, at reasonable times, for the purposes of assuring Certification compliance, or as otherwise authorized by the Clean Water Act or Water Code, any substances or parameters at any location.
- I. **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, 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.
- J. **Certification Actions.** This Certification may be modified, revoked and reissued, or terminated for cause including but not limited to the following:
1. Violation of any term or condition of this Certification;
  2. Monitoring results indicate that continued Project activities could violate water quality objectives or impair the beneficial uses of the Tecolote Creek or its tributaries;
  3. Obtaining this Certification by misrepresentation or failure to disclose fully all relevant facts;
  4. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
  5. Incorporation of any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.
- The filing of a request by the Applicant for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Certification condition.
- K. **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.
- L. **Property Rights.** This Certification does not convey any property rights of any sort, or any exclusive privilege.

M. **Petitions.** Any person aggrieved by this action of the San Diego Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with the California Code of Regulations, title 23, sections 3867 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Certification. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: [http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

### III. CONSTRUCTION AND POST CONSTRUCTION BEST MANAGEMENT PRACTICES

- A. **Construction Requirements.** Prior to start of Project construction, 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 pollution control plan, construction BMP plan, and/or erosion and sediment control plan to prevent the discharge of sediment and other pollutants during construction activities.
- B. **Post Construction Requirements.** The Project must meet all the Post-Construction requirements of the San Diego Water Board Order No. R9-2013-0001, National Pollutant Discharge Elimination Systems Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4) Draining the Watersheds within the San Diego Region (Regional MS4 Permit).

### IV. PROJECT IMPACTS AND COMPENSATORY MITIGATION

- A. **Project Impacts and Compensatory Mitigation.** Unavoidable Project impacts to Tecolote Creek and its unnamed tributaries within the Penasquitos Watershed must not exceed the type and magnitude of impacts described in the table below. At a minimum, compensatory mitigation required to offset unavoidable temporary and permanent Project impacts to waters of the United States and/or State must be achieved as described in the table below:

	Impacts (acres)	Impacts (linear ft.)	Mitigation for Impacts (acres)	Mitigation Ratio (area mitigated :area impacted)	Mitigation for Impacts (linear ft.)	Mitigation Ratio (linear feet mitigated :linear feet impacted)
<b>Temporary Impacts<sup>1</sup></b>						
Streambed and Riparian	0.05 <sup>2</sup>	89 <sup>2</sup>	N/A	NA	N/A	N/A

NA – Not applicable

1. All areas of temporary impacts must be restored to pre-project contours and re-vegetated with native species.
2. Temporary impacts associated with trenching for pipelines underneath Tecolote Creek.

**B. Temporary Project Impact Areas.** The Applicant must restore all areas of temporary impacts and all other areas of temporary disturbance which could result in a discharge or a threatened discharge of pollutants to waters of the United States and/or State. Restoration must include grading of disturbed areas to pre-project contours and re-vegetation with native species. The Applicant must implement all necessary BMPs to control erosion and runoff from areas associated with the Project.

## V. MONITORING AND REPORTING REQUIREMENTS

**A. Annual Project Progress Reports.** The Applicant must submit annual Project progress reports describing 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;
3. A description of Project construction delays encountered or anticipated that may affect the schedule for construction completion; and
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.

**B. 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. As-built drawings of the Project, no bigger than 11”X17”; and
4. Photo documentation of implemented post-construction BMPs and all areas of permanent and temporary impacts, 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/401c/401PhotoDocRB9V713.pdf](http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/401c/401PhotoDocRB9V713.pdf). In addition, photo documentation must include Global Positioning System (GPS) coordinates for each of the photo points referenced.

**C. Reporting Authority.** The submittal of information required 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 13385.

**D. Electronic Document Submittal.** The Applicant must submit all reports and information required under this Certification in electronic format via e-mail to [SanDiego@waterboards.ca.gov](mailto:SanDiego@waterboards.ca.gov). Documents over 50 megabytes will not be accepted via e-mail and must be placed on a disc and delivered to:

California Regional Water Quality Control Board  
San Diego Region  
Attn: 401 Certification No. R9-2019-0029:849903:ngergans  
2375 Northside Drive, Suite 100  
San Diego, California 92108

Each electronic document must be submitted as a single file, in Portable Document Format (PDF), and converted to text searchable format using Optical Character Recognition (OCR). All electronic documents must include scanned copies of all signature pages; electronic signatures will not be accepted. Electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. R9-2019-0029:849903:ngergans.

**E. 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.

- F. **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."*

## VI. 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. **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.
- C. **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.

- D. **Discharge Commencement.** The Applicant must notify the San Diego Water Board in writing **at least 5 days prior to** the start of Project construction.

## VII. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

- A. The City of San Diego is the Lead Agency under the California Environmental Quality Act (CEQA) (Public Resources Code section 21000, et seq.) section 21067, and CEQA Guidelines (California Code of Regulations, title 14, section 15000 et seq.) section 15367, and has filed a Notice of Determination dated November 18, 2011 for Mitigated Negative Declaration (MND) titled Mitigated Negative Declaration No. 255100 (State Clearing House Number 2011091045). The Lead Agency 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 is a Responsible Agency under CEQA (Public Resources Code section 21069; CEQA Guidelines section 15381). The San Diego Water Board has considered the Lead Agency's MND and finds that the Project as proposed will have a significant effect on resources within the San Diego Water Board's purview.
- C. The San Diego Water Board has required mitigation measures as a condition of this Certification to avoid or reduce the environmental effects of the Project to resources within the Board's purview to a less than significant level.
- D. As a Responsible Agency under CEQA, the San Diego Water Board will file a Notice of Determination in accordance with CEQA Guidelines section 15096 subdivision(i).

## VIII. SAN DIEGO WATER BOARD CONTACT PERSON

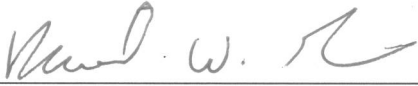
Nicole Gergans, Environmental Scientist  
California Regional Water Quality Control Board, San Diego Region  
2375 Northside Drive, Suite 100  
San Diego, California 92108  
Telephone: 619-521-3969  
Email: [nicole.gergans@waterboards.ca.gov](mailto:nicole.gergans@waterboards.ca.gov)

## IX. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Morena Pipeline Project** (Certification No. R9-2019-0029) 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. R9-2019-0029 issued on February 4, 2019.



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

4 February 2019

Date

# ATTACHMENT 1

## DEFINITIONS

**Activity** - when used in reference to a permit 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 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 and 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 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.

City of San Diego  
Morena Pipeline Project  
Certification No. R9-2019-0029

**ATTACHMENT 2  
PROJECT FIGURES AND PLANS**

- 1) Morena Pipeline Project**
- 2) Morena Pipeline 90% Submittal**







GENERAL NOTES

TRAFFIC REQUIREMENTS:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH) LATEST EDITION, THE LATEST CALIFORNIA M.U.T.C.D., THE CITY OF SAN DIEGO.
2. IN ACCORDANCE WITH THE CALIFORNIA DEPARTMENT OF TRANSPORTATION MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES.
3. IN ACCORDANCE WITH THE CALTRANS STANDARD PLANS AND SPECIFICATIONS WHERE APPLICABLE.

STANDARD SPECIFICATIONS:

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK) INCLUDING THE REGIONAL AND CITY OF SAN DIEGO SUPPLEMENTAL AMENDMENTS.
  2. IN ACCORDANCE WITH THE CITY OF SAN DIEGO STANDARD PLANS AND SPECIFICATIONS (WHITEBOOK) INCLUDING ALL REGIONAL DRAWINGS
  3. IN ACCORDANCE WITH THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
2. ALL APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS
  3. IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.

WORKZONE REQUIREMENTS:

1. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE SITE AND SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING FROM CONSTRUCTION OPERATIONS UNLESS SPECIFIED OTHERWISE. CONTRACTOR SHALL DEMONSTRATE EXTREME CAUTION WHEN TRENCHING IN CLOSE PROXIMITY OF OTHER UTILITIES. ANY SIGN OF DEGRADATION OF THE TRENCH WALL INTEGRITY WILL FORCE THE STOPPAGE OF WORK UNTIL THE TRENCH INTEGRITY IS ADEQUATELY RESTORED. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO EXISTING UTILITIES, PAVEMENT, CURBS, TRAFFIC STRIPING AND MARKINGS, TRAFFIC SIGNAL DETECTOR LOOPS, STRUCTURES, TREES, LANDSCAPING, AND IRRIGATION SYSTEMS, AS A RESULT OF ITS OPERATIONS, AND WILL BE REQUIRED TO REPAIR OR REPLACE SAME TO THE SATISFACTION OF, AND AS DIRECTED BY, THE ENGINEER OR UTILITY COMPANY.
2. THE WORK SITE AND EXTERIOR STREETS SHALL BE MAINTAINED IN A NEAT, CLEAN, HAZARD FREE, ORDERLY STATE THROUGHOUT CONSTRUCTION. SITE SHALL BE CLEANED UPON REQUEST OF THE ENGINEER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL IMMEDIATELY HAUL AWAY AND DISPOSE OF, OFF THE PROJECT SITE, ALL EXCESS EXCAVATED MATERIAL AND CONSTRUCTION DEBRIS. ALL DISPOSALS SHALL BE AT THE CONTRACTOR'S EXPENSE.
3. ALL EXISTING IMPROVEMENTS INCLUDING CURB AND GUTTERS, SIDEWALKS, ASPHALT CONCRETE OR P.C.C. PAVING WHICH ARE BEING JOINED OR MATCHED IN CONNECTION WITH THE PROJECT, SHALL BE JOINED, OR MATCHED IN A MANNER SATISFACTORY TO THE CITY, INCLUDING NECESSARY SAWCUTTING, REMOVAL, REPLACEMENT OR CAPPING.
4. THE CONTRACTOR SHALL CONDUCT CONSTRUCTION OPERATIONS IN SUCH A MANNER THAT STORM OR OTHER WATERS MAY PROCEED UNINTERRUPTED ALONG THE STREET OR DRAINAGE COURSES.
5. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN UNANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE.
6. MATERIALS WHICH MAY HAVE EFFECTS OF POLLUTION INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC FLUIDS, RADIATOR, OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER; CONCRETE DETERGENT OR FLOATABLE WASTES; WASTE FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING, AND SUPER CHLORINATED POTABLE WATER LINE FLUSHING.
7. DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON SITE PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUN-OFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.

GROUNDWATER DISCHARGE NOTES

1. ALL GROUNDWATER EXTRACTIONS AND SIMILAR WASTE DISCHARGES TO SURFACE WATERS NOT TRIBUTARY TO THE SAN DIEGO BAY ARE PROHIBITED UNTIL IT CAN BE DEMONSTRATED THAT THE CONTRACTOR HAS APPLIED AND OBTAINED AUTHORIZATION FROM THE STATE OF CALIFORNIA VIA AN OFFICIAL 'ENROLLMENT LETTER' FROM THE REGIONAL WATER QUALITY CONTROL BOARD IN ACCORDANCE WITH TERMS, PROVISIONS, AND CONDITIONS OF STATE ORDER NO. R9-2008-0002 NPDES CAG919002.
2. THE ESTIMATED MAXIMUM DISCHARGE RATES MUST NOT EXCEED THE LIMITS SET IN THE OFFICIAL 'ENROLLMENT LETTER' OBTAINED FROM THE REGIONAL BOARD UNLESS PRIOR NOTIFICATION AND SUBSEQUENT AUTHORIZATION HAS BEEN OBTAINED, AND DISCHARGE OPERATIONS MODIFIED TO ACCOMMODATE THE INCREASED RATES.
3. ALL GROUND WATER EXTRACTIONS AND SIMILAR WASTE DISCHARGES TO SURFACE WATERS TRIBUTARY TO THE SAN DIEGO BAY ARE PROHIBITED UNTIL IT CAN BE DEMONSTRATED THAT THE CONTRACTOR HAS APPLIED AND OBTAINED AUTHORIZATION FROM THE STATE OF CALIFORNIA VIA AN OFFICIAL 'ENROLLMENT LETTER' FROM THE REGIONAL WATER QUALITY CONTROL BOARD IN ACCORDANCE WITH THE TERMS, PROVISIONS AND CONDITIONS OF STATE ORDER NO. R9-2007-0034, NPDES NO. CAG919001.

ENVIRONMENTAL MITIGATION NOTES:

RIPARIAN BIRD REQUIREMENTS:

1. NO CLEARING, GRUBBING, GRADING, OR OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR DURING THE LEAST BELL'S VIREO BREEDING SEASON (MARCH 15 TO SEPTEMBER 15) AND SOUTHWESTERN WILLOW FLYCATCHER BREEDING SEASON (MAY 1 TO SEPTEMBER 1), UNTIL THE FOLLOWING REQUIREMENTS HAVE BEEN MET TO THE SATISFACTION OF THE ADD/MMC:
  - A QUALIFIED BIOLOGIST (POSSESSING A VALID ENDANGERED SPECIES ACT SECTION 10(A)(1)(A) RECOVERY PERMIT) SHALL SURVEY THOSE HABITAT AREAS WITHIN THE MHPA THAT WOULD BE SUBJECT TO CONSTRUCTION NOISE LEVELS EXCEEDING 60 DECIBELS (DB(A)) HOURLY AVERAGE FOR THE PRESENCE OF THE LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER. SURVEYS FOR LEAST BELL'S VIREO AND SOUTHWESTERN WILLOW FLYCATCHER SHALL BE CONDUCTED PURSUANT TO THE PROTOCOL SURVEY GUIDELINES ESTABLISHED BY THE USFWS WITHIN THE BREEDING SEASON PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. IF LEAST BELL'S VIREO, AND/OR SOUTHWESTERN WILLOW FLYCATCHER ARE PRESENT, THEN THE FOLLOWING CONDITIONS MUST BE MET:
    1. BETWEEN MARCH 15 TO SEPTEMBER 15 FOR LEAST BELL'S VIREO AND MAY 1 TO SEPTEMBER 15 FOR SOUTHWESTERN WILLOW FLYCATCHER, NO CLEARING, GRUBBING, OR GRADING OF OCCUPIED HABITAT SHALL BE PERMITTED. AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; AND
    2. BETWEEN MARCH 15 TO SEPTEMBER 15 FOR LEAST BELL'S VIREO AND/OR MAY 1 TO SEPTEMBER 15 FOR SOUTHWESTERN WILLOW FLYCATCHER NO CONSTRUCTION ACTIVITIES SHALL OCCUR WITHIN ANY PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES WOULD RESULT IN NOISE LEVELS EXCEEDING 60 DB(A) HOURLY AVERAGE AT THE EDGE OF OCCUPIED HABITAT. AN ANALYSIS SHOWING THAT NOISE GENERATED BY CONSTRUCTION ACTIVITIES WOULD NOT EXCEED 60 DB(A) HOURLY AVERAGE AT THE EDGE OF OCCUPIED HABITAT MUST BE COMPLETED BY A QUALIFIED ACOUSTICIAN (POSSESSING CURRENT NOISE ENGINEER LICENSE OR REGISTRATION WITH MONITORING NOISE LEVEL EXPERIENCE WITH LISTED ANIMAL SPECIES) AND APPROVED BY THE ADD/MMC AT LEAST 2 WEEKS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES DURING THE BREEDING SEASON, AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; OR
    3. AT LEAST 2 WEEKS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, UNDER THE DIRECTION OF A QUALIFIED ACOUSTICIAN, ATTENUATION MEASURES (E.G., BERMS, WALLS) SHALL BE IMPLEMENTED TO ENSURE THAT NOISE LEVELS RESULTING FROM CONSTRUCTION ACTIVITIES WOULD NOT EXCEED 60 DB(A) HOURLY AVERAGE AT THE EDGE OF HABITAT OCCUPIED BY THE LEAST BELL'S VIREO, AND/OR SOUTHWESTERN WILLOW FLYCATCHER. CONCURRENT WITH THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND THE CONSTRUCTION OF NECESSARY NOISE ATTENUATION FACILITIES, NOISE MONITORING SHALL BE CONDUCTED AT THE EDGE OF THE OCCUPIED HABITAT AREA TO ENSURE THAT LEVELS DO NOT EXCEED 60 DB(A) HOURLY AVERAGE. IF THE NOISE ATTENUATION TECHNIQUES IMPLEMENTED ARE DETERMINED TO BE INADEQUATE BY THE QUALIFIED ACOUSTICIAN OR BIOLOGIST, THEN THE ASSOCIATED CONSTRUCTION ACTIVITIES SHALL CEASE UNTIL SUCH TIME THAT ADEQUATE NOISE ATTENUATION IS ACHIEVED OR UNTIL THE END OF THE BREEDING SEASON (AUGUST 16). CONSTRUCTION NOISE MONITORING SHALL CONTINUE TO BE MONITORED AT LEAST TWICE WEEKLY ON VARYING DAYS, OR MORE FREQUENTLY DEPENDING ON THE CONSTRUCTION ACTIVITY, TO VERIFY THAT NOISE LEVELS AT THE EDGE OF OCCUPIED HABITAT ARE MAINTAINED BELOW 60 DB(A) HOURLY AVERAGE OR TO THE AMBIENT NOISE LEVEL IF IT ALREADY EXCEEDS 60 DB(A) HOURLY AVERAGE. IF NOT, OTHER MEASURES SHALL BE IMPLEMENTED IN CONSULTATION WITH THE BIOLOGIST AND THE ADD/MMC, AS NECESSARY, TO REDUCE NOISE LEVELS TO BELOW 60 DB(A) HOURLY AVERAGE OR TO THE AMBIENT NOISE LEVEL IF IT ALREADY EXCEEDS 60 DB(A) HOURLY AVERAGE. SUCH MEASURES MAY INCLUDE, BUT ARE NOT LIMITED TO, LIMITATIONS ON THE PLACEMENT OF CONSTRUCTION EQUIPMENT AND THE SIMULTANEOUS USE OF EQUIPMENT.
  - IF LEAST BELL'S VIREO AND/OR SOUTHWESTERN WILLOW FLYCATCHER ARE NOT DETECTED DURING THE PROTOCOL SURVEY, THE QUALIFIED BIOLOGIST SHALL SUBMIT SUBSTANTIAL EVIDENCE TO THE ADD/MMC AND APPLICABLE RESOURCE AGENCIES WHICH DEMONSTRATES WHETHER OR NOT MITIGATION MEASURES SUCH AS NOISE WALLS ARE NECESSARY BETWEEN MARCH 15 TO SEPTEMBER 15 FOR LEAST BELL'S VIREO AND/OR MAY 1 TO SEPTEMBER 15 FOR SOUTHWESTERN WILLOW FLYCATCHER ADHERENCE TO THE FOLLOWING IS REQUIRED:
    1. IF THIS EVIDENCE INDICATES THAT THE POTENTIAL IS HIGH FOR LEAST BELL'S VIREO AND/OR SOUTHWESTERN WILLOW FLYCATCHER TO BE PRESENT BASED ON HISTORICAL RECORDS OR SITE CONDITIONS, THEN CONDITION (A) SHALL BE ADHERED TO AS SPECIFIED ABOVE.
    2. IF THIS EVIDENCE CONCLUDES THAT NO IMPACTS TO THIS SPECIES ARE ANTICIPATED, NO MITIGATION MEASURES WOULD BE NECESSARY.

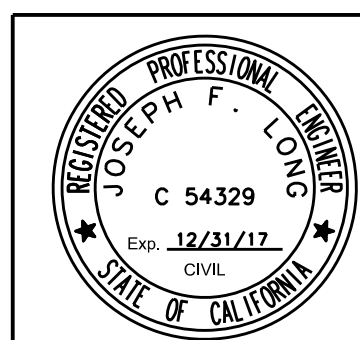
ABBREVIATIONS

<	ANGLE
* OR IN	INCH
* OR FT	FOOT
AB	ANCHOR BOLT
ABAN, ABND	ABANDONED UTILITY
OR ABAND	
AC	ASPHALT CONCRETE, ASBESTOS CEMENT
AG	ABOVE GROUND
AHD	AHEAD
ALT	ALTERNATIVE
APPOX	APPROXIMATE
APVD	APPROVED
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AV	AIR VALVE
AVAR	AIR VACUUM AND AIR RELEASE
AVE	AVENUE
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BEGINNING OF CURVE
BCR	BEGINNING OF CURVE RETURN
BDRY	BOUNDARY
BFP	BACK FLOW PREVENTER
BV	BUTTERFLY VALVE
BK	BACK
BLDG	BUILDING
BLK	BLOCK
BM	BENCHMARK
BO	BLOW-OFF ASSEMBLY
BP	BYPASS
BVC	BEGINNING OF VERTICAL CURVE
C&G	CURB AND GUTTER
CAB	CRUSHED AGGREGATE BASE
CALC	CALCULATED
CATV	CABLE TELEVISION
CB	CATCH BASIN
CCP	CONCRETE CYLINDER PIPE
CF	CURB FACE
CHNG	CHANGE
CIP	CAST IRON PIPE
CJ	CONSTRUCTION JOINT
CKV	CHECK VALVE
CL	CENTERLINE, CLASS, CHAIN LINK
CLR	CLEAR
CML	CEMENT MORTAR LINED
CMU	CONCRETE MASONRY UNIT
CML&TC	CEMENT MORTAR LINED & TAPE COATED
CMP	CORRUGATED METAL PIPE
COMM	COMMUNICATION
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CP	CATHODIC PROTECTION
CTR	CENTER
CTV	CABLE TELEVISION
DET	DETAIL
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DISTR	DISTRIBUTION
DWG	DRAWING
DWT	DETECTABLE WARNING TILE
DWY	DRIVEWAY
E	ELECTRICAL LINE OR EAST
EA	EACH
EC	END OF CURVE
ECR	END OF CURB RETURN
EG	EXISTING GRADE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ENCL	ENCLOSURE, ENCLOSED
EP	EDGE OF PAVEMENT
EO	EQUAL
ESMT	EASEMENT
EVC	END OF VERTICAL CURVE
EW	EACH WAY
EX, EXIST	EXISTING
F	FLANGE
FBC	FURNISHED BY CITY
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FIG	FIGURE
FL	FLOW LINE
FLG	FLANGED
FM	FORCE MAIN
FO	FIBER OPTIC (CABLE)
FS	FINISHED SURFACE
FT	FEET
FUT	FUTURE
FWY	FREEWAY
G	GAS (LINE)
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BREAK
GIS	GEOGRAPHICAL INFORMATION SYSTEM
GV	GATE VALVE
GCBP	GATE VALVE WITH BYPASS
H/P	HIGH POINT
HORIZ	HORIZONTAL
HPI	HORIZONTAL POINT OF INTERSECTION
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH
INSUL	INSULATING
IRR	IRRIGATION LINE
JT	JOINT
KV	KILOVOLT
L/P	LOW POINT
L	LENGTH
LF	LINEAR FEET
LT	LEFT
MAX	MAXIMUM

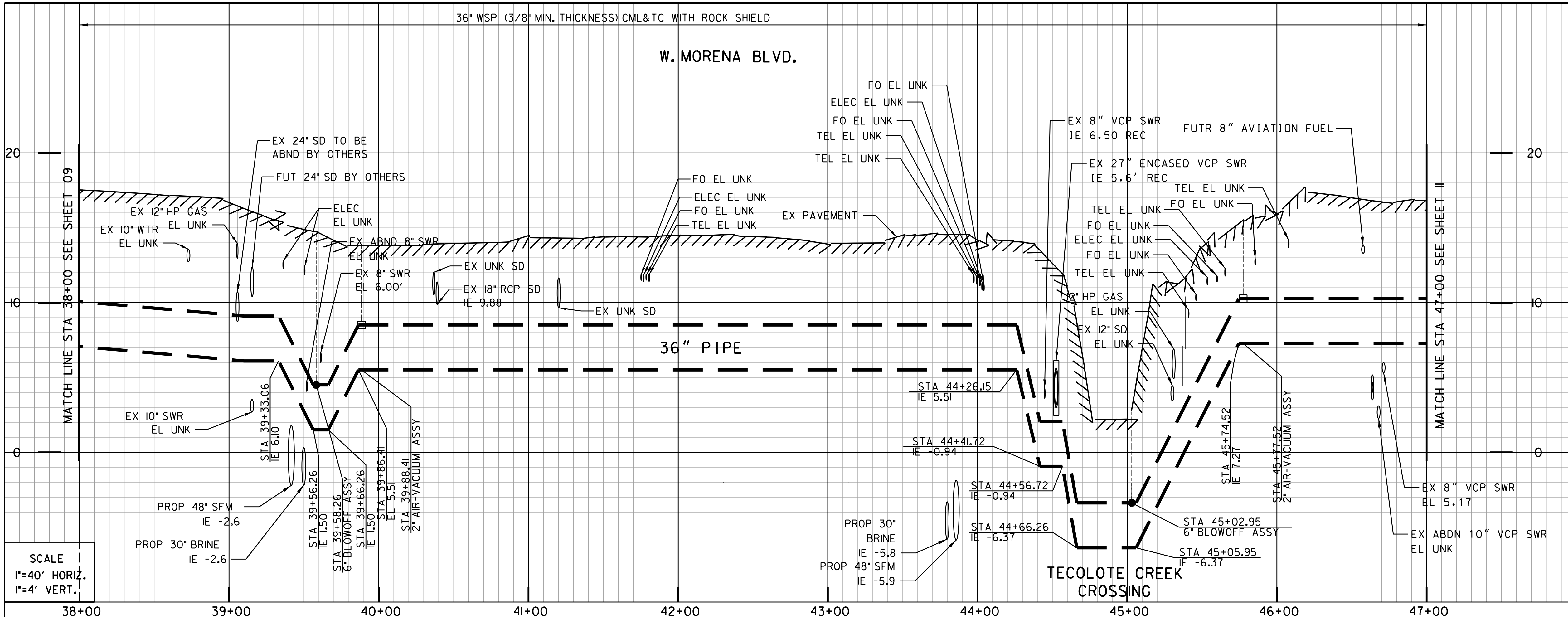
MECH	MECHANICAL
MEAS	FIELD MEASURED
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MOD	MODIFY, MODIFIED
MTS	SAN DIEGO METROPOLITAN TRANSIT SYSTEM
N	NORTH
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NCTD	NORTH COUNTY TRANSIT DISTRICT
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
NTU	NEPHELOMETRIC TURBIDITY UNITS
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
PE/BS	PLAIN END, BUTT STRAP
PC	PORTLAND CEMENT
PG&E	PACIFIC GAS AND ELECTRIC
PH	POT HOLE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PP	POWER POLE
PPB	PEDESTRIAN PUSH BUTTON
PROP	PROPOSED
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
R	RADIUS LENGTH
R/W, ROW	RIGHT OF WAY
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REC	RECORD DRAWING
RED	REDUCER
REF	REFERENCE
REINF	REINFORCEMENT
REOD	REQUIRED
REV	REVISION
RR	RAILROAD
RT	RIGHT
S/W	SIDEWALK
S	SEWER/SLOPE/SOUTH SIGN
SCHD	SCHEDULE
SD	STORM DRAIN (LINE)
SDRSD	SAN DIEGO REGIONAL STANDARD DRAWINGS
SDSD	CITY OF SAN DIEGO STANDARD DRAWINGS
SEC	SECONDARY, SECONDS
SHT	SHEET
SPECS	SPECIFICATIONS
STA	STATION
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL, STRUCTURE
SWR	SEWER
TBD	TO BE DETERMINED
TC	TOP OF CURB
TEL	TELEPHONE
TEMP	TEMPORARY
THK	THICK, THICKNESS
TP	TELEPHONE POLE
TS	TEST STATION
TV	TELEVISION
TYP	TYPICAL
UG	UNDERGROUND
UNK	UNKNOWN
VAC	VACUUM
VAR	VARIABLE
VB	VALVE BOX
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
W	WITH
W/O	WITHOUT
W	WEST
WB	WELDED BELL
WM	WATER METER
WSP	WELDED STEEL PIPE
WTR	WATER
XING	CROSSING
XSEC	CROSS SECTION

G-2

MORENA PIPELINES – PACKAGE C																					
GENERAL NOTES & ABBREVIATIONS																					
CITY OF SAN DIEGO, CALIFORNIA PUBLIC UTILITIES DEPARTMENT SHEET 02 OF 137 SHEETS	WATER WBS S-16027																				
APPROVED: NABIL BATTA FOR CITY ENGINEER DATE _____ PRINT NAME _____ RCE# _____	SUBMITTED BY: <b>LAILA NASRAWI</b> PROJECT MANAGER CHECKED BY: <b>DARIN SANCHEZ</b> PROJECT ENGINEER																				
<table border="1"> <thead> <tr> <th>DESCRIPTION</th> <th>BY</th> <th>APPROVED</th> <th>DATE</th> <th>FILED</th> </tr> </thead> <tbody> <tr> <td>ORIGINAL</td> <td>xx/xx</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	DESCRIPTION	BY	APPROVED	DATE	FILED	ORIGINAL	xx/xx														000-0000 CCS27 COORDINATE 0000-0000 CCS83 COORDINATE
DESCRIPTION	BY	APPROVED	DATE	FILED																	
ORIGINAL	xx/xx																				
CONTRACTOR _____ INSPECTOR _____	DATE STARTED _____ DATE COMPLETED _____ 40380-02-D																				



GENERAL NOTES & ABBREVIATIONS



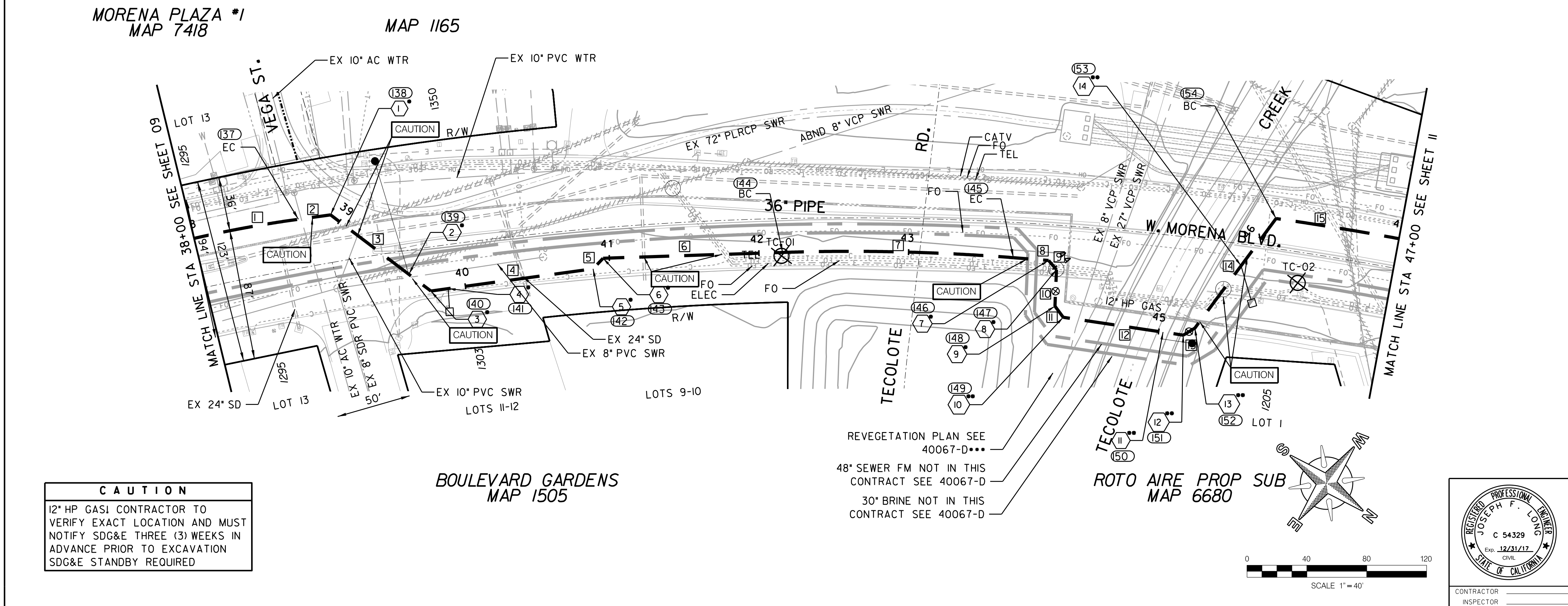
\*SEE CONSTRUCTION NOTES ON SHEET C-5  
 \*\*SEE CONSTRUCTION NOTES ON SHEET C-7  
 \*\*\*SEE ENVIRONMENTAL MITIGATION NOTES ON SHEET G-3

REFERENCE:

WATER: 15934-D, 15368-D  
 SEWER: 30417-D, 28217-D, 25119-D, 3503-D, 1346-D, 16851-D, 30417-D  
 STORM DRAIN: NO INFO  
 GAS: 15772-118955, 15772-118960  
 ELECTRIC: NO INFO  
 CABLE TV: 104-211  
 ATT&TELEPHONE: NO INFO  
 IMPROVEMENTS: NO INFO  
 100' SCALE/FIELD BOOK:  
 THOMAS BROS.:  
 HGL:

COORDINATE TABLE

NO.	NORTHING	EASTING	DESCRIPTION
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(39)	1861341.90	6268400.31	B.O.
(40)	1861360.36	6268400.32	HPI
(41)	1861368.63	6268392.05	AVAR
(42)	1861437.73	6268322.97	HPI
(43)	1861438.73	6268313.33	HPI
(44)	1861531.90	6268237.71	BC
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(46)	1861676.67	6268134.51	HPI
(47)	1861684.58	6268136.22	HPI
(48)	1861698.54	6268156.32	HPI
(49)	1861707.41	6268158.90	HPI
(50)	1861766.55	6268126.46	B.O.
(51)	1861778.48	6268119.91	HPI
(52)	1861781.86	6268111.47	HPI
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(54)	1861780.76	6268020.31	BC



PROPOSED PIPE DATA TABLE

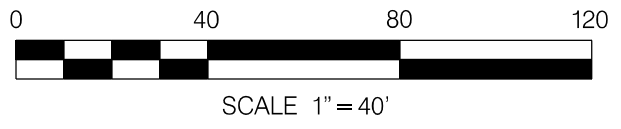
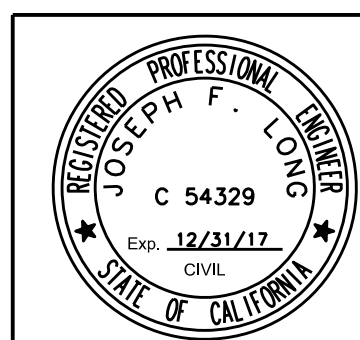
NO.	Δ/BEARING	RADIUS	LENGTH	REMARKS
1	5° 12' 29"	780'	70.9'	36" CML&TC STL
2	N44° 59' 37"W		21.67'	36" CML&TC STL
3	N0° 00' 23"E		84.15'	36" CML&TC STL
4	N44° 59' 37"W		109.4'	36" CML&TC STL
5	N84° 03' 47"W		9.69'	36" CML&TC STL
6	N39° 03' 47"W		120.0'	36" CML&TC STL
7	6° 18' 57"	1400'	154.32'	36" CML&TC STL
8	N32° 44' 51"W		23.57'	36" CML&TC STL
9	N12° 15' 09"E		8.1'	36" CML&TC STL
10	N55° 12' 17"E		24.47'	36" CML&TC STL
11	N16° 14' 55"E		9.24'	36" CML&TC STL
12	N28° 45' 05"W		81.06'	36" CML&TC STL
13	N68° 11' 32"W		9.09'	36" CML&TC STL
14	S89° 18' 28"W		91.17'	36" CML&TC STL
15	2° 21' 34"	2020'	83.18'	36" CML&TC STL

MORENA PIPELINES - PACKAGE C

WATER TRANSMISSION MAIN  
 STA. 38+00 TO STA. 47+00 W. MORENA BLVD.

CITY OF SAN DIEGO, CALIFORNIA  
 PUBLIC UTILITIES DEPARTMENT  
 SHEET 10 OF 137 SHEETS

APPROVED FOR CITY ENGINEER	DATE	WATER WBS	S-16027	
PRINT NAME	RCE#	SUBMITTED BY	LAILA NASRAWI PROJECT MANAGER	
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	xx/xx			
CREATED BY				DARIN SANCHEZ PROJECT ENGINEER
000-0000				CCS27 COORDINATE
0000-0000				CCS83 COORDINATE
CONTRACTOR				DATE STARTED
INSPECTOR				DATE COMPLETED

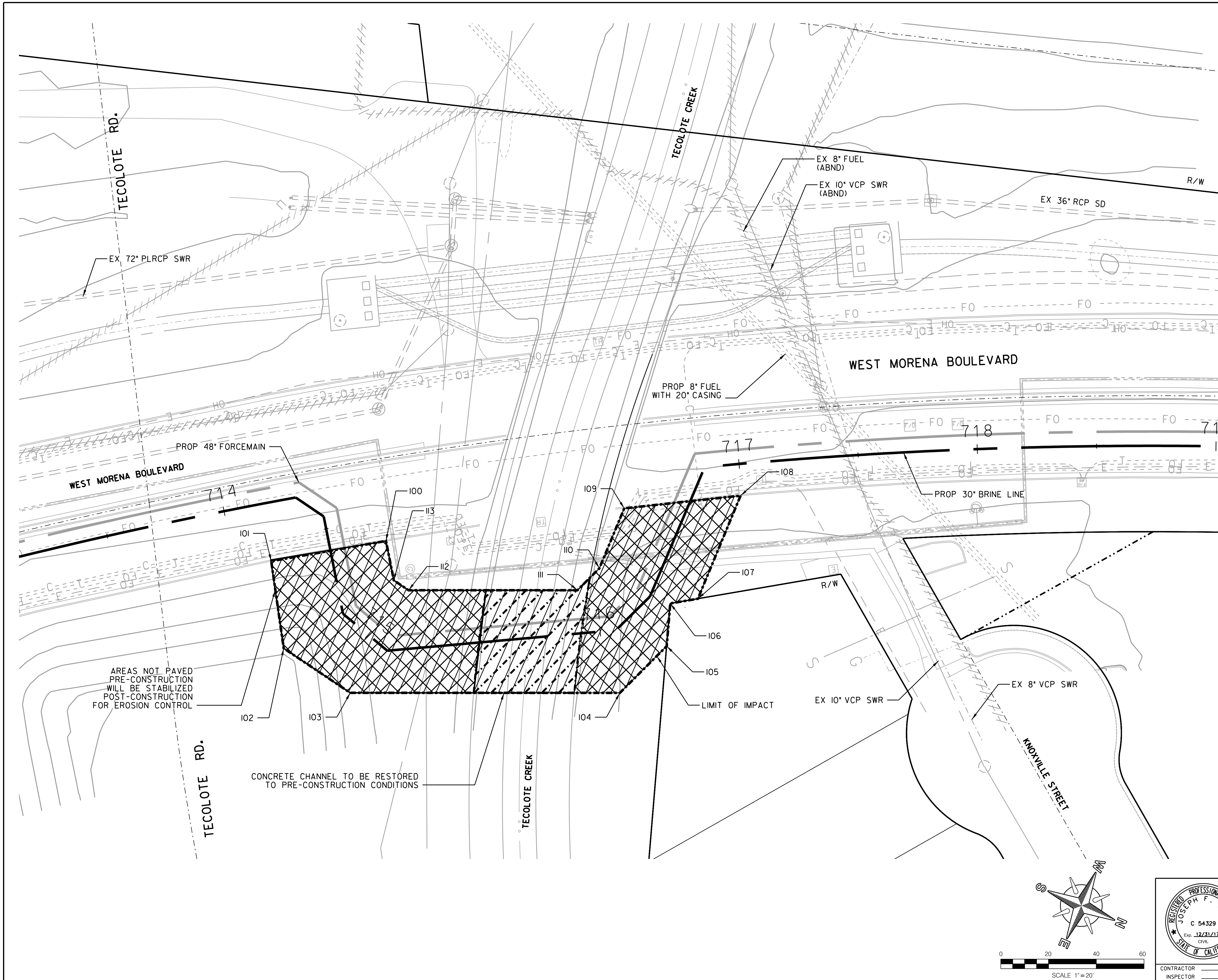


W. MORENA BLVD.

C-6







**REVEGETATION GENERAL NOTES:**

- 1. ALL PROJECT REVEGETATION AREAS SHALL CONFORM TO THE REQUIREMENTS DESCRIBED IN "CONCEPTUAL REVEGETATION PLAN FOR THE NORTH CITY PROJECT, CITY OF SAN DIEGO, CALIFORNIA"

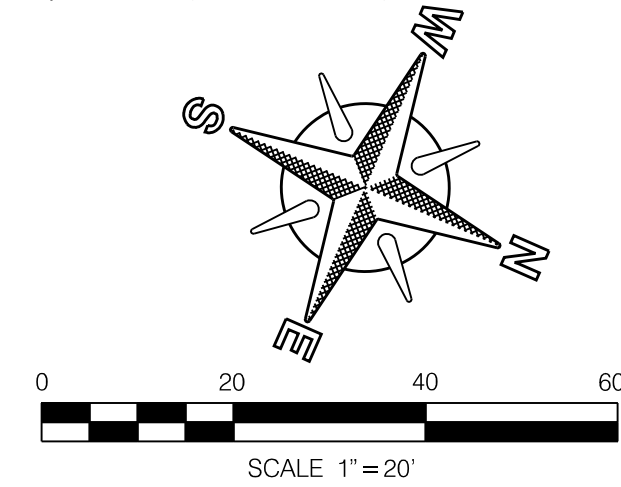
**LEGEND**

- EROSION CONTROL AREA (TEMPORARY IMPACT AREA) NATIVE EROSION CONTROL HYDROSEED MIX TO BE USED
- CONCRETE CHANNEL TO BE RESTORED POST CONSTRUCTION

LIMIT OF IMPACT		
NO.	NORTHING	EASTING
100	1861690.7871	6268137.9745
101	1861650.1137	6268184.9658
102	1861669.5490	6268196.3418
103	1861702.5431	6268202.2556
104	1861806.0336	6268157.0670
105	1861816.1615	6268131.2392
106	1861810.3606	6268114.2740
107	1861820.1704	6268107.8149
108	1861819.2830	6268061.1024
109	1861776.7382	6268085.4720
110	1861777.2549	6268112.6708
111	1861772.5037	6268124.7872
112	1861707.7188	6268153.0753
113	1861700.3776	6268151.7537

AREAS NOT PAVED PRE-CONSTRUCTION WILL BE STABILIZED POST-CONSTRUCTION FOR EROSION CONTROL

CONCRETE CHANNEL TO BE RESTORED TO PRE-CONSTRUCTION CONDITIONS



C-198

**NC MORENA PUMP STATION AND PIPELINES PACKAGE B**

**REVEGETATION PLAN**

**TECOLOTE CREEK CROSSING**

**STA. 713+00 TO STA. 719+00 W. MORENA BLVD.**

CITY OF SAN DIEGO, CALIFORNIA PUBLIC UTILITIES DEPARTMENT SHEET 2060F SHEETS		SEWER WBS B-15141
APPROVED: NABIL BATTA FOR CITY ENGINEER	DATE	DRAWN BY: <b>LAILA NASRAWI</b> PROJECT MANAGER
PRINT NAME	RCE#	CHECKED BY: <b>DARIN SANCHEZ</b> PROJECT ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	xx/xx	DATE
FILMED		DATE
CONTRACTOR		DATE STARTED
INSPECTOR		DATE COMPLETED