

**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: Lake Hodges Hypolimnetic Oxygenation System
Project
Certification Number R9-2016-0204
WDID: 9000003110

Reg. Meas. ID: 409723 Place ID: 829015 Party ID: 524058 Person ID: 524058
--

APPLICANT: City of San Diego
Public Utilities Department
9192 Topaz Way
San Diego, CA 92123

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 October 12, 2016 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 Lake Hodges Hypolimnetic Oxygenation System (Project). The Applicant has also applied for Clean Water Act section 404 Nationwide Permit No. 27 from the United States Army Corps of Engineers for the Project (USACE File No. SPL-2016-00014-MBT).

The Project consists of the installation of a hypolimnetic oxygenation system to increase dissolved oxygen in the hypolimnion and decrease nutrient loading and associated algal growth in Lake Hodges in San Diego, California. The Project's center reading is latitude 32.2811044, longitude -117.5948161

The Applicant has paid all required fees for this Certification in the amount of \$200.00. On October 25, 2016, 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.

Lake Hodges Hypolimnetic Oxygenation System Project
Certification No. R9-2016-0204

The Applicant proposes to install a hypolimnetic oxygenation system (HOS) at the bottom of Lake Hodges in order to improve water quality. The lake has high nutrient loading and deep areas have low levels of dissolved oxygen. The HOS will create an increase in dissolved oxygen that will decrease nutrient loading making the water suitable to be treated and used as drinking water.

The system will be installed 3000 feet upstream from Lake Hodges Dam and 700 south east from the abandoned reservoir operator residence. The in water portion of the project includes placement of drain rock blanket, installation of a speece cone and submersible pump, and placement of oxygen and electrical lines. In water work would occur with a barge and crane. Sludge would be side casted and the divers would install the system. Ancillary piping would be connected to the HOS. An articulated concrete mat will be installed at the nearshore and will measure 6 feet by 50 feet in area. The impacts from the rock drain are 0.07 acre (40 linear feet) and the impacts from the concrete articulated map are 0.007 (50 linear feet) acre for a total of 0.077 acre (90 linear) of impact to non-wetland waters of 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 permanent and temporary impacts to waters of the United States and /or State affected by the Project and requires compensatory mitigation to offset adverse impacts as described in section VI of the Certification. 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

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

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. R9-2016-0204 (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.

- 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
!
- 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 Lake Hodges 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 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 an Lake Hodges and its unnamed tributaries within the San Dieguito 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)
Permanent Impacts						
Lake	0.077 ¹	90	N/A ²	N/A	NA	NA

NA – Not applicable

1. Permanent impacts associated with placing a rock drain, two conduit pipes, and an articulated concrete mat on the lake bottom.
2. The impacts will not result in a decrease and functions and services and the project purpose is to improve the water quality through reducing nutrient loading in Lake Hodges.

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. 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. 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. R9-2016-0204:829015: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. R9-2016-0204:829015: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 January 24, 2017 for the Final Mitigated Negative Declaration (MND) titled Final Mitigated Negative Declaration for Project Number 49570 (State Clearing House Number 2016081072). The Lead Agency has determined the Project will in its approved form with mitigation measures will not have significant effect on the environment.

- A. 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 with mitigation measures will not have a significant effect on resources within the San Diego Water Board's purview.
- B. 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.
- C. 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

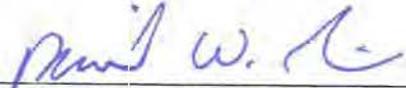
Nicole Gergans, Environmental Scientist
California Regional Water Quality Control Board, San Diego Region
2375 Northside Drive, Suite 100
San Diego, California 92108
Telephone: 619-521-3969
Email: nicole.gergans@waterboards.ca.gov

IX. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Lake Hodges Hypolimnetic Oxygenation System Project** (Certification No. R9-2016-0204) 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. R9-2016-0204 issued on October 20, 2017.



DAVID W. GIBSON
Executive Officer
San Diego Water Board

20 October 2017

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.

**ATTACHMENT 2
PROJECT LOCATION, FIGURES AND PLANS**

- 1) Figure 1 – General Location Map**
- 2) Figure 1 – Site 2 – Lake Hodges HOS Project: Location Map**
- 3) Figure 2 – Site 2 – Lake Hodges HOS Project: Overview**
- 4) Lake Hodges HOS Project: Project Design Jurisdictional Waters**
- 5) Conceptual Plans for Lake Hodges Reservoir**



FIGURE 1
General Location Map

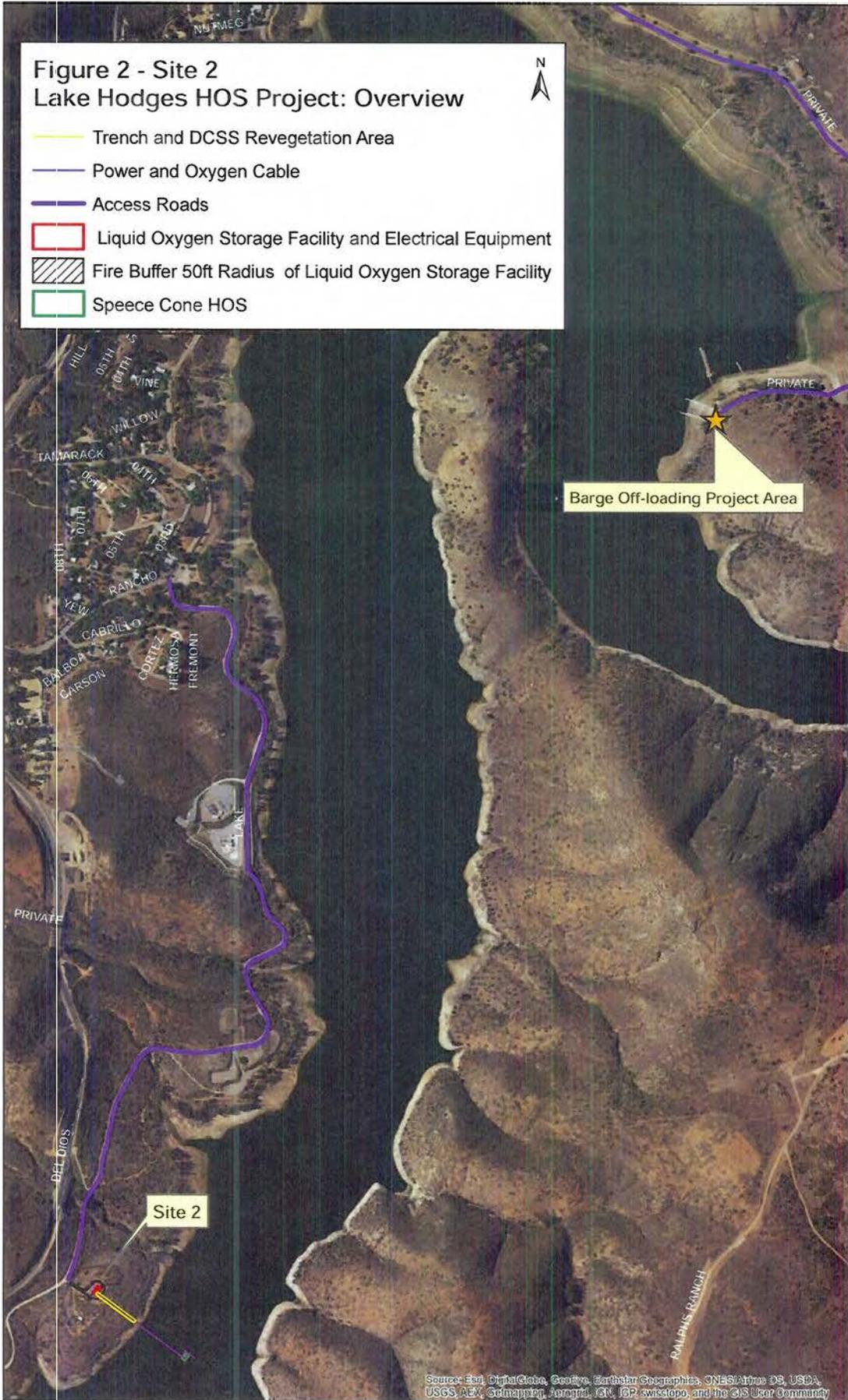
100044728

Lake Hodges Quagga

Figure 2 - Site 2
Lake Hodges HOS Project: Overview



- Trench and DCSS Revegetation Area
- Power and Oxygen Cable
- Access Roads
- Liquid Oxygen Storage Facility and Electrical Equipment
- Fire Buffer 50ft Radius of Liquid Oxygen Storage Facility
- Speece Cone HOS



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Geomatics, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community



CONCEPTUAL PLANS FOR
 LAKE HODGES RESERVOIR - HYPOLIMNETIC OXYGENATION SYSTEM (HOS)
 CITY OF SAN DIEGO PUBLIC UTILITIES
 AUGUST 2015



VICINITY MAP
 NOT TO SCALE



LOCATION MAP
 NOT TO SCALE

INDEX TO PROJECT DRAWINGS

<u>SHEET NO</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	RESERVOIR HYPOLIMNETIC OXYGENATION SYSTEM
3	DETAILS OF HOS SPEECC CONE
4	UNDERWATER EQUIPMENT PAD & MULTI-TIERED ROCK BASE PLAN AND SECTION
5	DETAILS OF OXYGEN SUPPLY FACILITY

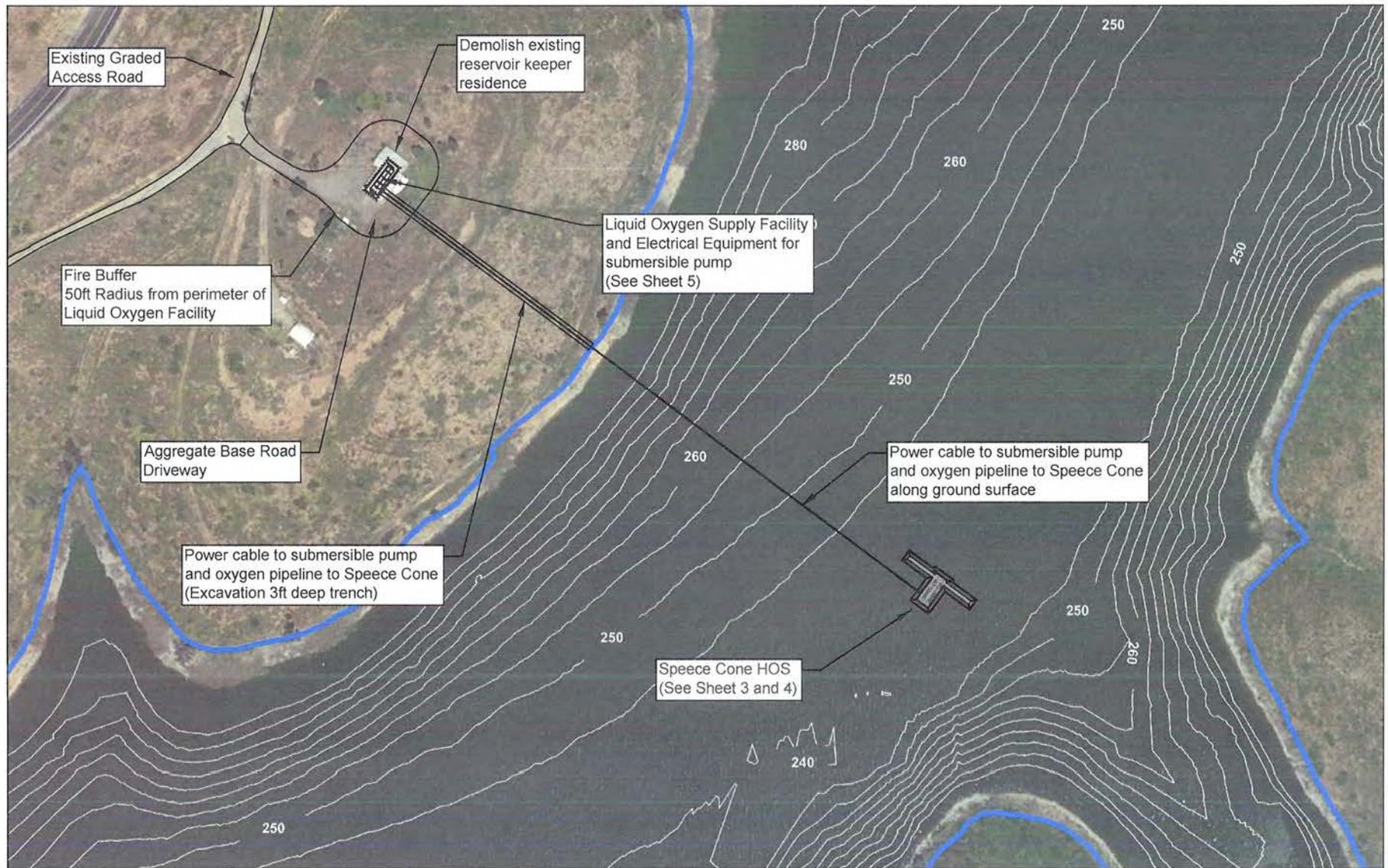
Approximate Scale:
 NOT TO SCALE

CITY OF SAN DIEGO
PUBLIC UTILITIES PROJECT, WATER BRANCH



City of San Diego Public Utilities Department

Lake Hodges Reservoir - H.O.S.
 TITLE PAGE
 SHEET 1 OF 5



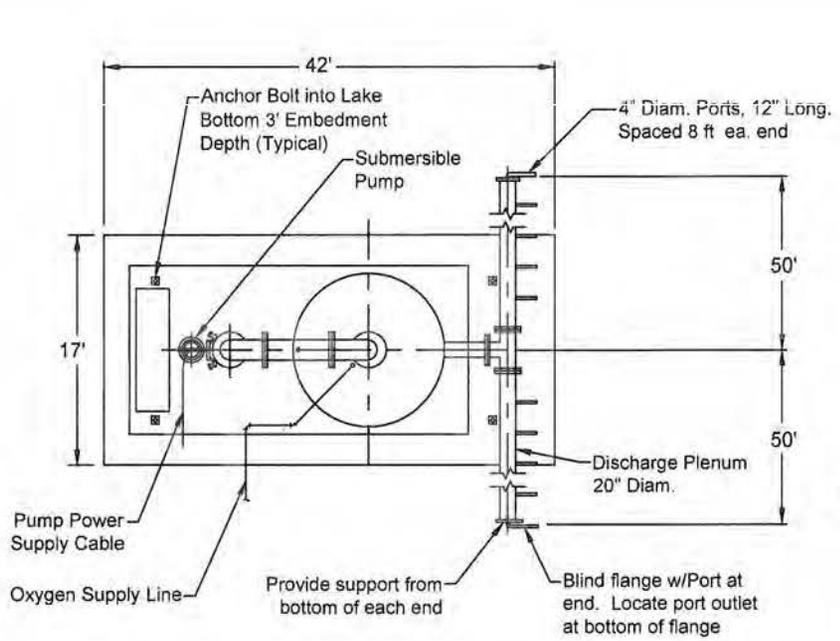
Approximate Scale:
NOT TO SCALE

CITY OF SAN DIEGO
PUBLIC UTILITIES PROJECT, WATER BRANCH

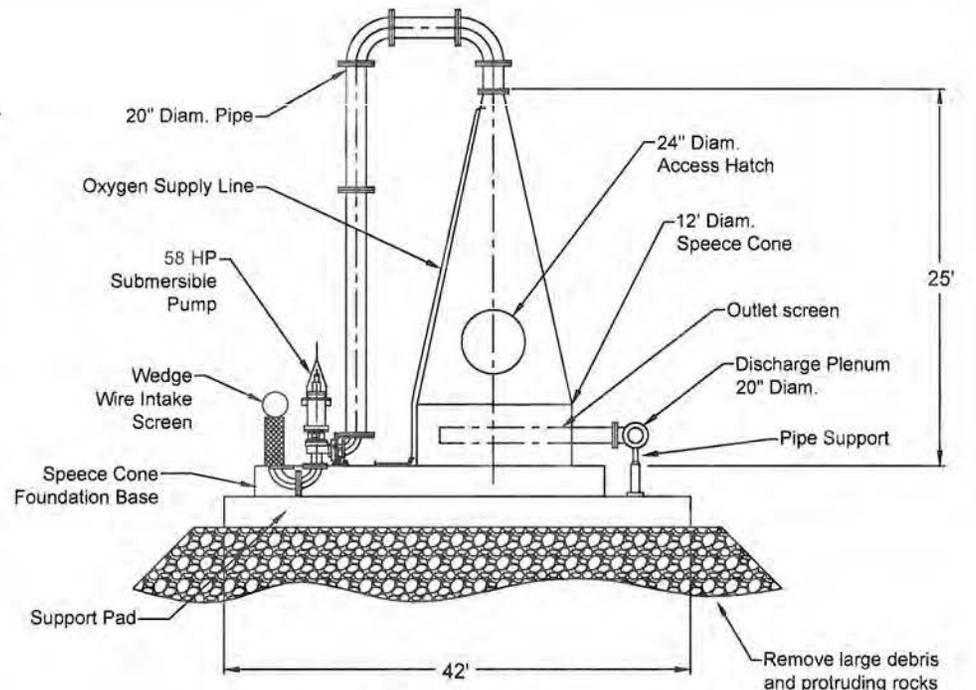


City of San Diego Public Utilities Department

Lake Hodges Reservoir - H.O.S.
GENERAL LAYOUT
SHEET 2 OF 5

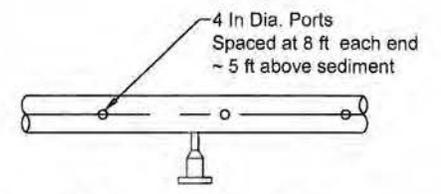


PLAN
NOT TO SCALE



ELEVATION
NOT TO SCALE

Speece Cone Concept
DETAIL "A"
NOT TO SCALE



DIFFUSER DETAILS
NOT TO SCALE

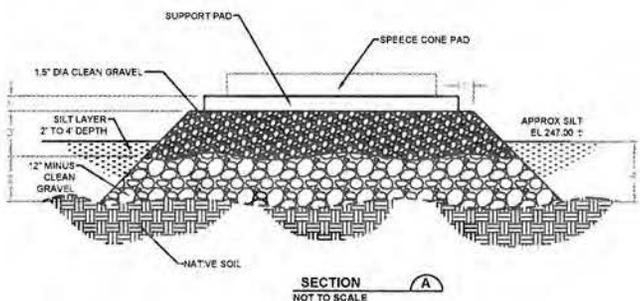
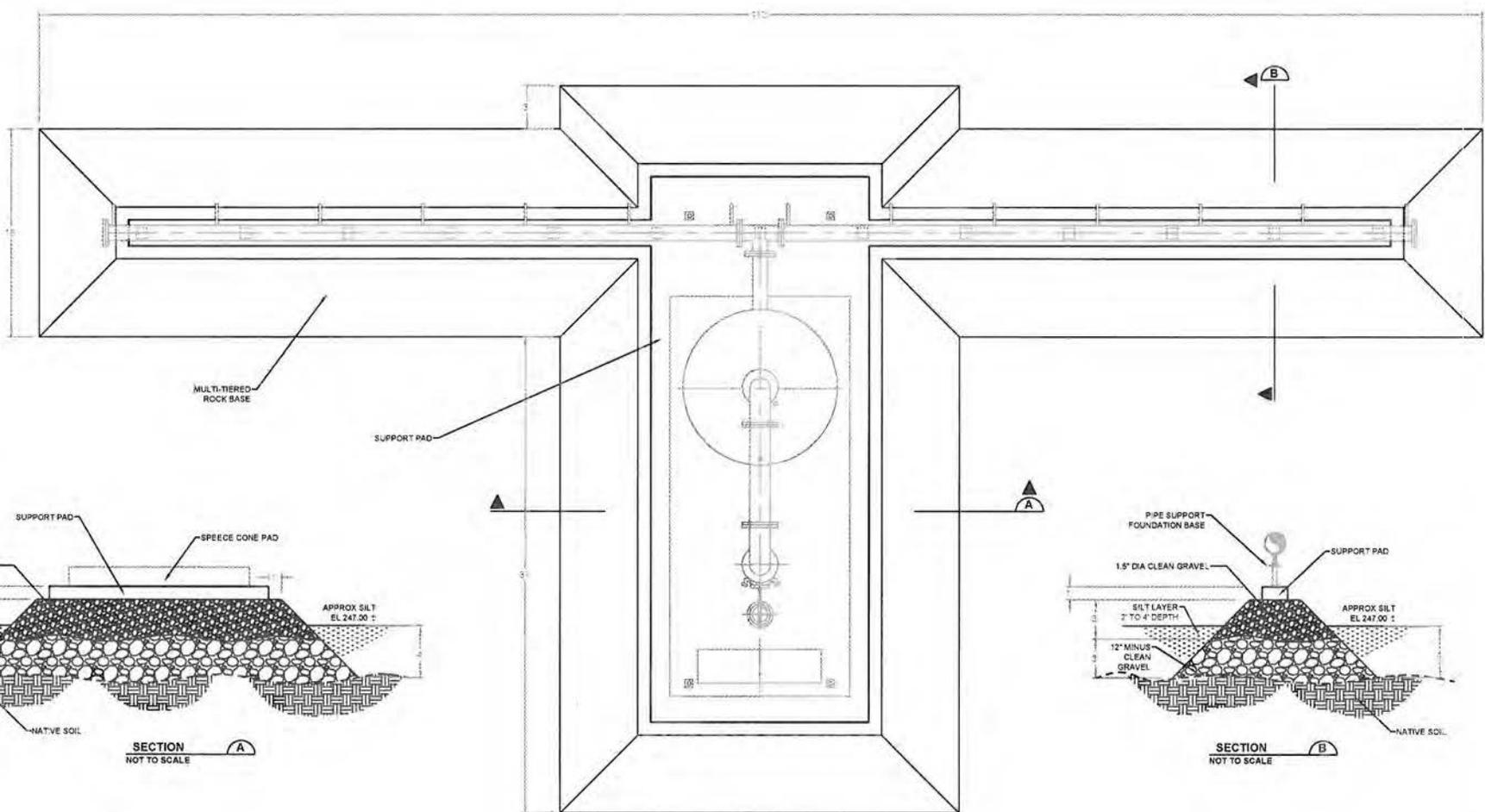
Approximate Scale:
NOT TO SCALE

CITY OF SAN DIEGO
PUBLIC UTILITIES PROJECT, WATER BRANCH

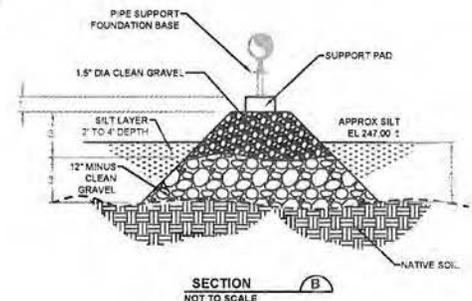


City of San Diego Public Utilities Department

Lake Hodges Reservoir - H.O.S.
SPEECE CONE DETAILS
SHEET 3 OF 5



SECTION A
NOT TO SCALE



SECTION B
NOT TO SCALE

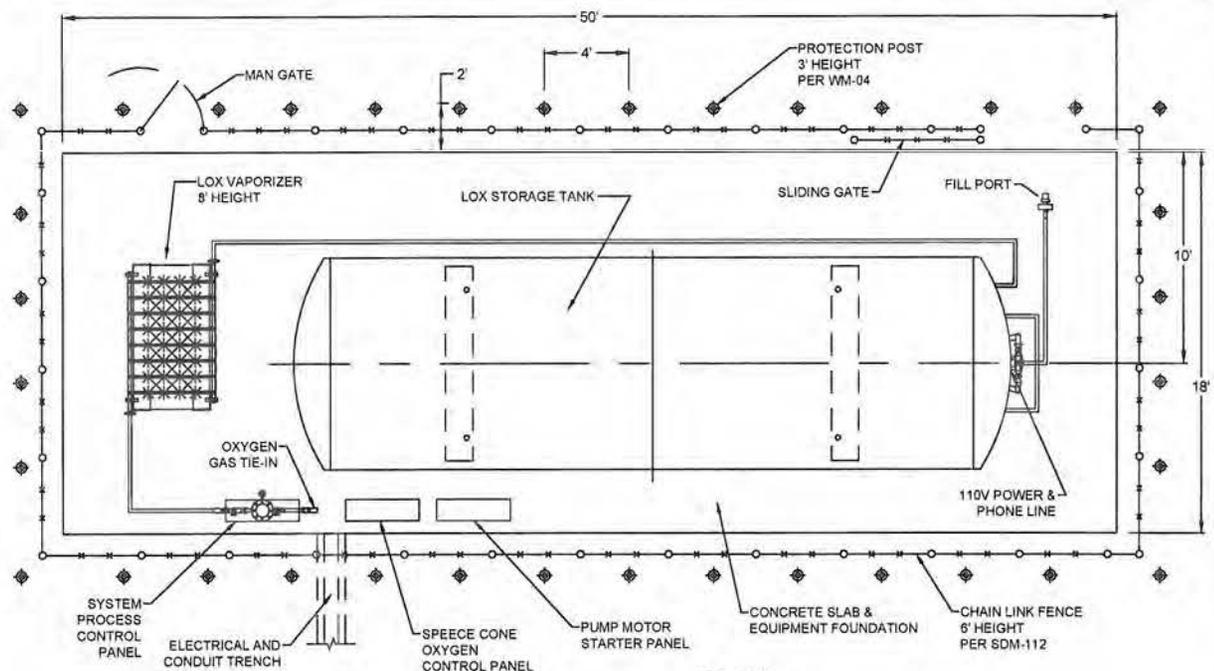
PLAN
NOT TO SCALE

Approximate Scale:
NOT TO SCALE

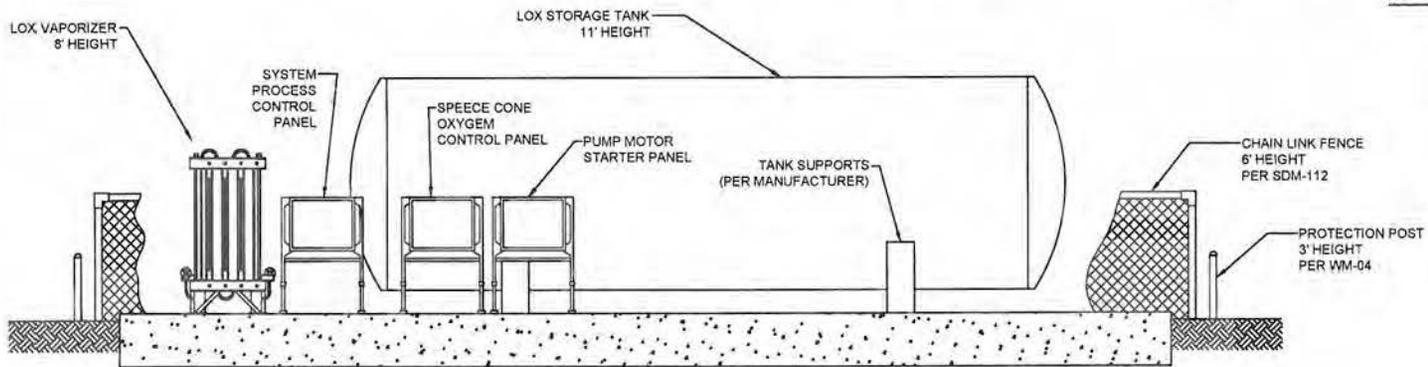
CITY OF SAN DIEGO
PUBLIC UTILITIES PROJECT, WATER BRANCH



City of San Diego Public Utilities Department
Lake Hodges Reservoir - H.O.S.
UNDERWATER EQPMT PAD & MULTI-TIERED
ROCK BASE PLAN & SECTION
SHEET 4 OF 5



PLAN



ELEVATION

Approximate Scale:
NOT TO SCALE

**CITY OF SAN DIEGO
PUBLIC UTILITIES PROJECT, WATER BRANCH**



City of San Diego Public Utilities Department

Lake Hodges Reservoir - H.O.S.
LOX SUPPLY FACILITY
SHEET 5 OF 5