

Attachment C

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ATTACHMENT C

**Desalination Project of the
Monterey Peninsula Water Supply Project**

**PRELIMINARY DRAFT
CONSTRUCTION MANAGEMENT PLAN
for the Desalination Infrastructure Facilities**

Updated April 11, 2019

Submittal to:
Monterey County
Resource Management Agency

Prepared by:
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Prepared for:
CDM Smith
on behalf of
California American Water Company

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1.0 Project Contact Information

The primary contact person for CDM Smith, the design/build contractor for the project, is:

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The primary contact person for the applicants (California-American Water) is:

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2.0 Summary

This Preliminary Construction Management Plan (CMP or Plan) for the Desalination Infrastructure has been prepared for Monterey County Resource Management Agency to address construction information the Desalination Project component of the Monterey Peninsula Water Supply Project (MPWSP)¹. The primary source of information for this Preliminary CMP is the MPWSP Final Environmental Impact Report (FEIR) certified by the California Public Utilities Commission (CPUC) in September 2018; construction plans prepared by the contractor and design build entity (CDM Smith, 2019), and a Storm Water Pollution Prevention Plan (Whitson Engineers, 2019). The Preliminary Draft CMP provides a brief project description of the Desalination Infrastructure Project, outlines the project schedule and hours of operation, summarizes construction activities and operation, identifies construction access and routes, reviews construction impact avoidance and minimization measures identified in the MPWSP FEIR and Mitigation Monitoring & Reporting Plan (MMRP). The Preliminary Draft CMP also distinguishes nearby sensitive receptors to the project site. This Preliminary Draft CMP is provided for planning purposes, and a Final CMP will be developed for submittal to the County of Monterey prior to the initiation of construction. The Final CMP will include updated information concerning project construction based on final design. Accordingly, some modifications to the preliminary plan will be warranted based on more refined site design.

¹ Please note that this preliminary draft is submitted for review purposes for Monterey County PLN150889 and will be updated by construction contractor to fully meet Monterey County requirements prior to construction.

3.0 Project Description

The MPWSP Desalination Plant (proposed project) would be constructed on the upper terrace (approximately 25 acres) of a 46-acre vacant parcel (APN 229-011-021) on Charles Benson Road, northwest of the Monterey One Water (formerly the Monterey Regional Water Pollution Control Agency) Regional Treatment Plant and the Monterey Regional Waste Management District Environmental Park (see **Figure 1**). The facilities to be constructed at the MPWSP Desalination Plant include a 6.4 million gallons per day desalination plant and related facilities, including pretreatment system, a Reverse Osmosis system, a post-treatment system, backwash supply and filtered water equalization tanks, treated water storage tanks; desalinated product water storage and conveyance facilities, brine storage and disposal facilities, and an administration building, chemical feed and storage/laboratory facilities (see **Figure 2**).

Construction equipment and materials associated with the MPWSP Desalination Infrastructure would be stored within the respective construction work areas. Staging areas would all be located on site within the upper 25 acres of the site and would not be sited in any sensitive areas such as riparian or critical habitat for protected species. **Table 1** provides a summary of project construction activities. Construction staging areas are shown on **Figure 3**.

4.0 Project Schedule/Hours of Operation

Construction activities related to the MPWSP Desalination Infrastructure are expected to occur over an approximate two-year period. The project proponent proposes to begin grading for construction of the facilities and site work in August/September 2019 and complete the proposed project to allow commissioning and start-up in Quarter 2/Quarter 3 of 2021. Equipment associated with construction of the proposed MPWSP Desalination Plant would typically operate for 8 hours a day. However, at times, workers and equipment could be on site up to 12-hours per day. Thus, work window hours of operation would be within 7:00AM and 7:00PM, Monday through Saturday. At this site, 24-hour construction activities would not be proposed for the facility construction².

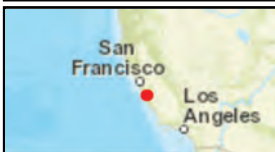
5.0 Construction Activities

Overall the proposed project entails grading and development on approximately 17 acres of the upper 25 acres of the upper area of the site, including site parking, driveways and pedestrian paving; buildings; and various outbuildings and equipment pads; treated and filtered water storage tanks; and lined brine storage ponds. Prior to construction mobilization, the contractors would clear and grade construction areas (including temporary staging areas), and remove vegetation and debris as necessary, to provide a relatively level surface for the movement of construction equipment. Construction activities would include cutting, laying, and welding pipelines and pipe connections; pouring concrete footings for foundations, tanks, and other support equipment; constructing walls and roofs; assembling and installing major desalination process components; installing piping, pumps, storage tanks, and electrical equipment; testing and commissioning facilities; and finish work such as paving, landscaping, and fencing the perimeter of the site.

² The Final EIR (CPUC, 2018) identified potential for construction at the site to be up to 24-hours, however, personal communication with California American Water and CDM Smith representatives indicated that construction is anticipated to occur within a twelve-hour window. (Personal Communication, Michael Zafer, CDM-Smith and Ian Crooks Cal-Am, April 2019).



Source: Google Earth, 2017



Title:

Figure 1
Proposed Project Vicinity Map

Date: 8/17/2017

Scale: N/A

Project: 2014-12



Denise Duffy and Associates, Inc.

Environmental Consultants Resource Planners

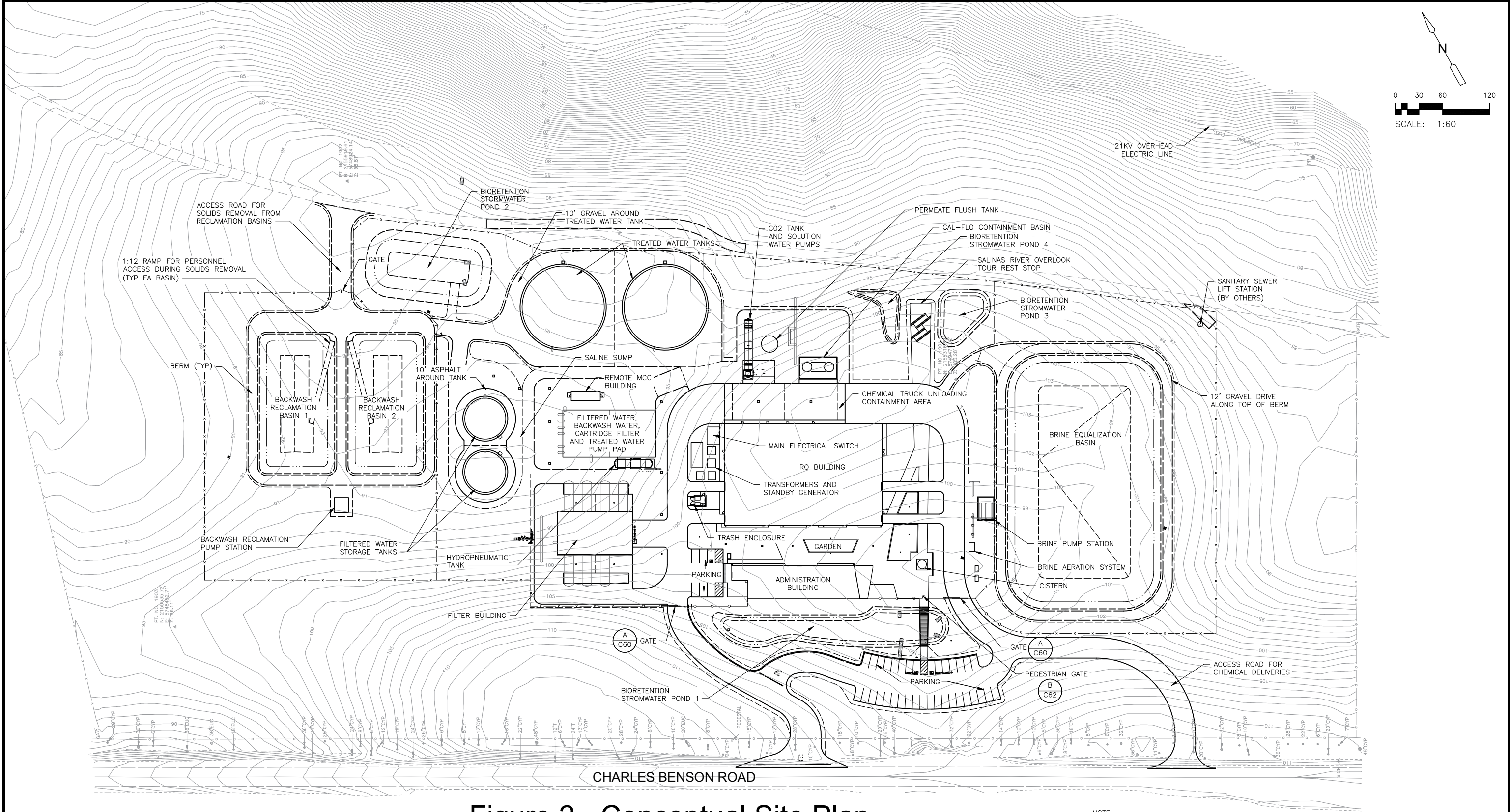


Figure 2 - Conceptual Site Plan

NOTE:
1. SEE C12 FOR SITE FEATURE
ELEVATION DATA.

	REVISIONS		REVISIONS		 2300 Clayton Road, Suite 950 Concord, CA 94520 Tel: (925) 933-2900	 CA LICENSED PROFESSIONAL ENGINEER NO. 77106	 CDM SMITH 2300 CLAYTON ROAD, SUITE 950 CONCORD, CA DRAWN BY G. RODRIGUEZ PROJECT ENG'R D. BROWN DATE MARCH 2019 PROJECT 154001-0191	MPWSP DESALINATION INFRASTRUCTURE PROJECT CIVIL SITE PLAN		
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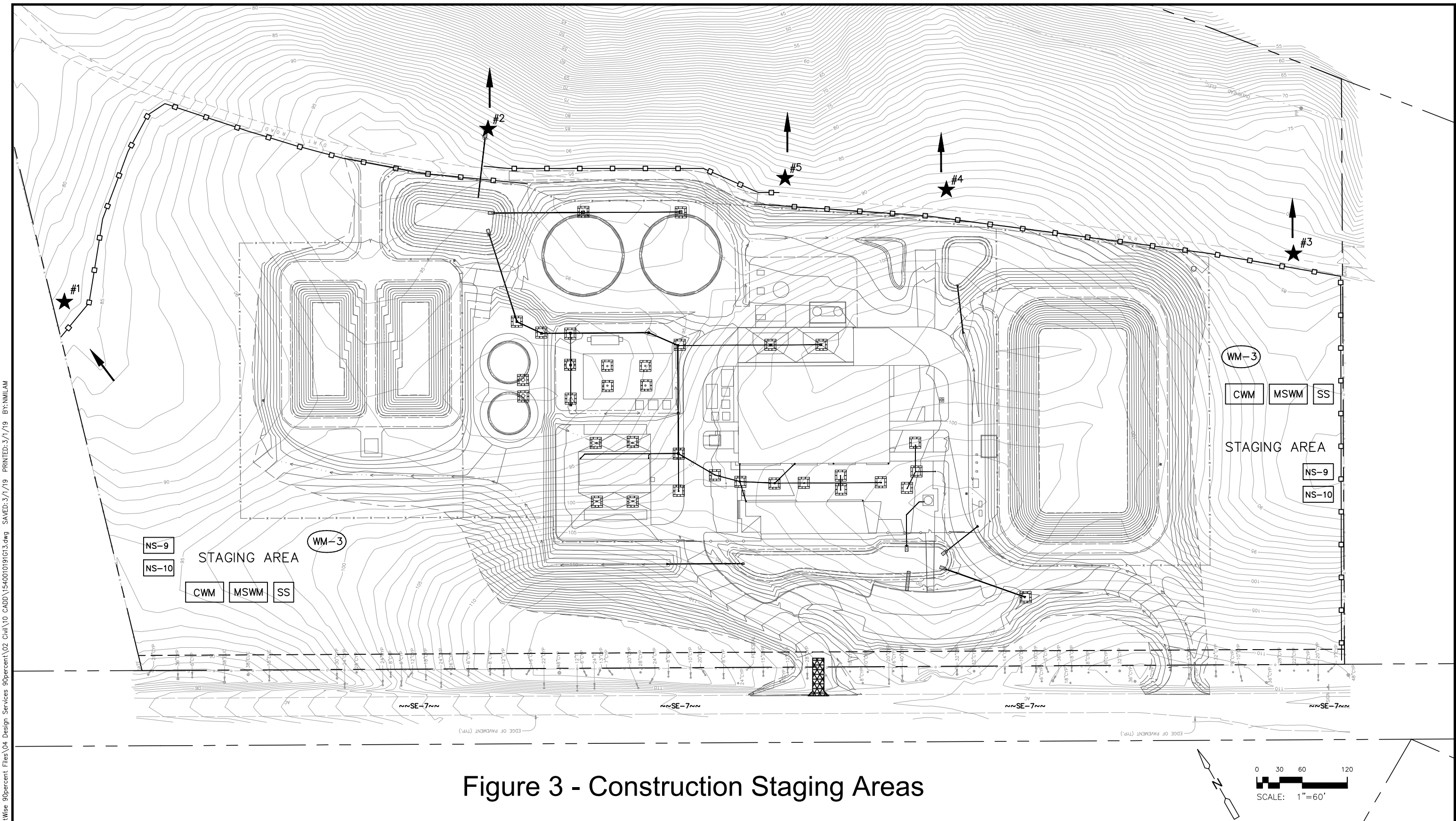


Figure 3 - Construction Staging Areas

	REVISIONS		REVISIONS		 2300 Clayton Road, Suite 950 Concord, CA 94520 Tel: (925) 933-2900	 RICHARD P. WEBER No. 55219 CIVIL STATE OF CALIFORNIA CA LICENSED PROFESSIONAL ENGINEER No. C55219	 WHITSON ENGINEERS 6 HARRIS COURT MONTEREY, CA 93940	MPWSP DESALINATION INFRASTRUCTURE PROJECT CIVIL TEMPORARY WATER POLLUTION CONTROL PLAN			
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6.0 Construction Operation

Table 1 below provides a brief summary of project construction. Construction activities at the MPWSP Desalination Plant site are anticipated to occur for up to 12 hours per day. Specific work window hours of operation would be within 7:00AM and 7:00PM, Monday through Saturday. On-site construction personnel will consist of laborers, craftspeople, supervisory personnel, construction management personnel, civil and construction trades, as well as administrative and support staff. Typical on-site construction staff levels will depend on the number of tasks being performed of the proposed project but will consist of approximately 88 workers per day (CPUC FEIR, 2018).

Typical construction equipment would include excavators, backhoes, graders, pavers, rollers, bulldozers, concrete trucks, flatbed trucks, boom trucks and/or cranes, forklifts, welding equipment, dump trucks, air compressors, and generators. Pretreatment, Reverse Osmosis, and post-treatment facilities would be prefabricated and delivered to the site for installation.

Table 1
SUMMARY OF PROJECT CONSTRUCTION

Project Component(s)	Total Excess Spoils and Construction Debris (cubic yards)	Construction Equipment		Construction Durations and Work Hours
MPWSP Desalination Plant	51,000 cy cut 40,000 cy fill*	<ul style="list-style-type: none"> • Excavators • Backhoes • Air compressors • Loaders • Boom trucks • Cranes • Pavers and rollers • Bulldozers 	<ul style="list-style-type: none"> • Concrete transport • Concrete pump • Flatbed trucks • Generators • Pickup trucks • Trucks for materials delivery 	<p>The MPWSP Desalination Plant would be constructed over an approximately two-year period.</p> <p>Hours of operation would be within 7:00AM and 7:00PM, Monday through Saturday</p>

* SOURCE: Final EIR, 2018, as updated by grading permit submittal to Monterey County for the Desalination Facility.

7.0 Construction Access/Routes

Access to the site will be provided from Charles Benson Road. Other potential access routes for construction vehicles include Highway 1, Del Monte Boulevard and Reservation Road. Traffic-generating construction activities consist of the daily arrival and departure of construction personnel and trucks hauling equipment and materials to the site. As shown in **Table 2** below, up to 88 workers are estimated to be needed to construct the MPWSP Desalination Plant. Construction workers would generate up to 97 round-trips (194 one-way trips) per day (176 commute trips and 18 midday trips). Materials and equipment deliveries would generate an estimated 55 truck round-trips (110 one-way trips) per day. There would be no truck trips related to the offsite disposal of excess spoils because excavated soils not used for backfill would be spread or reused onsite. Parking for construction equipment and worker vehicles would be accommodated within the construction work and staging areas (CPUC FEIR, 2018). To the extent feasible, large construction equipment could be brought to the site and remain onsite to reduce trips on Charles Benson Road; this may occur outside the work hours shown in Table 1. Final Construction Management Plans will be coordinated with the neighboring property owners and agencies using Charles Benson Road prior to construction.

Table 2
ESTIMATED MAXIMUM DAILY VEHICLE TRIPS
DURING PROJECT CONSTRUCTION

Project Facility	Estimated Duration (months)	Maximum Daily Totals		Daily Vehicle Trips			
				Workers ^a		Trucks	
		Workers	Trucks	Round-trip	One-Way	Round-trip	One-Way
MPWSP Desalination Plant	25	88	55	97	194	55	110

^a Worker round-trips are increased by 10 percent to account for miscellaneous midday trips by some of the workers.
SOURCE: MPWSP FEIR, CPUC, 2018

8.0 Avoidance & Minimization Measures

During construction, the site would be managed to avoid impacts related to construction activities in accordance with the adopted MMRP approved by the CPUC as lead agency in September 2018. These avoidance and minimization measures include the implementation of mitigation measures identified in the MPWSP FEIR to address construction impacts including traffic/transportation. The MPWSP MMRP summarizes impacts and avoidance/minimization measures that will be implemented during project construction. The MPWSP MMRP is available online at: <http://www.cpuc.ca.gov/Environment/info/esa/mpwsp/index.html>.

The proposed project would be subject to the state Construction General Permit (CGP) and Waste Discharge Requirements (WDRs), including the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, (Order No. 2009-0009-DWQ, NPDES No. CAS000002) adopted by the State Water Resources Control Board on September 2, 2009; or to its successor permit. In addition, compliance with the Monterey County Grading Ordinance, and the Monterey County Erosion Control Ordinance requires the implementation of specific construction-related standard Best Management Practices (BMPs) to minimize soil erosion, soil loss from construction sites, and prevent stormwater and other pollutants from leaving the construction sites. The BMPs would include, but would not be limited to, physical barriers, construction of sedimentation basins, limitations on work periods during storm events, use of bio infiltration swales, protection of stockpiled materials, and a variety of other measures that would substantially reduce or prevent erosion from occurring during construction.

Also, the proposed project would be required to comply with the most recent post-construction stormwater control requirements (Central Coast RWQCB Resolution No. R3-2013-0032), and would be required to: incorporate Low Impact Development (LID) measures into site design, treat stormwater runoff, retain a portion of stormwater runoff from the site, and manage flows for the 2-through 10-year storm events such that they match pre-project flows. Post construction stormwater BMPs could include, but would not be limited to, the use of pervious concrete or pavement, bioswales, vegetated swales, buffer strips, and vegetated retention ponds.

9.0 Sensitive Receptors

Some land uses are considered more sensitive to odors, toxics, or other criteria pollutants. These areas are referred to as “sensitive receptors”. In general, residences, schools, hotels, hospitals, and nursing homes are considered sensitive receptors. Commercial and industrial uses and agricultural lands are considered the least sensitive. There are no sensitive receptors in the immediate vicinity of any of the

proposed project components. As a result, the proposed project is not anticipated to adversely affect any sensitive receptors. The closest sensitive receptors to the proposed MPWSP Desalination Plant site are the two rural residences on Neponset Road located approximately 0.4 mile (2,200 feet) and 0.75 mile (3,900 feet) west of the site, respectively. Residences off Monte Road on the north bank of the Salinas River, the second closest sensitive receptors, are approximately 0.95 mile (5,000 feet) from the MPWSP Desalination Plant site³.

10.0 References

- [CPUC] California Public Utilities Commission. September 2018. Monterey Peninsula Water Supply Project Final Environmental Impact Report/Environmental Impact Statement. Available online at: < <http://www.cpuc.ca.gov/Environment/info/esa/mpwsp/index.html>>. Accessed April 8, 2019.
- CDM Smith. March 2019. 90% Construction Drawings for the Desalination Infrastructure Project.
- Whitson Engineers. 2019. Storm Water Pollution Prevention Plan (SWPP) for the MPWSP Desalination Infrastructure.

³ The MPWSP FEIR indicated that construction could be as much as 24-hours per day at the site. Per the FEIR, if this occurred, the nearest homes would not be impacted. As stated on page 4.12-24 of the FEIR, the nearest sensitive receptors to the MPWSP Desalination Plant site located off Neponset Road would not be impacted by project construction because they “are beyond the 600 foot study area for noise from non-impact construction equipment (see Section 4.12-.2) because construction-related noise increases at sensitive receptors would not exceed the speech interference threshold of 70 dBA, or exceed the sleep interference threshold of 60 dBA.” (Final MPWSP EIR, CPUC, 2018)