



## West Basin Municipal Water District

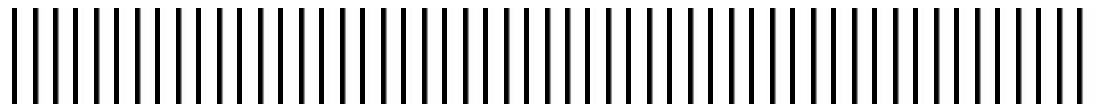
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# Ocean Water Desalination Program Master Plan (PMP)

Project Permitting Plan (PPP)

January 2013



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# 1. Introduction

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## 1.1. Objective

The Project Permitting Plan (PPP) addresses the key regulatory permits that will need to be obtained by West Basin and the Metropolitan Water District of Southern California (MWD) in order to complete the desalination project. Critical issues for each permit are identified, along with additional data and studies needed in order to prepare the permit. Content for permit applications and suggestions to negotiate favorable permit provisions and conditions are also discussed. Finally, this plan will also define the scope and budget for the implementation of the engineering support studies needed for project permitting. This plan broadly discusses but does not focus on general construction permits that would be needed. Discussions with lead and supporting Agencies will be critical to refining the information presented in the PPP and honing in on which of the discretionary studies will truly be needed.

Alternatives of each key project component (intake, pretreatment, reverse osmosis desalination system, post-treatment and product delivery) will be subjected to a more detailed environmental review during the environmental impact report (EIR) phase of the project. Land use, lease agreements, lease modifications, and easements will also need to be further identified. While these items are integral to the permitting process, EIR and entitlements will be discussed separately in the *Environmental Review Plan (ERP)* and *Project Entitlement Acquisition Plan (PEAP)* respectively.

## 2. Anticipated Project Permits and Supporting Studies

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The following Sections identify the permits that are anticipated to be required for West Basin's proposed Ocean Water Desalination Facility. The permit discussions are categorized by permit type. Most permits are issued by a lead agency, but can require coordination with multiple agencies, as discussed in each Section below.

### 2.1. Domestic Water Supply Permit Amendment (DWSP)

#### 2.1.1. Permit Overview and Lead Agency

The 1974 Federal Safe Drinking Water Act (SDWA) along with the 1986 and 1996 amendments provide the statutory basis for the water supply permit program. The SDWA allows the US Environmental Protection Agency (USEPA) to delegate their authority to state governments, enabling states to perform many of the permitting, administrative, and enforcement aspects of the water supply program.

The California Department of Public Health (CDPH) is responsible for developing, implementing, and enforcing of the drinking water laws of California. A water system that intends to serve potable drinking water to the public may not operate without having secured a domestic water supply permit (DWSP) from CDPH. The field operations branch staff perform field inspections, issue operating permits, review plans and specifications for new facilities, and review water quality monitoring results. The CDPH works with the USEPA, the State Water Resources Control Board, Regional Water Quality Control Boards (RWQCBs), and a wide variety of other parties interested in the protection of drinking water supplies.

The State water supply permit is a one-time permit and is issued prior to the operation of a drinking water system. In order to ensure that the system will be able to provide a safe and reliable supply of drinking water with the capability of meeting regulatory requirements, CDPH will conduct a thorough evaluation of the proposed system before issuing a water supply permit.

#### 2.1.2. Permit Requirements and Process

Because the development of a new seawater desalination plant would represent West Basin's first drinking water treatment infrastructure, a new CDPH-issued DWSP must be obtained. In addition to the desalination plant itself, the DWSP encompasses all of the associated drinking water conveyance, storage, and appurtenant equipment, as well. The first step in this process is the preparation and submittal of a 1-page Domestic Water

Supply Permit Application Form. This action is the procedural equivalent of opening a ticket with CDPH, initiating the subsequent process of working with the CDPH to secure the permit. While there are relatively few requirements for obtaining a DWSP that are specified in the California Code of Regulations, it is important to note that the CDPH has broad authority over the issuance of permits. Thus, the local District Engineer, who is ultimately responsible for approving the permit amendment, has wide discretionary latitude to require studies and impose both conceptual and detailed design features as precursors for permit approval. Consequently, obtaining CDPH approval is one of the most extensive and time-consuming steps in the implementation of a seawater desalination plant.

A summary of the studies and reports that may be necessary to obtain CDPH approval for a DWSP amendment for a new seawater desalination plant are summarized in **Table 2-1**. The table differentiates those elements that are specifically required by mandate from those that are likely to be required by the CDPH as conditions for permit approval. For those studies, reports, and analyses not specifically mandated under California regulatory code, the CDPH has the discretion to vary the requirements of those elements. Additional studies and reports may be required at the discretion of the CDPH.

In some cases, the CDPH also has the authority to waive permit requirements under certain conditions. For example, the CDPH allowed Sand City to forego the preparation of a watershed sanitary survey in exchange for achieving a higher level of pathogen removal and inactivation through the treatment process of its seawater desalination plant. Due to the anticipated complexity, time, and cost of conducting the watershed sanitary survey for a small 300,000 gpd plant, the City considered this to a beneficial agreement with the CDPH.

In addition to the permit components summarized in **Table 2-1**, the CDPH will also require a review of the preliminary design report and associated drawings for the desalination plant and all related infrastructure (e.g., conveyance, storage tanks, etc.), as well as alarm and control descriptions. The CDPH will provide comments on the design, requiring any changes it determines to be necessary as a condition of permit approval. It is also likely that a staff engineer for the CDPH will field verify the control logic and alarms.

**Table 2-1: Summary of DWSP Amendment Components**

Permit Component	Required?	Description / Necessary Element
Technical, Managerial, and Financial (TMF) Capacity	Required	Detailed information to demonstrate to the CDPH that West Basin has technical, managerial, and financial capacity to deliver potable drinking water in accordance with state regulations
Technical / Engineering Report	Required	Detailed information about the desalination facility source water, treatment processes, and design, as well as new conveyance and storage associated with the plant and new supply
Operations Plan	Required	Detailed information about the desalination plant and operations, including system descriptions, design criteria, chemical usage, water quality monitoring, control systems, alarms, staffing, and operational procedures (e.g., startup, shutdown, etc.)
Water Quality Emergency Notification Plan	Required	Description of notification procedures to be followed in the event of a water quality emergency, including contact information for key water agency and CDPH personnel, as well as notification language to be used
Distribution System Monitoring Plan		Monitoring plan for compliance with regulations application to distribution system water quality, including the Stage 2 Disinfectants and Disinfection By-Products Rule, the Total Coliform Rule, and Lead & Copper Rule
Watershed Sanitary Survey		Source water characterization, treatment plant influent specifications, finished water quality specifications, inventory of potential pollution sources, water quality monitoring plan (source and finished water), and treatment performance
Drinking Water Source Assessment and Protection (DWSAP) Program Documentation		Delineation of the area around a drinking water source through which contaminants might move and reach that drinking water supply, an inventory of possible contaminating activities (PCAs) that might lead to the release of microbiological or chemical contaminants within the delineated area, and a determination of the PCAs to which the drinking water source is most vulnerable
Tracer Study		Determine pathogen inactivation (i.e., CT) achieved in pipelines, treatment processes, and/or storage (e.g., clearwells) in which primary disinfection is applied
CT Analysis		Detailed description of the use of the treatment plant processes to achieve required pathogen control levels (i.e., for <i>Giardia</i> , <i>Cryptosporidium</i> , and virus) via a combination of physical removal and physical / chemical inactivation

Permit Component	Required?	Description / Necessary Element
Operations Maintenance and Monitoring Plan	Required at CDPH Discretion	Detailed operations and maintenance plan for both the desalination plant, including water quality sampling
Chlorine / Chloramine Residual Stability Analysis	Required at CDPH Discretion	Analysis of the decay profile of chlorine and chloramines used in secondary (i.e., residual) disinfection in desalinated seawater
DBP Formation and Blending Analysis	Required at CDPH Discretion	Analysis of the formation of disinfection by-products in desalinated seawater supplies, and the impact of blending on DBP levels in distributed supplies
Corrosion Control Analysis	Required at CDPH Discretion	Assessment of corrosion potential of desalinated seawater (and blended supplies, as applicable) and measures to control corrosion in the distribution system and household plumbing
Algal Toxin Monitoring, Rejection, and Control Analysis	Required at CDPH Discretion	Assessment of algal toxin monitoring and control in the desalination plant
Endocrine Disruptor Monitoring, Rejection, and Control Analysis	Required at CDPH Discretion	Assessment of endocrine disruptor monitoring and control in the desalination plant
Seawater Desalination Integration Plan	Required at CDPH Discretion	Strategic approach for introducing desalinated seawater into the existing system, including blending strategy, public notification, and water quality monitoring (as applicable)
Volumetric Concentration Factor (VCF) Testing	Conditionally Required at CDPH Discretion	Site-specific assessment of the magnitude of particulate concentration associated with a membrane filtration system (i.e., microfiltration (MF) or ultrafiltration (UF))
Integrity Verification Program (IVP)	Conditionally Required at CDPH Discretion	Document describing the site-specific monitoring MF/UF system integrity, including integrity test procedures, calculations, as-needed corrective action, and reporting

### 2.1.3. Critical Issues

There are two critical issues associated with obtaining a DWSP, both of which are interconnected. First, depending on CDPH work backlog, review and approval of submittals may require more time than expected, potentially resulting in project delays. Consequently, it is important the CDPH be involved very early in the planning and



design process, and that the District Engineer is kept up-to-date on the project schedule. It is also important to receive CDPH feedback on the anticipated review duration for the various required submittals early in the process when developing a schedule. It is likewise important to clarify the required permit elements with the CDPH very early in the process, as well as to document these discussions. Because the CDPH has such broad discretionary authority over imposing permit requirements, it is essential to get formal CDPH input into the required elements at the project outset to avoid delays due to otherwise unanticipated and unarticulated studies, reports, and analyses.

#### **2.1.4. Permit Documents**

The following documents provide the forms, instructions, and additional guidance needed for this permit and are included in **Appendix 5:A**.

- DWSP Application Form
- DWSP Applicant Instructions
- TMF Assessment Form
- TMF Criteria
- Water Quality Emergency Notification Plan Form
- DWSAP Program overview and guidance document

## **2.2. National Pollution Discharge Elimination System (NPDES) Permit**

### **2.2.1. Permit Overview and Lead Agency**

The 1972 amendments to the Federal Water Pollution Control Act (known as the Clean Water Act or CWA) provide the statutory basis for the National Pollution Discharge Elimination System (NPDES) permit program and the basic structure for regulating the discharge of pollutants from point sources to waters of the United States. Section 402 requires the USEPA to develop and implement the NPDES program. The CWA gives the USEPA the authority to set effluent limits on an industry-wide basis and on a water quality basis, which ensures the protection of receiving waters. Brine and concentrate disposal from desalination plants are regulated as a point source of pollution through the NPDES Permit Program. The CWA allows the USEPA to delegate the authority to state governments, enabling states to perform many of the permitting, administrative, and enforcement aspects of the NPDES Program. In states that have been authorized to implement CWA programs, USEPA still retains oversight responsibilities.

In California, the NPDES is enforced by the Regional Water Quality Control Boards. NPDES permits almost exclusively regulate the discharge of pollutants from point sources, such as industrial effluent from an outfall pipe or stormwater from a municipal

storm system. This would also include concentrate discharges from the desalination plant. In addition, NPDES permits are also used to regulate intakes used by thermal power plants that use ocean water for cooling. A NPDES permit for these facilities must determine that these systems use the best technology available to minimize adverse impacts due to their location, design, construction, and capacity. Desalination facilities proposing to reuse existing infrastructure assets may therefore be subject to NPDES requirements associated with their intakes. A NPDES General Construction Permit is also required for stormwater runoff associated with construction activity. The permit(s) must be adopted by the State or Regional Water Quality Control Board (RWQCB) before any activity can occur.

In addition to the RWQCB, other Agencies play a consultation role providing feedback before issuance of the permit. The U.S. Fish & Wildlife Service (USFWS) provides consultation on impacts to fish and wildlife and the California Department of Fish and Game (CDFG) may also review the NPDES permit.

### **2.2.2. Permit Requirements and Process**

An application must be submitted to the appropriate Regional Water Board, in this case the Los Angeles Regional Water Quality Control Board (LARWQCB). The application must describe the wastes to be discharged, the setting for the discharge, and the method of treatment or containment. The LARWQCB determines if the discharge is to be permitted or prohibited and may request additional information. If a permit is needed and the application is complete, staff prepares a draft, sends out a notice for a 30-day public comment period and holds a public hearing. A majority vote of the Water Board members is required to adopt the permit. USEPA has 30 days to object to the draft permit. In a permit modification, only the conditions subject to change are reconsidered while all other permit conditions are allowed to remain in effect. Major permit modifications require public notice, while public notice associated with minor permit modifications would be at the discretion of the LARWCB.

The 2009 California Ocean Plan sets standards for the discharge of waste to ocean water in order to prevent degradation to marine species and to protect public health. There are currently no Ocean Plan Water Quality Objectives that apply specifically to brine waste discharges from desalination plants; however, an amendment to the Ocean Plan is in progress and is likely to contain a narrative objective for salinity as well as limits on impingement and entrainment from desalination intakes. Expert panels, studies, and public information workshops that will inform this amendment to the Ocean Plan have been ongoing. It is anticipated that the Ocean Plan amendment will be completed by late 2013. It is important to note that the final version of this amendment could significantly affect the permitting process that is described in this technical memorandum. In addition, the State Water Resources Control Board (SWRCB) is also attempting to collaborate with other applicable agencies (e.g., the California Coastal Commission (CCC), State Land

Commission (SLC), etc.) to establish more consistent state regulatory policies; although this effort is expected to result in some degree of streamlining, these resulting changes will likewise have some impact on the permitting process discussed in this document.

Finally, while there is some uncertainty as to what additional requirements will be in the Ocean Plan Amendments, the existing studies at the OWDDF appear to parallel the expert panels and topics of interest by the SWRCB. Previous experience has shown that good faith efforts to appropriately characterize water quality and associated impacts have been taken into consideration by the regulating entity.

**Table 2-2: Summary of NDPES Permit or Amendment Studies and Plans**

Study/Plan	Description	Notes
Intake Impingement and Entrainment Study	Determine the baseline conditions and potential impingement and entrainment impacts to marine organisms at the seawater intake for the desalination plant via sampling and monitoring.	This study is already being performed
Flow, Impingement and Entrainment Minimization Plan	Identification of mitigation measures to minimize the impacts to marine organisms at the desalination plant intake.	
Wetland Restoration Plan for Impingement and Entrainment Mitigation	Identification and implementation of one or more activities which preserve, restore, and enhance existing wetlands, lagoons or other high-productivity near-shore coastal areas located in the vicinity of the project site.	This approach may change pending adoption of the SWRCB Desalination Policy.
Hydrodynamic Modeling of Desalination Plant Discharge	Investigate the potential impact of hypersaline desalination plant discharge via an outfall at the project site	
Characterization of Desalination Plant Discharge	Determine compliance requirements with Numeric Water Quality Objectives of 2009 California Ocean Plan	
Whole Effluent Toxicity Study of Desalination Plant Discharge	Determine whether discharge from the desalination plant will disrupt the integrity of the receiving ecosystem	Existing study is being completed at the OWDDF. Expected completion - Fall 2012.

Study/Plan	Description	Notes
Discharge Salinity Tolerance Investigation	Predict the salinity range of the discharge (including the R.O. concentrate), evaluate if the salinity will impact biological resources, and evaluate mitigation of these impacts	Existing study is being completed at the OWDDF. Expected completion - Fall 2012.
Desalination Plant Discharge Monitoring Plan	Establish monitoring and reporting requirements	

In addition to the discharge permit, the following are steps needed for the NPDES General Construction Permit for stormwater runoff associated with construction activity:

- Compile data on content and anticipated rate of discharge
- Submit a Notice of Intent (NOI)
- Prepare a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should specify best management practices (BMPs) and pollution prevention monitoring
- Implement monitoring plan with monthly reports to RWQCB
  - Submit a Notice of Termination upon completion of the project

**2.2.3. Critical Issues**

Salinity issues may become a key point of discussion if there are limited dilution opportunities due to low or infrequent flows. The level of local mixing, dispersion, and dilution and the presence of any special status species should be understood in order to better facilitate discussions with the LARWQCB. It will be important to ensure that concentration based limits or biomonitoring are set at appropriate locations that are reflective of coastal conditions (rather than in concentrated locations such as the inside of the discharge pipe).

**2.2.4. Permit Documents**

The following documents provide the forms, instructions, and additional guidance needed for this permit and are included in **Appendix 5:A**.

- Federal National Pollutant Discharge Elimination System (NPDES) permit application form
- RWQCB Permit Application Form 200
- Certification Requirement For Application
- Permit Writer's Manual

- Notice of Intent Form
  - Notice of Intent Instructions

## **2.3. Coastal Development Permit / Local Program / Harbor Access Permits**

### **2.3.1. Permit Overview and Lead Agency**

The California Coastal Act (CCA) was enacted by the Legislature in 1976 to ensure long-term protection of the State's 1,100 miles of coastline. The CCA includes policies related to the following:

- Protection and expansion of public access to the shoreline
- Protection, enhancement, and restoration of important habitats and biological communities
- Protection of areas of the coast used for priority purposes, such as coastal recreation, coastal agriculture, and others
- Preventing sprawl
- Providing public education about the coast and coastal issues
- Establishing local controls for coastal development

The CCC is charged with implementing the CCA in the context of these policies. As a result, the CCC has authority to approve all proposed development within the Coastal Zone, an area encompassing the coastline and spanning a distance of three miles offshore and up to five miles inland. In order to facilitate the project review and approval process, proponents must apply for a Coastal Development Permit (CDP). Although in some cases coastal municipalities are empowered with development control authority through pre-approved Local Development Programs that are consistent with the CCA, the CCC retains ultimate approval authority over all major public works projects, which includes seawater desalination plants. The City of El Segundo and City of Redondo Beach have Local Coastal Programs, including a Coastal Zone Specific Plan which provides detailed land use proposals as well as ordinances for the City's coastal zone. Therefore, City of El Segundo and City of Redondo Beach would complete its permit review separate from any review by the Coastal Commission, although the processes may be coordinated and generally require similar information.

Because the CCC takes into account approvals granted by other agencies, along with the corresponding application forms and supporting materials, the CDP is typically one of the last permits awarded to any project. Accordingly, the CCC often conducts reviews in conjunction with other agencies, such as the California Department of Fish and Game, the United States Fish and Wildlife Service, the Regional Water Quality Control Board,

etc. (Note that some permits cannot precede the CDP. For example, the Domestic Water Supply Permit issued by the CDPH cannot be issued until the desalination plant concept and detailed design are nearly complete, steps which would not occur unless the project was previously approved by the CCC.)

### 2.3.2. Permit Requirements and Process

Project proponents must complete the CDP Application Form, which stipulates specific information that must be provided in conjunction with the permit application, including: site development details, location, adjacent land use, site maps, the presence of historic and/or cultural resources. Most of this information is provided directly on the application form in responses to short-answer questions, many of which are Yes/No boxes. A number of attachments are also specifically required by the application form, as summarized in **Table 2-3**. Additional details on the requirements for each of the items listed in the table are included on the application form.

**Table 2-3: Summary of Requirements CDP Application Attachments**

No.	Item
1	Proof of applicants legal interest in the property
2	Assessor’s parcel map
3	Copies required local approvals
4	Stamped envelopes addressed to each property owner and occupant of property situated within 100 feet of the property lines of the project site (excluding roads), along with a list containing the names, addresses and assessor’s parcel numbers of same.
5	Stamped, addressed envelopes and a list of names and addresses of all other parties known to the applicant to be interested in the proposed development
6	A vicinity or location map with the project site clearly marked
7	Copies of plans drawn to scale, including (as applicable): 1.Site plans 2.Floor plans 3.Building elevations 4.Grading, drainage, and erosion control plans 5.Landscape plans 6.Septic system plans
8	If <i>septic systems</i> are proposed: Evidence of County or Regional Water Quality Control Board Approval If <i>water wells</i> are proposed: Evidence of County review and approval

No.	Item
9	A copy of any Draft or Final Negative Declaration, Environmental Impact Report (EIR), or Environmental Impact Statement (EIS) prepared for the project, including comments and responses
10	Verification of all other permits, permission, or approvals either applied for, or granted by, any public agency; examples include (but are not limited to) the following: 7. California Department of Fish and Game 8. State Lands Commission 9. Army Corps of Engineers 10. U.S. Coast Guard
11	Geology and soils report (as applicable), including maps

In addition to the items specified in the application form, the instructions also note that additional materials may be required in conjunction with the review process. Because CDP reviews are site-specific, the CCC has broad discretion to request supporting information, primarily examining four general project aspects in keeping with its mandate: 1) environmental; 2) technological; 3) social; and 4) economic. Therefore, although there are no prescribed supplemental materials for seawater desalination projects, the information and studies likely to be required can be summarized based on prior CCC approvals of similar projects in *Desalination and the California Coastal Act*, as follows:

- Hazardous chemical use
- Growth inducement potential
- Intake alternatives analysis
- Impingement and entrainment study
- Impingement and entrainment minimization plan (based on study results)
- Mitigation plan for impingement / entrainment and other environmental impacts
- Concentrate discharge study and alternatives analysis
- Plan for minimizing impact of concentrate discharge on marine life (based on study results)
- Energy requirements
- Energy minimization plan
- Greenhouse gas minimization and mitigation plan
- Water supply alternatives analysis, including:

- Conservation (mandatory measures, voluntary measures, market-based incentives, etc.)
- Recycled water
- Reallocating existing supplies
- Treatment technology alternatives analysis, including an examination of:
  - Chemical use
  - Energy consumption
  - Emissions
  - Footprint

### **2.3.3. Critical Issues**

One of the CCC’s most significant concerns associated with seawater desalination are impingement / entrainment of marine life. Thus, the CCC prefers lower impact intake alternatives that minimize impingement and entrainment, such as beach wells and infiltration galleries. Consequently, it is vital that the CDP application for any project incorporating an open-ocean intake (either dedicated or shared) includes a detailed study with clear justification to articulate the infeasibility of lower impact intake approaches. Another primary CCC concern is the growth-inducement potential of seawater desalination. Therefore, it is likewise critical that the CDP application include a detailed study to demonstrate that water supply augmentation alternatives that do not utilize the development of a new source (e.g., conservation or reuse) are insufficient to meet projected demand.

Another critical issue is the timely and complete disclosure of requested information. The CCC staff have been openly critical of other seawater desalination project proponents that it perceives as not having been fully forthcoming in a timely manner, attributing significant permit evaluation and approval delays to this disclosure issue (whether fairly or not). Thus, it is important to meet CCC staff early in the permitting process to describe the project concept and get a documented list of site-specific information and studies that the CCC expects to be provided in conjunction with the CDP application. Any subsequent questions posed by the CCC after the CDP application has been submitted should be expediently and thoroughly addressed to avoid scheduling delays.

### **2.3.4. Permit Documents**

The following documents provide the forms, instructions, and additional guidance needed for this permit and are included in **Appendix 5:A**.

- CDP Instructions and Application Form



- Seawater Desalination and the Coastal Development Act (March 2004)

## 2.4. Permit to Construct/Operate

### 2.4.1. Permit Overview and Lead Agency

The South Coast Air Quality Management District (SCAQMD) permitting program implements the requirements of the federal and state Clean Air Act (CAA), the Air Quality Management Plan (AQMP), and air quality rules and regulations by specifying operating and compliance requirements for stationary sources that emit air contaminants. Examples of equipment for the full-scale facility that could potentially require an SCAQMD Permit are pumps and back-up generators. To comply with federal and state CAA requirements, all major and non-major sources in the Basin are subject to “no net emissions increase” and source-specific, prohibitory and toxics rules (federal, state, and local). A permit to construct is required prior to installation of new or relocated equipment or modification (both physical modification and change of operating conditions) of existing equipment. Once a piece of equipment is installed, modified and/or operated, SCAQMD processes the application for a Permit to Operate.

### 2.4.2. Permit Requirements and Process

Applications for a permit to construct new or relocated equipment as well as alteration (both physical modification and change of operating conditions) of existing equipment typically receive a high priority for processing. The application will be reviewed to determine whether proposed equipment will be built and operated consistent with AQMD regulations and policies. For equipment that is installed, the permit to operate application may act as a temporary permit until a final one is processed. After construction, AQMD will inspect the equipment to verify that it has been built and installed as required by the Permit to Construct. Once they have confirmed that the equipment operates in compliance with AQMD rules and regulations, the permit to operate is issued. Public notification is also required for facilities that have risks or emissions that exceeding specified thresholds or for equipment located within 1,000 feet of a school. Notices must be distributed to the communities near the project and parents of children attending nearby schools and are subject to a 30-day public comment period.

Rule 1401 specifies limits for maximum individual cancer risk (MICR), cancer burden, and noncancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units which emit specifically listed toxic air contaminants. There is also a requirement to use Best Available Control Technology (BACT) for such sources.

**Table 2-4** shows the categories that are reviewed when evaluating the permit and supporting information that could help facilitate discussions with and permit review by SCAQMD.

**Table 2-4: Summary of AQMD Permit Review Elements**

Permit Review Elements	Supporting Information
Permit History	
Equipment Description	Conceptual Design of Air Emissions Source
CEQA Analysis	CEQA Documentation
Emission Control Description	Energy Minimization and Greenhouse Gas Reduction Mitigation Plan
Emission Calculations	Calculation of Controlled and Uncontrolled Emissions for VOC, NO <sub>x</sub> , SO <sub>x</sub> , CO, PM10
Rules Evaluation	A. Map showing proximity to nearest school B. Modeling (if emissions are higher than screening values) C. Risk Assessment for Toxic Air Contaminants

### 2.4.3. Critical Issues

The following documents provide the forms, instructions, and additional guidance needed for this permit and are included in **Appendix 5:A**.

- Application Form for Permit or Plan Approval (Form 400-A)
- Form 400-A Instructions
- California Environmental Quality Act (CEQA) Applicability (Form 400-CEQA)
- Form 400-CEQA Instructions
- Plot Plan and Stack Information Form (Form 400-PS)
- General Information Summary (Form 400-E-GI)
- Risk Assessment Procedures
- SCAQMD Tools (Links for models and Calculator)

## 2.5. Clean Water Act (CWA) Section 404 Permit

### 2.5.1. Permit Overview and Lead Agency

The Clean Water Act was passed by Congress in 1977, establishing the basic framework for regulating discharges from navigable waters of the United States, which includes both the ocean and all wetlands. Section 404 of the CWA pertains to the discharge of dredged or fill material. For a seawater desalination plant, a Section 404 permit would be required for any offshore intake and/or outfall, along with all associated offshore

infrastructure. The Act authorizes the United States Army Corps of Engineers (ACOE) with issuing permits for these activities.

A Section 404 permit may be either “individual” or “general,” with the latter applicable to more minor projects with minimal anticipated impact. The type of permit pertaining to a specific project is determined in consultation with the ACOE prior to filing a application form. For individual permits, the ACOE must notify the applicant within 15 days if there are any deficiencies. Once the application is designated as complete, the ACOE must issue a public notice to this effect, allowing 30 days to receive any comments. A general permit may be either “regional” or “nationwide,” and in both cases the approval process is more streamlined (both in terms of paperwork and time) than for individual permits. A permit application form may not be required in conjunction with a general permit.

The US Environmental Protection Agency (USEPA) develops the requirements against which a Section 404 permit is reviewed, and the CWA also authorizes the USEPA to veto any permit issued by ACOE if it believes the proposed activities will have an unacceptable effect on municipal water supplies, shellfish beds and fisheries, wildlife, or recreational areas. In the course of reviewing a Section 404 permit, the ACOE may consult with the following:

- US Fish and Wildlife Service
- National Marine Fisheries Service
- Regional Water Quality Control Board
- California Department of Fish and Game
- US Coast Guard

Additional discussion of consultation requirements can be found in Section 2.7 below.

### **2.5.2. Permit Requirements and Process**

Rivers and Harbors Appropriation Act (RHAA) Section 10 (discussed in Section 2.7, below) and CWA Section 404 permits are similar. A single application process and corresponding form is used for both permits, and the ACOE conducts projects reviews for both permits in parallel. However, different supplement information may be required for each respective permit.

An initial consultation with the ACOE is required to determine whether the permit for the proposed project will be individual or general. Individual and some general permits require the project proponent to submit Engineering Form 4345 – Application for Department of the Army Permit. In conjunction with this application, illustrations, maps, and/or drawings are required to properly depict the project for ACOE review. In addition

to the specific details about the project required in the application form (e.g., description of the work, quantities of dredge and/or fill material, etc.), the ACOE has the discretion require additional project information in order to designate the application “complete,” and therefore sufficient for review. This information generally includes demonstration of the following, in accordance with USEPA guidelines:

- Avoidance of wetlands impacts, where practical
- Minimization of potential impact to wetlands
- Compensation for any unavoidable impacts on wetlands via activities to restore or create wetlands

### **2.5.3. Critical Issues**

As noted above, prior to submitting an application, an initial consultation with the ACOE is necessary to determine whether an individual or general is required. Consequently, it is imperative that the concept for the intake and outfall (as well as any other offshore infrastructure associated with the seawater desalination project) be well-defined prior to engaging the ACOE. This is also critical for the application process, in which the ACOE will require detailed information about the project in order to designate the application as complete (a prerequisite for review). Thus, having a well-defined concept for intake and outfall prior to engaging the ACOE is essential for facilitating the permitting process. Note that the initial consultation can also be used to confirm in advance the supplemental information that is likely to be required by the ACOE.

### **2.5.4. Permit Documents**

The following documents provide the forms, instructions, and additional guidance needed for this permit and are included in **Appendix 5:A**.

- Engineering Form 4345 – Application for Department of the Army Permit

## **2.6. CWA Section 401 Water Quality Certification**

### **2.6.1. Permit Overview and Lead Agency**

Section 401 of the CWA requires that activities permitted under Section 404 meet state water quality standards. The LARWQCB is responsible for issuing Water Quality Certifications for discharges requiring ACOE Section 404 permits for fill and dredge discharges. “Fill” includes intake or outfall pipelines, beach wells, transmission pipelines, or other similar structures. Issuance of a certification means that the LARWQCB anticipates that the applicant's project will comply with state water quality standards and other aquatic resource protection requirements under LARWQCB’s authority. The Section 401 Water Quality Certification can cover both the construction and operation of the proposed project. Conditions of the 401 Certification become conditions of the Federal permit or license.

Obtaining a Section 401 Water Quality Certification is a prerequisite to receiving a Section 404 permit. The application processes should be completed concurrently.

### **2.6.2. Permit Requirements and Process**

An application for a Section 401 Water Quality Certification must provide sufficient information for LARWQCB to determine whether the project complies with State water quality standards and will not result in adverse impacts to waters of the State. The application includes detailed information on the type, amount, and locations of materials to be discharged and/or dredged. A Mitigation Plan must be included in the application package if the project involves temporary or permanent impacts to wetlands and/or other waters of the State. The Mitigation Plan should describe the project’s physical and biological impacts, mitigation goals, a mitigation work plan, a management and maintenance plan, success criteria and performance indicators, a monitoring plan, site protection measures, and financial assurance. Other information required in the application package includes site maps depicting watershed boundaries, wetland delineations, endangered species surveys, and CEQA documentation. The LARWQCB may also require additional information, such as hydrologic and geologic studies, groundwater studies, and soil sampling reports.

The review period, as required by 33 CFR 325.2 (b)(ii), is 60 days from when the LARWQCB receives a complete application package; however, the 60-day review period can be extended up to one year under special circumstances. Additionally, the review process can be delayed if the LARWQCB determines during its initial review that an application is incomplete and that additional information or studies are required.

**Table 2-5** summarizes the elements of a Section 401 Water Quality Certification application package.

**Table 2-5: Summary of Section 401 Water Quality Certification Review Elements**

Permit Review Elements	Supporting Information
Applicant Information	
Project Information	Site and Watershed Boundary Map Stormwater Pollution Prevention Plan Wildlife and Endangered Species Surveys Wetland Delineations Hydrologic and Geologic studies Groundwater Studies Soil Sampling Reports
Dredge and Fill Information	Type and amount of material to be discharged/dredged, location(s), and surface area(s) affected
Mitigation	Flow, Impingement and Entrainment Minimization Plan Wetland Restoration Plan for Impingement and Entrainment Mitigation (Note: Extent of mitigation supporting information is unknown due to the SWRCB Desalination Policy)
CEQA	CEQA Documentation
Additional Information	List of required permits Draft or final permit documents Federal notifications for federal permits

### 2.6.3. Critical Issues

Timing is a key issue with the Section 401 Water Quality Certification. The Section 404 permit cannot be issued until the Section 401 certification has been received, and the Section 401 certification cannot be issued until the CEQA documentation is complete. Early coordination with the LARWQCB to determine which documents need to be included in the application package is recommended to prevent delays associated with the application being deemed incomplete during review.

### 2.6.4. Permit Documents

The following documents provide the forms, instructions, and additional guidance needed for this permit and are included in **Appendix 5:A**.

- Section 401 Water Quality Certification Application Form
- Wetland, Riparian, and Eelgrass Project Data Form

## **2.7. Rivers and Harbors Appropriation Act (RHAA) Section 10 Permit**

### **2.7.1. Permit Overview and Lead Agency**

Section 10 of the Rivers and Harbors Appropriation Act 1899 requires authorization from the ACOE for any project affecting the navigable waters of the United States (including the ocean) as follows:

- Construction (either in or over)
- Excavation / dredging of materials
- Deposition of materials
- Obstruction
- Alteration

Thus, any seawater desalination plant involving marine construction (e.g., intake and/or outfall and related infrastructure) is subject to a RHAA Section 10 permit.

A Section 10 permit may be either “individual” or “general,” with the latter applicable to more minor projects with minimal anticipated impact. The type of permit pertaining to a specific project is determined in consultation with the ACOE prior to filing an application form. For individual permits, the ACOE must notify the applicant within 15 days if there are any deficiencies. Once the application is designated as complete, the ACOE must issue a public notice to this effect, allowing 30 days to receive any comments. A general permit may be either “regional” or “nationwide,” and in both cases the approval process is more streamlined (both in terms of paperwork and time) than for individual permits. A permit application form may not be required in conjunction with a general permit. In the course of reviewing a Section 10 permit, the ACOE may consult with the following:

- US Fish and Wildlife Service
- National Marine Fisheries Service
- Regional Water Quality Control Board of jurisdiction
- California Department of Fish and Game
- US Coast Guard

### **2.7.2. Permit Requirements and Process**

RHAA Section 10 and CWA Section 404 permits (discussed in Section 2.5, above) are similar. A single application process and corresponding form is used for both permits, and the ACOE conducts projects reviews for both permits in parallel. However, different supplement information may be required for each respective permit. In addition, unlike a

CWA Section 404 permit, the USEPA does not have veto authority over an ACOE-issued RHA Section 10 permit.

An initial consultation with the ACOE is required to determine whether the permit for the proposed project will be individual or general. Individual and some general permits require the project proponent to submit Engineering Form 4345 – Application for Department of the Army Permit. In conjunction with this application, illustrations, maps, and/or drawings are required to properly depict the project for ACOE review. In addition to the specific details about the project required in the application form (e.g., description of the work, quantities of dredge and/or fill material, etc.), the ACOE has the discretion to require additional project information in order to designate the application “complete,” and therefore sufficient for review. This information generally includes details in regard to the applicable structure(s), as well as the construction methods.

### **2.7.3. Critical Issues**

As noted above, prior to submitting an application, an initial consultation with the ACOE is necessary to determine whether an individual or general is required. Consequently, it is imperative that the concept for the intake and outfall (as well as any other offshore infrastructure associated with the seawater desalination project) be well-defined prior to engaging the ACOE. This is also critical for the application process, in which the ACOE will require detailed information about the project in order to designate the application as complete (a prerequisite for review). Thus, having a well-defined concept for intake and outfall prior to engaging the ACOE is essential for facilitating the permitting process. Note that the initial consultation can also be used to confirm in advance the supplemental information that is likely to be required by the ACOE.

### **2.7.4. Permit Documents**

The following documents provide the forms, instructions, and additional guidance needed for this permit and are included in **Appendix 5:A**.

- Engineering Form 4345 – Application for Department of the Army Permit

## **2.8. Incidental Take Permit and Incidental Take Statement**

### **2.8.1. Permit Overview and Lead Agency**

An Incidental Take Permit is required for activity where a State-listed candidate, threatened, or endangered species under the California Endangered Species Act (ESA) may be present in the project area and a State agency is acting as the lead agency for CEQA compliance. Sections 2081(b) and (c) of the California ESA allow the California Department of Fish and Game (CDFG) to issue an incidental take permit for a State listed threatened and endangered species only if specific criteria are met, including 1) the authorized take is incidental to an otherwise lawful activity; 2) the impacts of the



authorized take are minimized and fully mitigated; 3) the measures required to minimize and mitigate the impacts of the authorized take are roughly proportional in extent to the impact, maintain the applicant's objectives, and are capable of successful implementation; 4) adequate funding is provided to implement the minimization and mitigation measures; and 5) Issuance of the permit will not jeopardize the continued existence of a State-listed species. The CDFG maintains a list of threatened and endangered species designated under California Fish and Game Code 2070.

In addition to the State ESA, the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) and the U.S. Fish & Wildlife Service (USFWS) share responsibility for implementing the Federal ESA. Generally, the USFWS is responsible for terrestrial and freshwater aquatic species while NMFS is responsible for listed marine mammals, anadromous fish, and other living marine resources. NMFS also issues permits for incidental taking of listed fish species during other activities such as state-run hatchery operations and commercial or recreational fisheries. In some cases these responsibilities overlap and the agencies work closely together.

Federal agencies must consult with the U.S. Fish & Wildlife Service (USFWS) to determine the potential for effects to protected species. An Incidental Take Statement in accordance with Section 7 of the Endangered Species Act (ESA) may be required. Similar to the CDFG, the USFWS maintains a list of endangered species and threatened species and may use their existing authority to conserve threatened and endangered species and ensure that proposed actions do not jeopardize listed species or destroy or adversely modify critical habitat.

While Federal agencies do not have to abide by state legislation or policies, such as the SWRCB desalination policy, they generally acknowledge them and attempt to arrive at non-conflicting solutions.

### **2.8.2. Permit Requirements and Process**

The Incidental Take Permit process is normally initiated in the Region where the permitted activity will take place by contacting the appropriate Regional Office (Region 5). Measures to minimize the take of species covered by the permit (Covered Species) and to mitigate the impacts caused by the take will be set forth in one or more attachments to the permit. The following information may be needed to support the application and aid in discussions and coordination with CDFG staff:

- Review and Analysis of Incidental Take Permit Compliance History for Existing Intake
- Intake Impingement and Entrainment Study

- Flow, Impingement and Entrainment Minimization Plan (Mitigation Plan and Habitat Conservation Plan )

For the Incidental Take Statement, a Section 7 consultation is an element of the ACOE Section 404 permitting process; therefore, an Incidental Take Statement would be issued under the Section 7 consultation process for this project. Coordination with the NMFS under Section 104, Marine Mammal Protection Act, and Section 305(b) Magnuson-Stevens Fishery Conservation and Management Act would take place simultaneously with the Section 7 consultation.

When non-Federal entities such as states, counties, local governments, and private landowners wish to conduct an otherwise lawful activity that might incidentally, but not intentionally, take a listed species, an incidental take permit (ESA Section 10(a)(1)(B)) must first be obtained from NOAA NMFS. To receive a permit, the applicant must submit a Habitat Conservation Plan (HCP) that meets the criteria included in the ESA and its implementing regulations. The HCP process is designed to address non-Federal land or water use or development activities that do not involve a Federal action that is subject to Section 7 consultation. The USFWS can require a desalination plant to prepare a formal biological opinion if the plant operation may impact endangered species. It will be important to identify any potentially affected federally listed species (**Table 2-6**). Discussions held during the Section 7 consultation should also address the need for an Incidental Take Permit (ITP) under the Migratory Bird Treaty Act (MBTA).

**Table 2-6: Potentially Impacted Federal and State Listed Species for Redondo Beach or El Segundo**

Scientific Name	Common Name	Federal Status	California Status	Department of Fish and Game Status <sup>1</sup>	California Native Plant Society List <sup>1</sup>
<u>Wildlife</u>					
<i>Agelaius tricolor</i>	tricolored blackbird	None	None	SSC	
<i>Anniella pulchra pulchra</i>	silvery legless lizard	None	None	SSC	
<i>Athene cunicularia</i>	burrowing owl	None	None	SSC	
<i>Buteo regalis</i>	ferruginous hawk	None	None	WL	
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	Threatened	None	SSC	
<i>Chelonia mydas</i>	green turtle	Threatened	None		
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	Candidate	Endangered		
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	Endangered	Endangered		
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	Endangered	Endangered		
<i>Emys marmorata</i>	western pond turtle	None	None	SSC	
<i>Eumops perotis californicus</i>	western mastiff bat	None	None	SSC	

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Scientific Name	Common Name	Federal Status	California Status	Department of Fish and Game Status <sup>1</sup>	California Native Plant Society List <sup>1</sup>
<i>Glaucopsyche lygdamus palosverdesensis</i>	Palos Verdes blue butterfly	Endangered	None		
<i>Lasiurus xanthinus</i>	western yellow bat	None	None	SSC	
<i>Microtus californicus stephensi</i>	south coast marsh vole	None	None	SSC	
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	None	None	SSC	
<i>Nyctinomops femorosaccus</i>	pocketed free-tailed bat	None	None	SSC	
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	None	Endangered		
<i>Pelecanus occidentalis californicus</i>	California brown pelican	Delisted	Delisted	FP	
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse	Endangered	None	SSC	
<i>Phrynosoma blainvillii</i>	coast horned lizard	None	None	SSC	
<i>Polioptila californica californica</i>	coastal California gnatcatcher	Threatened	None	SSC	
<i>Rallus longirostris levipes</i>	light-footed clapper rail	Endangered	Endangered	FP	
<i>Riparia riparia</i>	bank swallow	None	Threatened		
<i>Rynchops niger</i>	black skimmer	None	None	SSC	
<i>Siphateles bicolor mohavensis</i>	Mohave tui chub	Endangered	Endangered	FP	
<i>Sorex ornatus salicornicus</i>	southern California saltmarsh shrew	None	None	SSC	
<i>Spea hammondi</i>	western spadefoot	None	None	SSC	
<i>Sternula antillarum brownii</i>	California least tern	Endangered	Endangered	FP	
<i>Taxidea taxus</i>	American badger	None	None	SSC	
<u>Plants</u>					
<i>Aphanisma blitoides</i>	aphanisma	None	None		1B.2
<i>Astragalus pycnostachyus var. lanosissimus</i>	Ventura Marsh milk-vetch	Endangered	Endangered		1B.1
<i>Astragalus tener var. titi</i>	coastal dunes milk-vetch	Endangered	Endangered		1B.1
<i>Atriplex coulteri</i>	Coulter's saltbush	None	None		1B.2
<i>Atriplex pacifica</i>	South Coast saltscale	None	None		1B.2
<i>Atriplex parishii</i>	Parish's brittlescale	None	None		1B.1
<i>Atriplex serenana var. davidsonii</i>	Davidson's saltscale	None	None		1B.2
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	None	None		1B.2
<i>Calochortus weedii var. intermedius</i>	intermediate mariposa-lily	None	None		1B.2
<i>Calystegia sepium ssp. binghamiae</i>	Santa Barbara morning-glory	None	None		1B.1

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Scientific Name	Common Name	Federal Status	California Status	Department of Fish and Game Status <sup>1</sup>	California Native Plant Society List <sup>1</sup>
<i>Centromadia parryi</i> ssp. <i>australis</i>	southern tarplant	None	None		1B.1
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	salt marsh bird's-beak	Endangered	Endangered		1B.2
<i>Crossosoma californicum</i>	Catalina crossosoma	None	None		1B.2
<i>Dudleya virens</i> ssp. <i>insularis</i>	island green dudleya	None	None		1B.2
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	None	None		1B.1
<i>Lycium brevipes</i> var. <i>hassei</i>	Santa Catalina Island desert-thorn	None	None		1B.1
<i>Nama stenocarpum</i>	mud nama	None	None		2.2
<i>Nasturtium gambelii</i>	Gambel's water cress	Endangered	Threatened		1B.1
<i>Navarretia fossalis</i>	spreading navarretia	Threatened	None		1B.1
<i>Navarretia prostrata</i>	prostrate vernal pool navarretia	None	None		1B.1
<i>Nemacaulis denudata</i> var. <i>denudata</i>	coast woolly-heads	None	None		1B.2
<i>Orcuttia californica</i>	California Orcutt grass	Endangered	Endangered		1B.1
<i>Pentachaeta lyonii</i>	Lyon's pentachaeta	Endangered	Endangered		1B.1
<i>Phacelia stellaris</i>	Brand's star phacelia	Candidate	None		1B.1
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	None	None		1B.2
<i>Sidalcea neomexicana</i>	Salt Spring checkerbloom	None	None		2.2
<i>Suaeda esteroa</i>	estuary seablite	None	None		1B.2
<i>Symphotrichum defoliatum</i>	San Bernardino aster	None	None		1B.2

<sup>1</sup> SCC = Species of Special Concern; WL = Watch List; FP = Federally Protected; 1B.1 = Plants Rare, Threatened, or Endangered in California and Elsewhere; Seriously threatened in California; 1B.2 =Plants Rare, Threatened, or Endangered in California and Elsewhere, Fairly threatened in California; 2.2 = Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere; Fairly threatened in California

The first step in the Section 7 consultation process is to identify federally listed species potentially affected by the project and to conduct an informal consultation with the NMFS to allow for early consideration of listed species concerns. If it is determined that a federally listed species or critical habitat may be affected by the project, the lead agency must prepare a Biological Assessment within 180 days for review by the NMFS. NMFS will review of the Biological Assessment and will respond within 30 days with its opinion as to whether the project is likely to adversely affect species or critical habitat. If it is determined that the project may adversely affect listed species or critical habitat, a formal consultation is required.

Formal consultations determine whether a proposed agency action(s) is likely to jeopardize the continued existence of a listed species or destroy or adversely modify

critical habitat. They also determine the amount or extent of anticipated incidental take in an incidental take statement. To initiate the formal consultation process, the lead agency (ACOE) would request initiation of the formal consultation process and would submit the following information to the NMFS:

- A description of the action being considered
- A description of the specific area that may be affected by the action;
- A description of any listed species or critical habitat that may be affected by the action;
- A description of the manner in which the action may affect any listed species or critical habitat, and an analysis of any cumulative effects;
- Relevant reports, including any environmental impact statements, environmental assessments, biological assessment or other analyses prepared on the project; and
- Any other relevant studies or other information available on the action, the affected listed species, or critical habitat.

Within 90 days of a complete submittal, the NMFS will review the information and will formulate a Biological Opinion and incidental take statement in conjunction with the lead agency and applicant. A Biological Opinion includes 1) the opinion of the NMFS as to whether or not the project is likely to jeopardize the continued existence of listed species or result in destruction of critical habitat; 2) a summary of information on which the opinion is based; and 3) a detailed discussion of the effects of the action on listed species or designated critical habitat. If it is determined under the Biological Opinion that the project is likely to adversely affect listed species or critical habitat, a formal Section 7 consultation is required in order to obtain an Incidental Take Statement.

The lead agency and applicant will review the draft Biological Opinion, and within 45 days of completion of their review the NMFS will deliver a final Biological Opinion and Incidental Take Statement to the lead agency, concluding the formal consultation process.

### **2.8.3. Critical Issues**

Consultation under section 7 of the ESA is the Federal agency's responsibility (ACOE), not the applicant's. In the case of issuance of a Section 404 permit, ACOE must conduct an interagency consultation to ensure compliance of permit issuance with the provisions of section 7. However, although the consultation responsibilities is not the permit applicants, the applicant should help ensure that those considerations required of the NMFS by Section 7 have been addressed in the application and associated documentation. Additionally, early consultation with all involved agencies is recommended, as incomplete information will delay the process. It is recommended that

the process be initiated with an informal consultation at least one year before the Incidental Take Statement is needed.

#### **2.8.4. Permit Documents**

The following documents provide the forms, instructions, and additional guidance needed for this permit and are included in **Appendix 5:A**.

- ESA Instructions
- Endangered Species Consultation Handbook

### **2.9. Encroachment Permits**

#### **2.9.1. Permit Overview and Lead Agencies**

An encroachment permit must be obtained for any proposed activities related to the placement of encroachments such as pipe, pipeline, fencing, or structures within, under, or over the a public right-of-way or State highway right-of-way. As discussed in the *Project Entitlement Acquisition Plan (PEAP)*, a number of cities may be impacted by the construction of conveyance facilities from the plant site to the distribution system, based upon which plant site and conveyance alternative are selected.

For the NRG site, the following local entities could be impacted:

- El Segundo
- Manhattan Beach
- Redondo Beach
- Lawndale
- Hawthorne
- Gardena
- Caltrans
- LA County Department of Public Works (LACDPW)

For the AES (Redondo Beach) site, the following local entities could be impacted:

- Torrance
- Redondo Beach
- Hermosa Beach
- Manhattan Beach
- Lawndale

- Hawthorne
- Gardena
- Caltrans
- LACDPW

These cities typically require those encroachment permits, excavation permits, construction permits, and/or right-of way permits for construction, excavation, or encroachment in public right-of-ways. Encroachments include any obstruction, including pipe, placed in, along, under, over, or across a public right-of-way. The organization of these permits varies somewhat among the cities; however, the requirements are typically the same. Therefore, the discussion of these permits has been consolidated, and the permits are referred to as “encroachment permits” in this section.

A National Pollution Discharge Elimination System (NPDES) General Construction Permit is also required for stormwater runoff associated with construction activity. See Section 2.2 of this document for further information.

Each of the two potential project sites and associated conveyance facilities would require placement of pipeline within a State highway. Therefore, an encroachment permit must also be obtained from the California Department of Transportation (Caltrans) for any proposed activities related to the placement of encroachments such as pipe, pipeline, fencing, or structures within, under, or over the State highway right-of-way.

The California State Mining and Geology Board (SMGB) represents the State’s interest in the development, utilization and conservation of mineral resources; reclamation of mined lands; development of geologic and seismic hazard information. The Surface Mining and Reclamation Act of 1975 provides the State’s surface mining and reclamation policy with the regulation of surface mining operations to minimize environmental impacts and reclaim mined lands to a usable condition. The Act does not apply to onsite excavation and earthmoving activities that are an integral part of a construction project and are undertaken to prepare a site for construction of structures, landscaping, or other land improvements associated with those structures, including the related excavation, grading, compaction, or the creation of fills, road cuts, or embankments, provided that all required permits have for construction have been approved by a public agency and that the lead agency’s approval of the project included consideration of the onsite excavation and earthmoving activities.

Early coordination with the SMGB is recommended to determine with tunneling associated with conveyance facilities for the project would require any mitigation or reclamation actions under the Surface Mining and Reclamation Act.

### 2.9.2. Permit Requirements and Process

Encroachment permits are generally issued by the City Engineer or Public Works Director within the City’s discretion. To be eligible for an encroachment permit, projects must conform to the City’s Building Code, Municipal Code, and Standard Specifications and typically must not adversely affect the general plan of the City. Projects plans and specifications, along with a detailed description of work, are submitted to the City with the permit application, and are reviewed and approved by the City Engineer prior to issuance of a permit. Additionally, a copy of the contractor’s State license, City business license, and insurance certificate may be required. Projects must also comply with the City’s Traffic Control Provisions. Multiple application forms and project plan reviews may be required concurrently in cities where construction permits, encroachment permits, and right-of-way permits are processed separately.

Work performed under an encroachment permit must comply with all California/OSHA safety orders. Work must also comply with the CWA and NPDES requirements and to the selected Best Management Practices (BMP) plan. Trenches or excavation that are five feet or more in depth require a separate shoring permit from California/OSHA (State Division of Industrial Safety). For projects subject to NPDES requirements, a NPDES certification form may also need to be completed. The form states that a Notice of Intent has been filed with the SWRCB and that a Stormwater Pollution Prevention Plan has been completed, approved, and fully implemented to the satisfaction of the City Engineer.

**Table 2-7: Summary of Encroachment Permit Components**

Permit Component	Required	Description / Necessary Element
Sketch/Plans	Required	Sketch/Plans with a detailed description of work approved by the City Engineer
Business License	Required	Business license for City in which work is to be performed.
Contractor’s State License	Required	Valid and applicable Contractor’s State License
Liability Insurance	Required	Valid liability insurance covering General Liability of at least \$1,000,000 with the City additionally insured and named.
Current Worker’s Compensation Policy	Required	Current Worker's Compensation Policy, \$1,000,000.



Permit Component	Required	Description / Necessary Element
NPDES Certification	Required in Some Cities	For projects subject to NPDES requirements, a NPDES certification form may also need to be completed. The form states that a Notice of Intent has been filed with the SWRCB and that a Stormwater Pollution Prevention Plan has been completed, approved, and fully implemented to the satisfaction of the City Engineer.
California/OSHA Shoring Permit	Possibly	Trenches or excavation that are five feet or more in depth require a separate shoring permit from California/OSHA (State Division of Industrial Safety).

To obtain a permit from Caltrans, applicants must complete a Standard Encroachment Permit Application along with documentation and submit this information to the District Encroachment Permits Office (District 7 for Los Angeles). Caltrans is required to either approve or deny an Encroachment Permit Application within 60 calendar days, upon determination that the submittal is complete.

The Caltrans Standard Encroachment Permit Application (TR-0100) includes project information such as location and cost; impacts to environmental, cultural, and scenic resources; and prior approvals from other agencies. Applicants must complete and attach supporting documentation such as: plans, location map, environmental documentation, letter of authorization, surety bonds, liability insurance, etc. and submit them to the appropriate District 7 Encroachment Permits Office. The permit also requires that work be conducted in compliance with Caltrans' NPDES permit which includes the preparation and approval of a Storm Water Pollution Protection Plan. A summary of the information and reports that may be necessary to obtain Caltrans approval for an encroachment is provided in **Table 2-8**.

**Table 2-8: Summary of Caltrans Standard Encroachment Permit Components**

Permit Component	Description / Necessary Elements
Project Plans and Specifications	Complete sets of plans and any applicable specification, calculations, maps, etc. Application form also requires details such as highway number and postmile, location relative to nearest cross street, maximum depth, average depth, average width and length, and pipe material and diameter
Cost Estimate	Estimated cost for all work to be done within the State right-of-way, and funding sources
Environmental Impact Report	Environmental Impact Report and a copy of the Notice of Determination from other agency from which permit or approval was received. Application also requires indication of whether the project will cause a substantial change in the significance of a historical resource or removal or a scenic resource.
Area of Disturbance of Soil	If the project will require the disturbance of soil, application must include the area of disturbance of soil within and outside of the right-of-way in square footage and acres.
Storm Water Pollution Prevention Plan	If the project will require dewatering, application must include estimated volume per month and source (Storm Water or Non-Storm Water) and must indicate how any storm water or ground water will be disposed of from or near the limits of the proposed project.

### 2.9.3. Critical Issues

Timing is a critical issue in the encroachment permitting process. Encroachment permits are typically valid for a period of six months from the date with the permit was granted, and are void if not utilized within this period. A single extension of time, not to exceed six months, may be applied for and issued or denied by the director of public works. To satisfy NPDES certification requirements, a Notice of Intent must be filed with the SWRCB and a Stormwater Pollution Prevention Plan must be completed prior to the issuance of an encroachment permit.

As the Caltrans application relies on prior approval of an Environmental Impact Report from another agency, as well as completion of a Storm Water Pollution Prevention Plan, these documents will need to be completed prior to the permit application. The California Streets and Highways Code stipulates that an Encroachment Permit Application submittal is complete only when all other statutory requirements, including CEQA, have been complied with. While Caltrans is required to approve or deny a permit application submittal within 60 calendar days upon determination that the submittal is complete, it has the authority to determine what constitutes a complete submittal. Therefore, coordination with Caltrans throughout the application process to ensure that all requirements are met is recommended to prevent delays in the review process.

### **2.9.4. Permit Documents**

The following documents provide the forms, instructions, and additional guidance needed for this permit and are included in **Appendix 5:A**.

- City of El Segundo Encroachment Permit Conditions
- City of Gardena Encroachment Permit Application Form
- City of Gardena Application For Excavation – Construction Permit
- City of Lawndale Encroachment and Excavation Permit
- City of Manhattan Beach Construction and Landscaping on Public Property Booklet
- City of Manhattan Beach Encroachment Permit Application
- City of Redondo Beach Engineering Permit Guidelines
- City of Redondo Beach Engineering Permit Application
- City of Redondo Beach NPDES Certification Form
- LACDPW Construction and Encroachment Permit Requirements
- LACDPH Road Closure Permit Guidelines
- Caltrans Standard Encroachment Permit Application
- Caltrans Instructions for Completing the Standard Encroachment Permit Application

## **2.10. Right-of-way Permit / Land Use Lease**

### **2.10.1. Permit Overview and Lead Agency**

The California SLC has jurisdiction and management control over approximately four million acres of land underlying the State’s navigable and tidal waterways, including the State’s tide and submerged lands along the California’s 1,100 miles of coastline and offshore islands extending from the mean high tide line to three nautical miles offshore. The SLC holds these lands for the benefit of all the people of the State, subject to the Public Trust for water related commerce, navigation, fisheries, recreation, open space and other recognized Public Trust uses. Accordingly, the SLC maintains a multiple use management policy to assure the greatest possible public benefit is derived from these lands. A Right-of-Way Permit or Land Use Lease is required for issuance of a grant of right-of-way across state lands. Desalination facilities proposing to place new intakes or outfalls on state tidelands, or to change existing intakes or outfalls, will generally be required to obtain a lease modification from the CSLC.

Upon receipt of an inquiry about the proposed use of State lands, the SLC Title Unit reviews its files and information submitted to determine the extent of the State's property interest in the project site. If staff determines that the proposed project is within SLC jurisdiction, an application must be submitted. No project can proceed until the SLC has considered and taken action on the application. The issuance by the SLC of any lease, permit or other entitlement for use of State lands is reviewed for compliance with the provisions of the California Environmental Quality Act (CEQA). The SLC may also consult with California Department of Fish and Game in the review of lease application.

### **2.10.2. Permit Requirements and Process**

As discussed in the *Project Entitlement Acquisition Plan (PEAP)*, the preferred site for the seawater desalination plant at the El Segundo Power Generating Station is subject to an SLC lease for operating the existing intake and outfall. Thus, if this existing infrastructure is used in conjunction with the seawater desalination plant, there are several options for obtaining authorization from the SLC:

- Obtain a new lease
- Amend the current lease held by NRG (subject to agreement by the lessee)
- Sublease the use of the existing infrastructure from NRG

For any of these options, new SLC Application for Lease of State Lands is required. In conjunction with the application, the SLC requires a completed CEQA document and a Mitigation/Monitoring Program. After all of the required materials have been submitted, the SLC will notify the project proponent that the application is complete, initiating the formal review process.

### **2.10.3. Critical Issues**

No proposed project will be considered by the SLC until the requirements of the CEQA document have been satisfied. Therefore, it is critical to complete the CEQA process prior to applying for lease with the SLC. Local approvals (city or county) for the project must be received prior to consideration by the SLC. Letters of Concurrence or Biological Opinions from the USFWS or NMFS may also be required prior to consideration of an application. The wetland restoration plan and greenhouse gas monitoring program, if required, also need to be included with the application.

### **2.10.4. Permit Documents**

The following documents provide the forms, instructions, and additional guidance needed for this permit and are included in **Appendix 5:A**.

- Application for Lease of State Lands
- Application Guidelines Regarding Leasing of State Lands

## 2.11. Other

### 2.11.1. Waste Discharge Requirements

The Porter-Cologne Water Quality Control Act (California Water Code 13000, et seq) is the principal legislation for controlling storm water pollutants in California. The act requires development of basin plans for drainage basins within California. Each plan serves as a blueprint for protecting water quality within various watersheds. These basin plans are used in turn to identify more specific controls for discharges (e.g. wastewater treatment plant effluent, urban runoff, and agriculture drainage). Under the Porter-Cologne Act, specific controls are implemented through permits called Waste Discharge Requirements issued by the nine Regional Water Quality Control Boards (RWQCBs). The project site is included within the Water Quality Control Plan for the Los Angeles Basin and thus is subject to all applicable rules and regulations contained within the Water Quality Control Plan for the Los Angeles Basin.

### 2.11.2. National Historic Preservation Act (NHPA) Consultation

As discussed in the *Environmental Review Plan (ERP)*, The National Historic Preservation Act (NHPA) directed federal agencies to integrate historic preservation into all activities which either directly or indirectly involve land use decisions. The NHPA is administered by the National Park Service, the Advisory Council on Historic Preservation, State Historic Preservation Officers (California Department of Parks and Recreation Office of Historic Preservation), and each federal agency. Section 106 of the NHPA requires federal agencies to take into consideration the impact that an action may have on historic properties which are included on, or are eligible for inclusion on, the National Register of Historic Places. The Section 106 review process is usually carried out as part of a formal consultation with the State Historic Preservation Officer, the Advisory Council on Historic Preservation, and other parties, such as Indian tribes, that have knowledge of, or a particular interest in, historic resources in the area of undertaking. There are no specific times restrictions for the completion of this process. Once the State Historic Preservation Officer receives the appropriate documentation, they have 30 days to review and comment. If the Advisory Council on Historic Preservation is consulted, they have an additional 15 days. NHPA consultation is typically completed prior to or during the CEQA application process.

### 2.11.3. Lake or Streambed Alteration Agreement

The California Department of Fish and Game (CDFG) requires a streambed alteration agreement for activities within inland waters and within some areas of bays and estuaries. If CDFG determines that a proposed activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. The Lakebed or Streambed Alteration Agreement includes conditions necessary to protect those resources and must comply with the California Environmental Quality Act (CEQA). The entity may proceed with the activity in accordance with the agreement.

#### **2.11.4. Remedial Action Plan**

Existing hazardous materials contamination at a project site may require permits and/or approvals from the California Department of Toxic Substances Control (DTSC), the RWQCB, and/or the Local Enforcement Agency. Should contamination be present, the site must be remediated, and to the satisfaction of the DTSC, a Remedial Action Plan would be required and implemented for the proposed project. Should the site require “corrective action” (have contamination, either surface or groundwater, that exceeds a minimum action level), it may take two or more years to go through the DTSC site remediation and site clearance process.

#### **2.11.5. Review of Changes to Power Plants**

For desalination facilities proposing to locate at power plants, the California Energy Commission (CEC) is likely to review proposed changes to the power plant needed to accommodate the desalination facility. Some of those changes may require approval from the Energy Commission. The review may also evaluate the effects of the desalination facility on the power plant’s operations, its effect, if any, on the local facilities or regional transmission lines, and other aspects of the desalination facility’s impact on energy use.

Early consultation with the CEC is recommended to determine if they need to have a role in the project and, if so, what information and actions they will require. For example, a Post Certification Amendment might be needed to include the new desalination plant and associated operations on the power plant site. If the CEC determines that this amendment is appropriate, any required documentation would be submitted through the power plant owner.

While the California Public Utilities Commission (PUC) has authority over the electric rates of investor owned electric utilities, municipalities, water districts, and mutual water companies do not fall under the PUC’s jurisdiction.

## 3. Permitting Approach, Schedule, and Budget

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### 3.1. Permitting Approach

Both West Basin and the regulatory community have a common goal: To develop a long-term, sustainable, and reliable water supply through a project that is technologically and economically feasible, environmentally sound, and socially acceptable. Yet despite this shared vision, the permitting process can be daunting. In addition to the sheer number of coordination points, a complicating factor is that some agencies may wait for other agencies to review the permit before they will review or approve the permit, as in the case of the Coastal Development Permit (CDP) from the California Coastal Commission (CCC).

Each regulatory agency maintains various goals and objectives. Early and on-going consultation and support from these agencies is a fundamental requirement for project advancement.

In order to increase the potential for dialogue and productivity, initial scoping meetings with the various agencies should be considered. It is recommended to hold meetings with multiple agencies simultaneously, especially in situations where multiple agencies are consulting on the same permit.

It will be important to not only understand the critical elements, but also the level of detail desired for those elements. Often times, there is agreement on the type of information needed to support a project, but the parties involved may each have a different interpretation for burden of proof of that information, resulting in a bottleneck until these interpretations are resolved. It is important that the full range of issues and opinions are clearly vetted, maintain a constructive tone and exchange of information, and identify areas where additional information is needed to fill gaps or build consensus. On the flip side, the agency may be able to verify that the information provided to date is sufficient, thus saving West Basin from embarking on additional studies.

By identifying concerns and permit needs at the outset, the project can be planned effectively and key information can be obtained and provided along the way. This minimizes the frustration of having to backtrack to collect data, or proceeding to the next phase of the project only to halt progress because a regulatory need was not addressed at a previous point in the process.

Once the initial scoping meetings have been conducted, it is important to have continued dialogue to provide updates on studies and milestones. This allows the regulatory agency

to stay engaged and familiar with the project which can facilitate review since the reviewer will not have the burden of needing to get up to speed on the project elements and supporting studies. A suggested frequency is at least quarterly while initial studies are being conducted, moving to monthly once there are findings to present or if there are differences of opinion that need to be resolved. Given that schedules of multiple agencies can be challenging to coordinate, the earlier these can be confirmed the better. It is also recommended to get future meetings (or a recurring meeting) on the calendar in advance, as they can always be rescheduled if necessary. This also sends the message to the regulatory agencies that West Basin is serious and committed to moving this project forward.

**Table 3-1** shows the various agencies that are involved in the review, consultation, and approval of each permit discussed in Section 2. A series of meetings should be set up to discuss each permit. In the case of the Clean Water Act (CWA) Section 404 Permit and the Rivers and Harbors Appropriation Act (RHAA) Section 10 Permit a single series of meetings can be used to cover discussion of both permits since the agencies involved would be the same. It is also recommended to hold a single series of meetings with the local jurisdictions involved in the various encroachment and right-of-way permits, as there may be opportunities to discuss common application elements and information that can satisfy multiple jurisdictional requirements, thus lessening the burden on West Basin.



Table 3-1: Agencies Involved in Review, Consultation, and Approval of Permits

	Federal					State												Local										
	U Environmental Protection Agency	US Army Corps of Engineers	US Coast Guard	National Marine Fisheries Service	US Fish and Wildlife Service	CA Department of Public Health	CA Coastal Commission	CA Department of Fish and Game	CA Department of Transportation	South Coast Air Quality Management District	Department of Parks and Recreation	Department of Water Resources	Public Utilities Commission	CA State Lands Commission	CA Energy Commission	State/Regional Water Quality Control Board	CA State Dept of Toxic Substances Control	California/OSHA	State Mining and Geology Board	City of Redondo Beach	City of El Segundo	City of Manhattan Beach	City of Hermosa Beach	City of Lawndale	City of Hawthorne	City of Gardena	City of Torrance	LA County Department of Public Works
Domestic Water Supply Permit	C					L										C												
NPDES Permit	C			C	C	L	C									C												
Coastal Development Permit		C	C		C		L	C						C		C					L							
Permit to Construct/ Operate									L																			
Section 404 Permit	C	L	C	C	C			C								C												
Section 401 Certification		C														L												
Section 10 Permit		L	C	C	C			C								C												
Incidental Take Permit/Statement		C		L	L			L																				
Encroachment Permits									L								C	C	L	L	L	L	L	L	L	L	L	L
Right-of-Way Permit/Land Use Lease								C						L														
Waste Discharge Requirements																L												
NHPA (Section 106) Consultation										L																		
Lake or Streambed Alteration Agreement								L																				
Remedial Action Plan																C	L											
Review of Changes to Power Plants														L														

### 3.2. Permitting Schedule and Budget

**Table 3-2** shows the various agencies that will likely be consulted with, the steps taken to work with each agency, the approximate timeframe needed for the consultation/permit approval, and a rough budget for the assumed set of activities.

**Table 3-2: Summary of Permit Requirements, Duration, and Cost**

Regulatory Agency	Regulatory Permit, Authorization or Approval	Key Requirements and General Permit Acquisition Approach	Anticipated Permit Acquisition Timeline	Comments	Estimated Cost
<b>Federal Agencies</b>					
U.S. Fish and Wildlife Service (USFWS), Ecological Services Branch	Incidental Take Statement and coordination under Section 7 Endangered Species Act of 1973, as amended (ESA)	Under Section 7 of the ESA, Federal agencies must consult with the USFWS to determine the potential for effects to protected species and whether an Incidental Take Statement (ITS) may be required. Key permit acquisition steps include: <ul style="list-style-type: none"> <li>Identify federally listed species potentially affected</li> <li>Initiate early, informal Section 7 consultation and provide a project description with existing special studies</li> <li>Conduct any additionally required flora and fauna surveys and evaluate the potential for 'take'</li> <li>Prepare draft Biological Assessment (BA) for federal agency</li> <li>Coordinate final BA with federal agency prior to submittal to USFWS and the National Marine Fisheries Service (NMFS)</li> <li>Obtain USFWS/NMFS review and Biological Opinion (BO), and determine need for formal Section 7 consultation <ul style="list-style-type: none"> <li>Support USFWS consultation under Section 106 of the National Historic Preservation Act (NHPA), as described below</li> </ul> </li> <li>As necessary, complete consultation and obtain ITS</li> </ul>	12-18 months	Finished prior to completion of NEPA/CEQA document	Highly variable. Dependant on the number of species associated with the site.  \$100,000 - \$500,000 or up (Total)
	Incidental Take Permit (ITP) under the Migratory Bird Treaty Act (MBTA) (16 USC 703-711)	This Act prohibits the take of any migratory bird or any part, nest, or eggs of any such bird without an Incidental Take Permit (ITP) from USFWS. For acquisition of this permit: <ul style="list-style-type: none"> <li>Coordinate with USFWS simultaneously with the Section 7 ESA review regarding potential "take" and the need for a MBTA ITP</li> <li>Obtain formal USFWS comment and, if needed, a ITP</li> </ul>			
	Consultation under the Fish and Wildlife Coordination Act (16 U.S.C. 661-667c)	This Act authorizes USFWS to review and comment on project effects to fish and wildlife for activities undertaken or permitted by a federal agency. To assist this federal consultation: <ul style="list-style-type: none"> <li>Coordinate with USFWS simultaneously with Section 7 ESA process regarding the need for a ITP under MBTA</li> <li>Obtain USFWS comment under the Act</li> </ul>			
NOAA National Marine Fisheries Service (NMFS)	Consultation and biological opinion in accordance with Section 7 ESA	Any federal permitting agency for this project must consult with the NMFS to determine whether the proposed action is likely to have an adverse effect to a federally listed marine species or designated critical habitat for such species; jeopardize the continued existence of such species that are proposed for listing under the ESA; or adversely modify proposed critical habitat. An ITP may be required. Consultation with the NMFS is the same as that described above for the USFWS under Section 7. (If no federal approval is required, an ITP would be issued in accordance with ESA Section 10).	12-18 months	Finished prior to completion of NEPA/CEQA document	Highly variable. Dependant on the number of species associated with the site.  \$100,000 - \$500,000 or up (Total)
	ITP per Section 104, Marine Mammal Protection Act of 1972 (MMPA) (16 U.S.C. § 1374)	The MMPA prohibits unauthorized "take" of marine mammals in U.S. waters. NOAA NMFS will review project impacts to marine mammals and may authorize an incidental take. Coordinate with the NMFS for ITPs under the MMPA simultaneously with consultation under Section 7 of the ESA, as discussed above, and assist with federal agency consultation under Section 106 of the National Historic Preservation Act (NHPA), as discussed below.			
	Consultation under Section 305(b), Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1855(b))	Also known as the Sustainable Fisheries Act, NMFS consultation is required whenever a federal or state approval is required for an activity that may adversely affect designated essential fish habitat (EFH). Coordination with NMFS would occur for the Sustainable Fisheries Act simultaneously with consultation under Section 7 of the ESA.			

Regulatory Agency	Regulatory Permit, Authorization or Approval	Key Requirements and General Permit Acquisition Approach	Anticipated Permit Acquisition Timeline	Comments	Estimated Cost
<b>Federal Agencies</b>					
U.S. Army Corps of Engineers (USACE)	Individual Permit in accordance with Section 404 Clean Water Act (33 U.S.C. § 1344)	Activities that result in discharges of dredged or fill material into Waters of the United States are regulated by the USACE. Perform the following steps to facilitate acquisition of a Department of the Army permit:- Coordinate early with USACE and other reviewing agencies (USFWS, NMFS, Regional Water Quality Control Board, US Coast Guard)- Confirm permit type (Individual or General), application content, public notification process and likely permit stipulations- Prepare diagrams of alternatives and jurisdictional delineations of affected wetlands/Waters of the US- Prepare Engineer Form 4345, <i>Application for a Department of the Army Permit</i> for an Individual Permit- Coordinate with USACE regarding reviewing agency/public comments and permit conditions- Monitor progress of other reviewing agency approvals and USACE issuance of a permit	6 - 18 months	Application cannot be submitted until after NEPA/CEQA document certified and after submission to obtain a RWQCB 401 permit	\$100,000
	Individual Permit under Section 10 Rivers and Harbors Appropriation Act (33 U.S.C. § 403)	Under Section 10 of the Act, the building of any wharfs, piers, jetties, pipelines, and other in-water structures is prohibited without the approval of the USACE. USACE concerns include contaminated sediments from dredge or fill activity in navigable waters. For acquisition of this permit: <ul style="list-style-type: none"> <li>• Submit Section 10 permit application simultaneously with a CWA §404 permit application, and processed by the USACE together</li> <li>• Monitor U.S. Coast Guard consultation with the USACE regarding marine traffic safety and navigational hazards, including underwater intake and outfall pipelines</li> <li>• Coordination under Section 106 of the National Historic Preservation Act</li> <li>• Consultation under Section 7 of the federal ESA</li> <li>• Consultation under Section 305(b), Sustainable Fisheries Act</li> <li>• Respond to requests for additional information and review permit conditions prior to permit approval</li> </ul>			\$50,000

Regulatory Agency	Regulatory Permit, Authorization or Approval	Key Requirements and General Permit Acquisition Approach	Anticipated Permit Acquisition Timeline	Comments	Estimated Cost
<b>State Agencies</b>					
Regional Water Quality Control Board (RWQCB)	National Pollutant Discharge Elimination System (NPDES) General Permit For Storm Water Discharges Associated With Construction Activity (WQO No. 99-08-DWQ)	<p>A NPDES General Construction Permit is required for stormwater discharges associated with construction activity totaling over 1 acre that would result in waste discharges into surface waters of the state. To acquire this permit:</p> <ul style="list-style-type: none"> <li>• Conduct early coordination with the RWQCB regarding the proposed action and anticipated post-project monitoring and annual certification requirements</li> <li>• Compile data on content and rate of discharge anticipated for the proposed action</li> <li>• Submit a Notice of Intent (NOI) to the RWQCB for a General Construction Permit.</li> <li>• Prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) specifying best management practices (BMPs) and pollution prevention monitoring</li> <li>• Obtain General Permit and implement monitoring plan with monthly reports to the RWQCB</li> <li>• Submit a Notice of Termination to the RWQCB upon completion of the project</li> </ul>	12 - 24 months	Required prior to construction	\$100,000
	NPDES Permit in accordance with Clean Water Act Section 402 (33 U.S.C. § 1342)	<p>The proposed project will generate waste brine and discharge through the power plant deepwater outfall. West Basin will need to either: 1) obtain a separate NPDES Permit, or 2) modify the power plants existing NPDES permit. As there is an existing NPDES Permit, certain technical studies have already been completed for the outfall. To acquire this permit:</p> <ul style="list-style-type: none"> <li>• Develop and submit a Report of Waste Discharge (ROWD) describing the nature of the discharge including chemical testing results</li> <li>• Prepare a filing of federal forms package for a NPDES Permit(s)</li> <li>• Facilitate RWQCB technical analysis to determine the applicable receiving water quality objectives and effluent limitations (with conditions)</li> <li>• Consultation with NMFS under Section 305(b) of the Sustainable Fisheries Act</li> <li>• Draft NPDES permit is developed as a Tentative Order</li> <li>• Ensure CEQA and NEPA requirements are fulfilled prior to a public hearing for this permit</li> <li>• The Draft Permit may be altered based on public comment and is adopted as a Final Permit. The RWQCB then sends the Permit to the SWRCB and EPA for approval</li> <li>• Existing or planned studies to determine the effects of mixing brine with the treated effluent would provide the technical analysis needed in the CEQA/NEPA document</li> </ul>		Required prior to operation	\$100,000
	Waste Discharge Requirements (WDR) per Porter-Cologne Water Quality Control Act (Water Code § 13000 et seq.)	<p>Any activity that results or may result in a discharge of waste that directly or indirectly impacts the quality of waters of the State (including groundwater or surface water) or the beneficial uses of those waters is subject to WDRs. For acquisition of this permit:</p> <ul style="list-style-type: none"> <li>• Identify the need for WDRs under the Porter-Cologne Water Quality Control Act and coordinate with the RWQCB to confirm required WDRs</li> <li>• This will be done concurrently with the NPDES permit process described above</li> </ul>		Typically issued with NPDES Permit	\$50,000
	Water Quality Certification in accordance with Section 401 Clean Water Act (33 U.S.C. § 1341)	<p>Any applicant for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into navigable waters, must provide the licensing or permitting agency a certification that the activity meets State water quality standards. To acquire this permit initiate Section 401 Water Quality Certification studies and seek approval concurrent with the USACE Section 404 CWA application process.</p>		Required prior to construction	\$75,000

Regulatory Agency	Regulatory Permit, Authorization or Approval	Key Requirements and General Permit Acquisition Approach	Anticipated Permit Acquisition Timeline	Comments	Estimated Cost
<b>State Agencies</b>					
California State Lands Commission	Land Use Lease (Right-of-Way Permit) (Pub. Res. Code § 6000 et seq.; 14 Cal. Code Regs. § 1900 et seq.)	A Right-of-Way Permit for use of state tidelands and submerged lands within 3 nautical miles seaward of the ordinary high water mark is required. To acquire this permit: <ul style="list-style-type: none"> <li>Coordinate with State Lands Commission (SLC) staff early and continuously, and submit a complete project description and review all physical and technical project alternatives</li> <li>Assist in the formation and management of a joint local/state/federal Joint Review Panel (JRP) via formal Memorandum of Understanding, with West Basin as the Chair of any JRP; other agencies may participate (e.g., CCC, NOAA)</li> <li>Coordinate with the SLC (via the JRP) and other reviewing agencies to identify and define anticipated lease conditions and support the SLC staff report and presentation for approval by the SLC</li> </ul>	12 – 24 months	Requires certified NEPA/CEQA document and 401 permit to be underway	\$50,000
California Department of Fish and Game (CDFG)	Incidental Take Permit in accordance with the California Endangered Species Act (CESA) (Fish & Game Code § 2081)	A “take” of any endangered, threatened, or candidate species may be allowed by permit if it is incidental to an otherwise lawful activity and if the impacts of the authorized “take” are minimized and fully mitigated. CDFG maintains a list of threatened and endangered species designated under California Fish and Game Code 2070. To acquire this permit: - Coordinate with CDFG regarding affected habitats that may support state-listed rare, threatened, and endangered species and species of special concern- Determine whether a “take” of species designated by the California Fish and Game Commission as endangered or threatened- Apply for Incidental Take Permit, if required	6 - 12 months	Certified NEPA/CEQA document required	Highly variable. Dependant on the number of species associated with the site \$100,000 - \$300,000 or up
	Lake/Streambed Alteration Agreement (Fish & Game Code §1602)	Under California Fish and Game Code Sections 1600–1607, CDFG may require agreements for projects that would substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed. In practice, such agreements occur for projects that alter streambed lands up to the top of the stream bank, the outer edge of the riparian vegetation, or the edge of the 100-year floodplain. This permit requires: <ul style="list-style-type: none"> <li>Coordinate with CDFG regarding jurisdiction and potentially affected stream, riparian, and floodplain systems- Seek CDFG determination whether a Section 1601 agreement is necessary for the proposed project</li> <li>Prepare Notification of Lake or Streambed Alteration (FG 2023) and Project Questionnaire (FG 2024)</li> <li>Coordinate with CDFG regarding site inspections, additional information, approvals, and conditions</li> <li>Facilitate consultation under Section 305(b) of the Sustainable Fisheries Act and the Fish and Wildlife Coordination Act</li> <li>Obtain signed Agreement</li> </ul>	6 - 12 months	Certified NEPA/CEQA document required	\$50,000
California Coastal Commission (CCC)	Coastal Development Permit in accordance with the California Coastal Act (Pub. Res. Code § 30000 et seq.)	Development proposed within the state Coastal Zone requires a Coastal Development Permit issued by the CCC, except where a Local Coastal Plan (LCP) applies. For acquisition of this permit: <ul style="list-style-type: none"> <li>Consult early and continuously with the CCC regarding the proposed action, as well as physical and technological alternatives</li> <li>Identify affected and important coastal zone resources</li> <li>If appropriate, prepare a Memorandum of Agreement for the formation of a Joint Review Panel (JRP)</li> <li>Coordinate the scope of marine biology and other marine resource evaluations</li> <li>Facilitate review of proposed actions under the Coastal Act with the CCC, and actions evaluated under the City’s LCP.</li> <li>Facilitate consultation under Section 305(b) of the Sustainable Fisheries Act</li> <li>Facilitate a Coastal Act consistency determination for lead federal agency involvement</li> <li>Prepare responses to CCC inquiries and comments and represent West Basin during public meetings</li> <li>Provide approved CEQA/NEPA documents and other information required for permit approval</li> </ul>	24-36 months	Requires certified NEPA/CEQA document	\$500,000

Regulatory Agency	Regulatory Permit, Authorization or Approval	Key Requirements and General Permit Acquisition Approach	Anticipated Permit Acquisition Timeline	Comments	Estimated Cost
<b>State Agencies</b>					
California Department of Public Health (CDPH)	Permit to Operate a Public Water System (Health & Safety Code § 116525)	<p>A permit from CDPH to operate a public water system is required to manage water quality and protect public health. This following components are required by regulatory mandate and/or are likely to be required at the discretion of the CDPH District Engineer:</p> <ul style="list-style-type: none"> <li>• TMF Capacity</li> <li>• Technical / Engineering Report</li> <li>• Operations Plan</li> <li>• Water Quality Emergency Notification Plan</li> <li>• Distribution System Monitoring Plan</li> <li>• Watershed Sanitary Survey</li> <li>• Drinking Water Source Assessment and Protection Program Documentation</li> <li>• CT (Disinfection) Analysis</li> <li>• Operations Maintenance and Monitoring Plan</li> <li>• Chlorine / Chloramine Residual Stability Analysis</li> <li>• DBP Formation and Blending Analysis</li> <li>• Corrosion Control Analysis</li> <li>• Algal Toxin Monitoring, Rejection, and Control Analysis</li> <li>• Endocrine Disruptor Monitoring, Rejection, and Control Analysis</li> <li>• Seawater Desalination Integration Plan</li> <li>• Volumetric Concentration Factor Testing (if MF/UF is utilized in the treatment process)</li> <li>• Tracer Study</li> <li>• Integrity Verification Program (if MF/UF is utilized in the treatment process)</li> </ul>	24 – 36 months		\$1,100,000
California Department of Parks and Recreation Office of Historic Preservation	Coordination under Section 106 of the National Historic Preservation Act (NHPA) (16 USC 470 et seq.)	Section 106 of NHPA requires a federal agency with jurisdiction over a federally funded, federally assisted, or federally licensed activity to consider the effects of the agency's action on properties listed or eligible for listing in the National Register of Historic Places (NRHP). To acquire this permit:- Conduct an informal consultation with the State Historic Preservation Officer (SHPO) early in the project development stage- Identify and evaluate historic properties (literature search and Phase 1 terrestrial survey)- Evaluate properties eligible for listing in the NRHP- Formal consultation with the SHPO seeking agreement on effect and treatment of historic properties (if any)	6 -12 months	Finished prior to completion of NEPA/CEQA document	\$20,000
California Department of Transportation (Caltrans)	Encroachment Permit (Streets & Highway Code § 660 et seq.)	<p>Encroachments in, under, or over any portion of a state highway right-of-way, such as state Highway 1 (Sepulvada Ave). To acquire this permit:</p> <ul style="list-style-type: none"> <li>• Coordinate with Caltrans Permit Engineer</li> <li>• Complete an Encroachment Permit Application, including project information, drawings, plans and any prior approvals</li> <li>• Respond to Caltrans inquiries and facilitate permit approval process, as needed</li> </ul>	12 – 24 months	Required prior to local ROW/Encroachment applications	\$50,000

Regulatory Agency	Regulatory Permit, Authorization or Approval	Key Requirements and General Permit Acquisition Approach	Anticipated Permit Acquisition Timeline	Comments	Estimated Cost
<b>Regional</b>					
South Coast Air Quality Management District	Permit to Construct	All applications for permit to construct and Permit to Operate are evaluated for compliance with the prohibitory rules, one or more source specific rules, new source review rules for criteria and toxic air contaminants and other applicable rules and regulations. In addition, all applications have to meet the requirements for Public Notice, if applicable. Public notices are required for facilities that have risks or emissions that exceed the specified thresholds or for equipment located within 1,000 feet of a school. All such public notices are distributed to the communities near the project and parents of children attending nearby schools and are subject to a 30-day public comment period.	6 - 12 months	Required prior to construction	Variable dependant on the number of pieces of equipment that require permitting  \$100,000 - \$250,000
	Permit to Operate	All applications for permit to construct and Permit to Operate are evaluated for compliance with the prohibitory rules, one or more source specific rules, new source review rules for criteria and toxic air contaminants and other applicable rules and regulations. In addition, all applications have to meet the requirements for Public Notice, if applicable. Public notices are required for facilities that have risks or emissions that exceed the specified thresholds or for equipment located within 1,000 feet of a school. All such public notices are distributed to the communities near the project and parents of children attending nearby schools and are subject to a 30-day public comment period.	6 - 12 months	Required prior to operations	Variable dependant on the number of pieces of equipment that require permitting  \$100,000 - \$250,000
Metropolitan Water District of Southern California	Encroachment permit for work within Metropolitan Right-of-Way		12 – 24 months		\$50,000
<b>Local</b>					
City of Redondo Beach	Encroachment Permit	The encroachment permit will typically regulate traffic control, stormwater pollution control, excavation and trenching, work hours, contractor license and insurance, construction, and inspection requirements	3 – 6 months	Dependant on which alternative is selected. May not be required	\$20,000
City of El Segundo	Encroachment Permit	The encroachment permit will typically regulate traffic control, stormwater pollution control, excavation and trenching, work hours, contractor license and insurance, construction, and inspection requirements	3 - 6 months	Dependant on which alternative is selected. May not be required	\$20,000
City of Manhattan Beach	Encroachment Permit	The encroachment permit will typically regulate traffic control, stormwater pollution control, excavation and trenching, work hours, contractor license and insurance, construction, and inspection requirements	3 – 6 months	Dependant on which alternative is selected. May not be required	\$20,000
City of Hermosa Beach	Encroachment Permit	The encroachment permit will typically regulate traffic control, stormwater pollution control, excavation and trenching, work hours, contractor license and insurance, construction, and inspection requirements	3 – 6 months	Dependant on which alternative is selected. May not be required	\$20,000
City of Lawndale	Encroachment Permit	The encroachment permit will typically regulate traffic control, stormwater pollution control, excavation and trenching, work hours, contractor license and insurance, construction, and inspection requirements	3 – 6 months	Dependant on which alternative is selected. May not be required	\$20,000
City of Hawthorne	Encroachment Permit	The encroachment permit will typically regulate traffic control, stormwater pollution control, excavation and trenching, work hours, contractor license and insurance, construction, and inspection requirements	3 – 6 months	Dependant on which alternative is selected. May not be required	\$20,000
City of Gardena	Encroachment Permit	The encroachment permit will typically regulate traffic control, stormwater pollution control, excavation and trenching, work hours, contractor license and insurance, construction, and inspection requirements	3 – 6 months	Dependant on which alternative is selected. May not be required	\$20,000
City of Torrance	Encroachment Permit	The encroachment permit will typically regulate traffic control, stormwater pollution control, excavation and trenching, work hours, contractor license and insurance, construction, and inspection requirements	3 – 6 months	Dependant on which alternative is selected. May not be required	\$20,000