



- Board of Directors
Engineering and Operations Committee

1/13/2015 Board Meeting

7-2

Subject

Appropriate \$430,000; authorize two rehabilitation projects at the F. E. Weymouth Water Treatment Plant; and adopt an addendum to an environmental impact report for the Weymouth plant (Approp. 15477)

Executive Summary

This action authorizes two rehabilitation projects at the F. E. Weymouth Water Treatment Plant: (1) replacement of three washwater tank pumps; and (2) upgrade of the plant's chlorination system. In addition, this action adopts environmental documentation in support of State Revolving Fund (SRF) financing for the Weymouth plant's Chemical Upgrades and Bromate Control projects, both of which are currently underway.

Timing and Urgency

The Weymouth plant has two washwater tanks that store filtered water for use in backwashing the plant's filters. Backwashing is an essential step in the filtration process to cleanse the filter media. The east washwater tank is filled by three washwater pumps that are over 50 years old and have deteriorated through continuous use. One of the three pumps has failed. These pumps need to be replaced to maintain reliable plant operation.

The chlorine feed system is a critical component of the Weymouth plant's disinfection process. Enhancements to the existing chlorine feed system are needed to reduce maintenance restrictions and accommodate chlorine demands after the plant's new ozonation system becomes operational.

Metropolitan has applied for approximately \$11 million in SRF financing for treatment process improvements at the Weymouth plant. These improvements will enhance compliance with the Disinfectants and Disinfection Byproducts Rule (D/DBP Rule) following completion of the Weymouth Oxidation Retrofit Project. Under the SRF application process, a complete set of approved environmental documents must be submitted to the state Division of Drinking Water. As a result, an addendum to the Final F. E. Weymouth Water Treatment Plant Ozonation Facilities and Site Improvements Environmental Impact Report (FEIR) is needed to document proposed project modifications to the certified FEIR.

These projects have been reviewed with Metropolitan's updated Capital Investment Plan (CIP) prioritization criteria, and each is categorized as an Infrastructure Reliability project. Funds for this action are available within Metropolitan's capital expenditure plan for fiscal year 2014/15.

Details

Background

The Weymouth plant was placed into service in 1941 with an initial capacity of 100 million gallons per day (mgd), and has been expanded twice to its current treatment capacity of 520 mgd. The plant delivers a blend of waters from the Colorado River and State Water Project to Metropolitan's Central Pool portion of the distribution system and to an exclusive service area. The Weymouth plant is located in the city of La Verne.

The three washwater pumps in Weymouth Filter Building No. 2 fill the plant's two washwater tanks with filtered water for use in backwashing the filters. Backwashing cleanses the filters after they have been on-line for 20 to

80 hours in active filtration service. A small portion of the filtered water is transported by the washwater pumps into the washwater tanks, from which it is released by gravity to backwash dirty filters when needed. After more than 50 years of continuous use, one of the three washwater pumps has failed and cannot be repaired, while the other two pumps show signs of similar wear and tear. All three pumps need to be replaced.

Chlorine plays an important role in the water treatment process as a disinfectant. After the Weymouth ozonation system becomes fully operational in early 2017, chlorine will continue to be employed to form chloramines, which are used as a disinfectant within the distribution system. Chlorine will also serve as the backup primary disinfectant for the Weymouth plant. At the present time, due to equipment constraints, chlorine equipment maintenance can only be performed during low-flow periods at the plant. Additional chlorine feed equipment is needed to conduct maintenance activities without impacting plant operation, to improve operational reliability, and to meet the expected maximum chlorine demand for algae control after the ozonation system begins operation.

Staff has applied for SRF financing for planned treatment process improvements at the Weymouth plant, including the addition of sodium hypochlorite and aqueous ammonia feed facilities. These systems are needed to integrate the new ozone facilities into the Weymouth plant's treatment process. Once the ozonation system is in operation, chlorine will be added downstream of the filters, allowing the filters to become biologically active. Chlorination of the filter backwash water will then be needed to control filter biomass build-up and prevent excessive pressure drop through the filters. To accomplish this, a new sodium hypochlorite facility must be added. Further, in order to control the formation of bromate, which is a regulated DBP, a new aqueous ammonia facility is needed. Final design of these two chemical feed systems is currently underway.

Project No. 1 – Weymouth East Washwater Tank Pump Replacement – Design Phase (\$160,000)

The planned upgrades include replacement of three washwater pumps with new pumps featuring reduced-voltage starters. The pumps and ancillary equipment will be purchased and installed by Metropolitan staff.

Final design phase activities will include field investigations; preparation of specifications and receipt of bids for pumps, drives, and electrical panels; design of electrical improvements; and preparation of installation drawings.

This action appropriates \$160,000 and authorizes design to replace three washwater pumps at the Weymouth plant. Requested funds include: \$102,000 for design and field investigations; \$24,000 for bidding and project management; and \$34,000 for remaining budget. The final design cost as a percentage of the estimated construction cost is approximately 15 percent. Engineering Services' goal for design of projects with estimated construction cost less than \$3 million is 9 percent to 15 percent. The construction cost for this project is anticipated to range from approximately \$700,000 to \$900,000, which includes an equipment cost of approximately \$515,000.

Staff will return to the Board at a later date for authorization of construction by Metropolitan forces and for award of the pump procurement contract.

The total estimated cost to complete the East Washwater Tank Pump Replacement project, including the current funds requested and future construction cost, is anticipated to range from \$860,000 to \$1.06 million.

Project No. 2 – Weymouth Chlorination System Upgrades – Preliminary Design Phase (\$270,000)

The planned upgrades include providing additional chlorine equipment to meet the expected maximum chlorine demand for algae control after the Weymouth ozonation system begins operation, and to allow chlorine equipment to be maintained during high-flow periods at the plant. These upgrades will be executed in sequential stages so the chlorine feed system remains operational during the construction.

Preliminary design phase activities will include potholing to identify buried infrastructure; development of conceptual layouts; permitting and process safety analyses; and development of final design criteria. All activities will be performed by Metropolitan staff.

This action appropriates \$270,000 and authorizes preliminary design to upgrade the chlorine system at the Weymouth plant. Requested funds include: \$149,000 for the technical analyses noted above; \$70,000 for permitting, project management, and value engineering; and \$51,000 for remaining budget.

Staff will return to the Board at a later date for authorization of final design phase activities. The total estimated cost to complete the Chlorination System Upgrades, including the current funds requested and future construction cost, is anticipated to range from \$2 million to \$3 million.

Project No. 3 – Weymouth Chemical Upgrades and Bromate Control – Approval of Environmental Documentation (No funds required)

In January and February 2013, Metropolitan's Board authorized final design of sodium hypochlorite and bromate control facilities at the Weymouth plant. These facilities are required to integrate the ozonation facilities into the Weymouth plant's treatment process. Once ozone is applied upstream of the treatment basins, chlorination of the filter backwash water will be needed to control filter biomass build-up and prevent excessive pressure drop through the filters, while bromate control will be needed in order to comply with the D/DBP Rule. The planned facilities for each chemical include storage tanks, secondary containment, an unloading facility, chemical feed pumps, instrumentation and controls, and electrical components. Final design of the two chemical feed systems is currently underway.

In December 2013, staff submitted an application to the State Water Resources Control Board's Division of Drinking Water for low-interest financing of the sodium hypochlorite and bromate control upgrades at the Weymouth plant. The amount of SRF funding approved by the state is approximately \$11 million. As part of the SRF application process, a complete set of approved environmental documents must be submitted. The board action to award a contract for construction of these improvements is scheduled for mid-2015.

Addendum No. 9 to the certified FEIR was prepared to document proposed minor modifications to the project. Addendum No. 9 describes the construction and operation of the bromate control facility, relocation of the sodium hypochlorite facility, and removal of Washwater Reclamation Plant No. 1. A copy of Addendum No. 9 appears in [Attachment 3](#).

This action adopts Addendum No. 9 to the Weymouth plant's certified FEIR, which will be submitted as final California Environmental Quality Act (CEQA) documentation to the state Division of Drinking Water in order to secure SRF loan funding.

Summary

This action appropriates \$430,000, authorizes two rehabilitation projects at the Weymouth plant, and adopts an addendum to an EIR. Each project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds have been included in the fiscal year 2014/15 capital expenditure plan. See [Attachment 1](#) for the Financial Statement, [Attachment 2](#) for the Location Map, and [Attachment 3](#) for the addendum to the certified FEIR.

The East Washwater Tank Pump Replacement and Chlorination System Upgrade projects are included within capital Appropriation No. 15477, the Weymouth Improvements Appropriation – FY 2012/13 Through FY 2017/18, which was initiated in fiscal year 2012/13. With the present action, the total funding for Appropriation No. 15477 will increase from \$6,532,000 to \$6,962,000.

Project Milestones

January 2015 – Completion of final design to replace the washwater pumps

August 2015 – Completion of preliminary design of the chlorination system upgrades

Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

Project No. 1 – Weymouth East Washwater Tank Pump Replacement – Design Phase

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed project involves the funding; repair and minor alterations of existing public facilities; and replacement of existing public facilities along with modifications in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees. In addition, the proposed project will consist of basic data collection and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded. Accordingly, the proposed action qualifies for Class 1, Class 2, Class 4, and Class 6 Categorical Exemptions (Sections 15301, 15302, 15304, and 15306 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under four Categorical Exemptions (Class 1, Section 15301; Class 2, Section 15302; Class 4, Section 15304, and Class 6, Section 15306 of the State CEQA Guidelines).

Project No. 2 – Weymouth Chlorination System Upgrades – Preliminary Design Phase

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action consists of appropriation of funds and authorization of preliminary design, which do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded. Accordingly, the proposed action qualifies as a Class 6 Categorical Exemption (Section 15306 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under a Categorical Exemption (Class 6, Section 15306 of the State CEQA Guidelines).

Project No. 3 – Weymouth Chemical Upgrades and Bromate Control – Approval of Environmental Documentation

The environmental effects from the construction of the project were evaluated in the FEIR, which was certified by Metropolitan's Board on April 12, 2005. The Board also approved the Findings of Fact (Findings), the Statement of Overriding Considerations (SOC), the Mitigation Monitoring and Reporting Program (MMRP), and the project itself.

Subsequent to those actions, additional documentation was prepared and processed in response to minor modifications to the project. Addendum No. 9 to the FEIR was prepared to document the proposed minor modifications to the approved project as detailed in this letter.

The current action to consider and approve Addendum No. 9 would not result in any further changes to the original improvements project and its modifications. Collectively, these documents and the previous actions taken by the Board fully comply with CEQA and the State CEQA Guidelines. The environmental documentation (Addendum No. 9 to the certified FEIR) appears in [Attachment 3](#).

The CEQA determination is: Approve that Addendum No. 9 has been completed in compliance with CEQA and the State CEQA Guidelines; approve that the Board has reviewed and considered the information contained in Addendum No. 9 with the Final EIR and find that there is no substantial evidence that the proposed modifications to the previously approved project will create any new significant impacts; approve that the addendum reflects Metropolitan's independent judgment and analysis; and consider and adopt Addendum No. 9.

CEQA determination for Option #2:

Project No. 1 – Weymouth East Washwater Tank Pump Replacement – Design Phase; and Project No. 2 – Weymouth Chlorination System Upgrades – Preliminary Design Phase

None required

Project No. 3 – Weymouth Chemical Upgrades and Bromate Control – Approval of Environmental Documentation

The CEQA determination is the same as under Option #1.

CEQA determination for Option #3:

None required

Board Options

Option #1

Adopt the CEQA determinations that the proposed actions are categorically exempt, adopt Addendum No. 9 to the certified FEIR, and

- a. Appropriate \$430,000; and
- b. Authorize two rehabilitation projects at the Weymouth plant.

Fiscal Impact: \$430,000 of capital funds under Approp. 15477

Business Analysis: These projects will maintain Weymouth plant reliability and enhance the plant's ability to meet water quality goals.

Option #2

Adopt Addendum No. 9 to the certified FEIR, but do not proceed with the two Weymouth rehabilitation projects at this time.

Fiscal Impact: None

Business Analysis: This option would forgo an opportunity to enhance Weymouth plant reliability.

Option #3

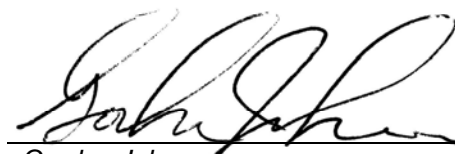
Do not proceed with the two Weymouth rehabilitation projects nor adopt Addendum No. 9 at this time.

Fiscal Impact: None

Business Analysis: This option would forgo an opportunity to enhance Weymouth plant reliability and to receive \$11 million in SRF financing for the chemical upgrades and bromate control projects.

Staff Recommendation

Option #1



Gordon Johnson
Manager/Chief Engineer,
Engineering Services
12/16/2014
Date



Jeffrey Kichtlinger
General Manager
12/23/2014
Date

Attachment 1 – Financial Statement

Attachment 2 – Location Map

Attachment 3 – Addendum No. 9 to the Certified F. E. Weymouth Water Treatment Plant Ozonation Facilities and Site Improvements Program Environmental Impact Report

Financial Statement for Weymouth Improvements Appropriation – FY 2012/13 Through FY 2017/18

A breakdown of Board Action No. 10 for Appropriation No. 15477 for two rehabilitation projects at the Weymouth plant¹ is as follows:

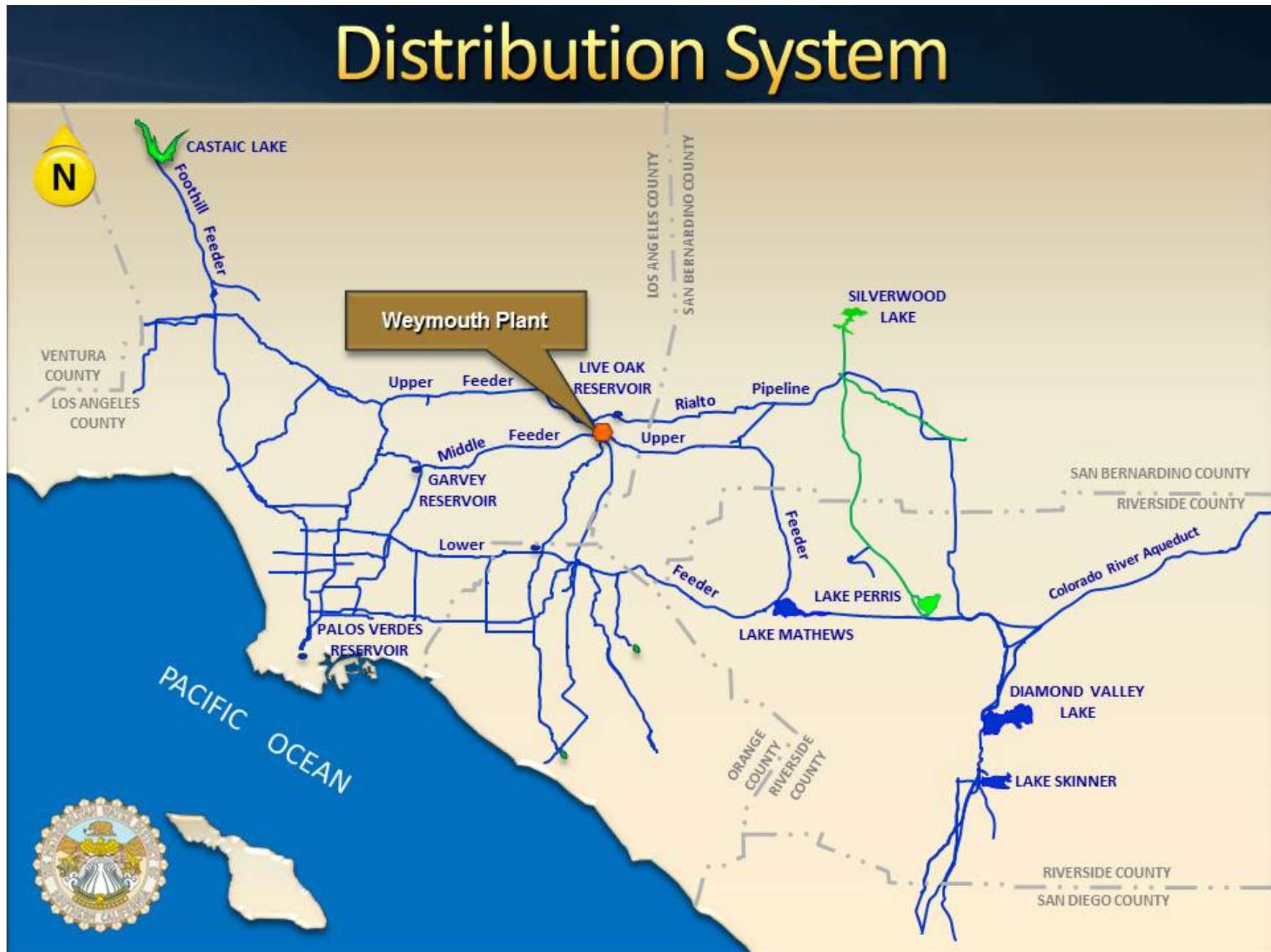
	Previous Total Appropriated Amount (Oct. 2014)	Current Board Action No. 10 (Jan. 2015)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 1,113,400	\$ 147,000	\$ 1,260,400
Final Design	944,500	100,000	1,044,500
Owner Costs (Program mgmt., permitting, bidding)	899,900	94,000	993,900
Submittals Review & Record Drwgs	60,000	-	60,000
Construction Inspection & Support	64,000	-	64,000
Metropolitan Force Construction	70,000	-	70,000
Materials & Supplies	5,500	-	5,500
Incidental Expenses	40,900	4,000	44,900
Professional/Technical Services	2,253,000	-	2,253,000
Contracts	368,480	-	368,480
Remaining Budget	712,320 ²	85,000	797,320
Total	\$ 6,532,000	\$ 430,000	\$ 6,962,000

Funding Request

Appropriation Name:	Weymouth Improvements Appropriation – FY 2012/13 Through FY 2017/18		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15477	Board Action No.:	10
Requested Amount:	\$ 430,000	Budget Page No.:	326
Total Appropriated Amount:	\$ 6,962,000	Total Appropriation Estimate:	\$81,800,000

¹ This is the initial action for replacement of the east washwater tank pumps and upgrade of the chlorination system. The total estimated cost to complete the pump replacement project, including current funds requested and future construction costs, is anticipated to range from \$860,000 to \$1.06 million. The total estimated cost to complete the chlorination system upgrades project, including current funds requested and future design and construction costs, is anticipated to range from \$2 million to \$3 million.

² Includes reallocation of \$83,000 to the Domestic Water & Fire System Improvements Preliminary Design Report for establishing new connections and pipe material upgrades; and \$40,000 to the 2014 Weymouth Environmental Impact Report for public meetings and technical analyses.



**THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA**

**ADDENDUM NO. 9 TO THE
FINAL F.E. WEYMOUTH FILTRATION PLANT
OZONATION FACILITIES AND SITE IMPROVEMENTS PROGRAM
ENVIRONMENTAL IMPACT REPORT**

(State Clearinghouse No. 2004071097)

Report No. 1244

**The Metropolitan Water District of Southern California
Engineering Services Section
Environmental Planning Team
700 North Alameda Street
Los Angeles, CA 90012
Ms. Malinda Stalvey
(213) 217-5545**

October 2014

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1.0 INTRODUCTION

1.1 Purpose of Addendum No. 9

The purpose of this Addendum is to evaluate the environmental effects associated with proposed minor modifications to the previously approved F.E. Weymouth Filtration Plant (Weymouth Plant) Ozonation Facilities and Site Improvements Program (Project). The Final Environmental Impact Report (EIR) for the Project was certified and approved by The Metropolitan Water District of Southern California (Metropolitan) Board of Directors on April 12, 2005. In addition, Metropolitan reviewed and considered Addenda Nos. 1 through 8 to the EIR between January 2007 and November 2012. Subsequent to the certification of the EIR and Addenda, minor modifications to the Project were identified.

This Addendum identifies minor modifications to the existing Project which includes the relocation of the Sodium Hypochlorite Facility and construction of a Bromate Control Facility. During final design of the Sodium Hypochlorite Facility, it was determined that the original site within the plant was not large enough to accommodate the building's footprint due to past expansions of existing structures surrounding the proposed site and therefore a new location would be required. After evaluating potential locations within the plant, Metropolitan determined that the best location for the Sodium Hypochlorite Facility would be at the currently out of service Washwater Reclamation Plant (WWRP) No. 1 Facility site. The site preparation for the relocation would involve the demolition and removal of the existing WWRP No.1 Facility, which was not evaluated in the EIR.

After construction of the Ozonation Facilities evaluated in the EIR, it was determined that bromate control was necessary to meet U.S. Environmental Protection Agency (USEPA) Disinfectant By-Product rule regulations. Bromate is formed as an ozone disinfection by-product, which is regulated by the USEPA. To meet the USEPA regulations, construction of a Bromate Control Facility is proposed, which was not previously analyzed in the EIR. The demolition and construction activities for both projects would be subject to the same mitigation measures identified in the EIR. The proposed modifications are described in detail in Section 2.0.

To comply with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000 et seq.) and *State CEQA Guidelines* (California Code of Regulations Sections 15000 et seq., hereinafter referred to as *Guidelines*), this Addendum to the EIR has been prepared to evaluate the environmental impacts associated with the proposed modification.

1.2 Regulatory Background

According to Section 15164(a) of the *Guidelines*, the lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred. Section 15162 of the *Guidelines* lists the conditions that would require the preparation of a subsequent EIR rather than an addendum. These include the following:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time of the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
 - (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Metropolitan evaluated the environmental impacts associated with proposed modifications, which are described in Section 3.0, in light of the requirements defined under CEQA and the *Guidelines*. As noted in Section 1.4, Metropolitan, acting as the Lead Agency, has determined that none of the above conditions apply and an Addendum to the EIR is the appropriate environmental documentation for the proposed modifications.

1.3 Summary of Effects

Section 3.0 presents an analysis of six environmental categories: air quality, cultural resources, hazards and hazardous materials, hydrology and water quality, noise, and traffic and transportation. The proposed modifications would result in minor changes to air emissions, cultural resources, hazards and hazardous materials, hydrology and water quality, noise, and traffic and transportation during the demolition, construction, and operational phases of the proposed modifications.

The operational impacts of the Sodium Hypochlorite Facility, previously analyzed in the EIR, would not change as a result of relocation of the building; nor would the Sodium Hypochlorite building's structural or operational design change from what was analyzed in the EIR, therefore this analysis will not reevaluate the construction and operation of the Sodium Hypochlorite Project, but will focus on the new impacts associated with the proposed demolition of the WWRP No. 1 facility and relocation of the Sodium Hypochlorite building. The addition of the Bromate Control Facility would increase the overall activities including operational deliveries of supplies by two truck trips per week, but it would not be a substantial increase beyond the current daily operational activities within the plant.

The proposed modifications would not change the conclusions of the EIR regarding the significance of construction and operational air emissions, cultural resources, hazards and hazardous materials, hydrology and water quality, noise, or traffic and transportation. The analysis provided in the EIR for all the other

environmental impact categories would not change due to the proposed modifications. Therefore, for all other environmental impact categories, no written analysis is provided in this Addendum. The proposed modifications do not meet any of the conditions that would require the preparation of a subsequent EIR or negative declaration set forth in Section 15162 of the *Guidelines* or any of the conditions requiring a supplemental EIR set forth in Section 15163 of the *Guidelines*.

2.0 DESCRIPTION OF THE PROPOSED MODIFICATIONS

2.1 Background/EIR

In July 2004, Metropolitan prepared an Initial Study (IS) that evaluated the potential effects of the proposed Project. Based on that evaluation, Metropolitan prepared an EIR pursuant to Section 15070 et seq. of the *Guidelines*. The EIR was circulated for public review from January 6, 2005, to February 22, 2005. Metropolitan's Board of Directors certified the EIR and approved the Project on April 12, 2005.

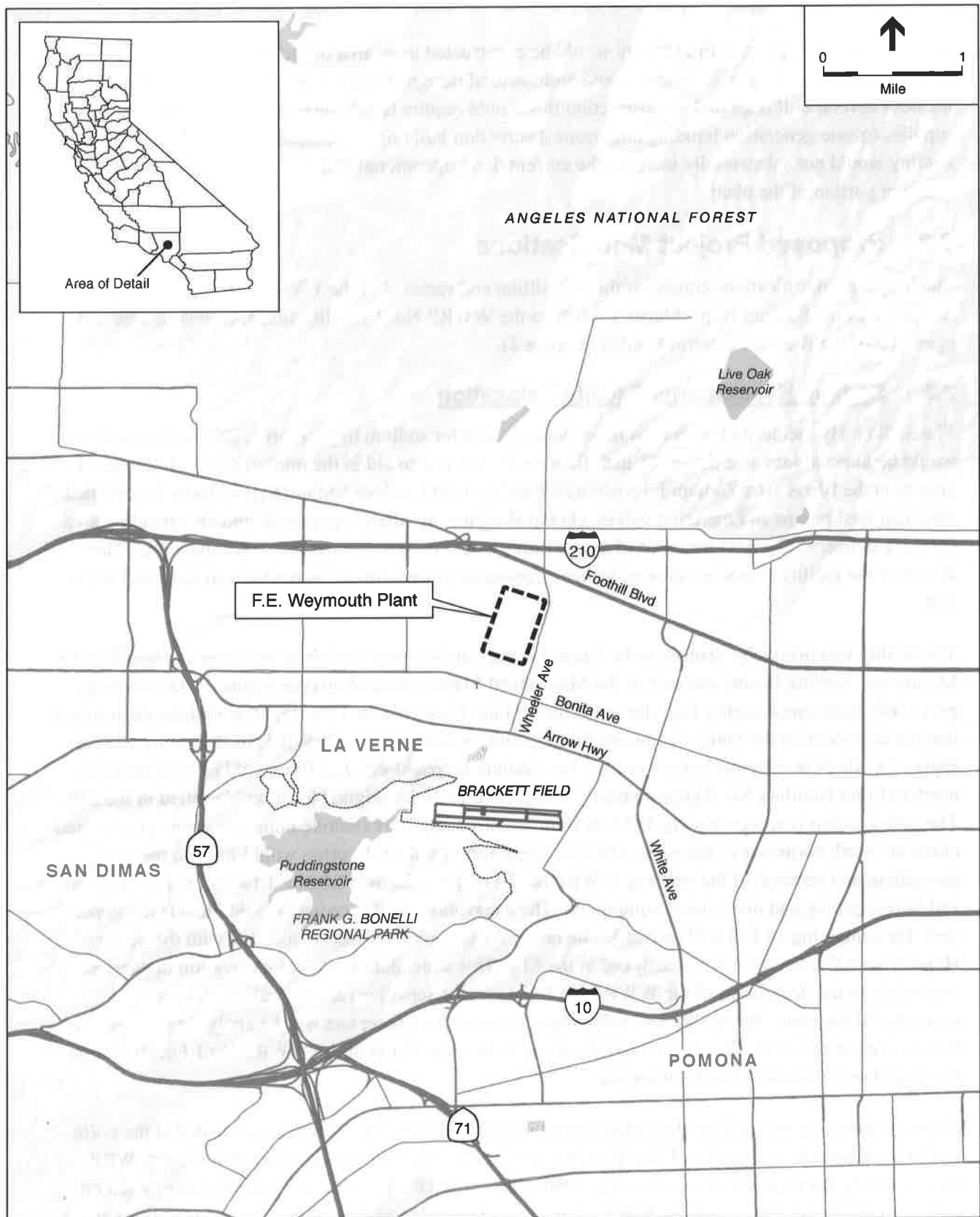
The approved Project, as described in the EIR, involved numerous project components broken down into three elements: (1) the Oxidation Retrofit Program (ORP), (2) the Weymouth Improvements Program (WIP), and (3) Operation and Maintenance Activities (O&M). The objective of the ORP is to ensure compliance with federal and state drinking water regulations for any blend of source water and compliance with anticipated future regulations applicable to the Weymouth Plant (see **Figure 1** for the plant's regional location). The objective of the WIP and O&M programs are to build new or improve existing facilities at the Weymouth Plant necessary to protect worker safety, ensure plant reliability, and facilitate efficient operations and maintenance of the plant. Construction of the ORP, WIP, and O&M activities evaluated in the EIR is currently underway.

2.2 Objectives of the Proposed Project Modifications

The objectives for the proposed modifications are the same as the objectives identified in the EIR for the Project. As described in the EIR, the approved Project has the following objectives:

- To ensure continued compliance with recent federal and state drinking water quality regulations and compliance with anticipated future regulations applicable to the Plant while also enhancing the Plant's ability to treat a greater proportion of State Water Project water; and
- To build new or improve existing facilities necessary to protect worker safety and ensure plant reliability and facilitate efficient operations and maintenance.

This Addendum will evaluate the potential impacts to air quality, cultural resources, and noise resulting from the demolition and removal of the WWRP No. 1 facility and the potential impacts to air quality, cultural resources, hazards and hazardous materials, hydrology and water quality, noise, and traffic and transportation resulting from the construction of the Bromate Control Facility to support the ORP project. The construction and operation of the Sodium Hypochlorite Facility was previously analyzed in the EIR and would not change as a result of the relocation of the building. The facility would be constructed in an area of the plant that would be surrounded by buildings of similar size and architectural design. Further, the northern portion of the plant includes several existing buildings that house equipment that require regular maintenance and deliveries of supplies. The relocation of the Sodium Hypochlorite Facility would not substantially increase the current daily operational and maintenance activities in the northern portion the plant.



SOURCE: ESRI

Metropolitan Weymouth Ozonation Project Addendum No. 9

Figure 1
Project Vicinity

Similarly, the Bromate Control Facility would be constructed in an area of the plant that would be surrounded by buildings of similar size and architectural design. The southern portion of the plant includes several buildings under construction that would require regular maintenance and deliveries of supplies (ozone generation building and ozone destruction building). The addition of the Bromate Control Facility would not substantially increase the current daily operational and maintenance activities in the southern portion of the plant.

2.3 Proposed Project Modifications

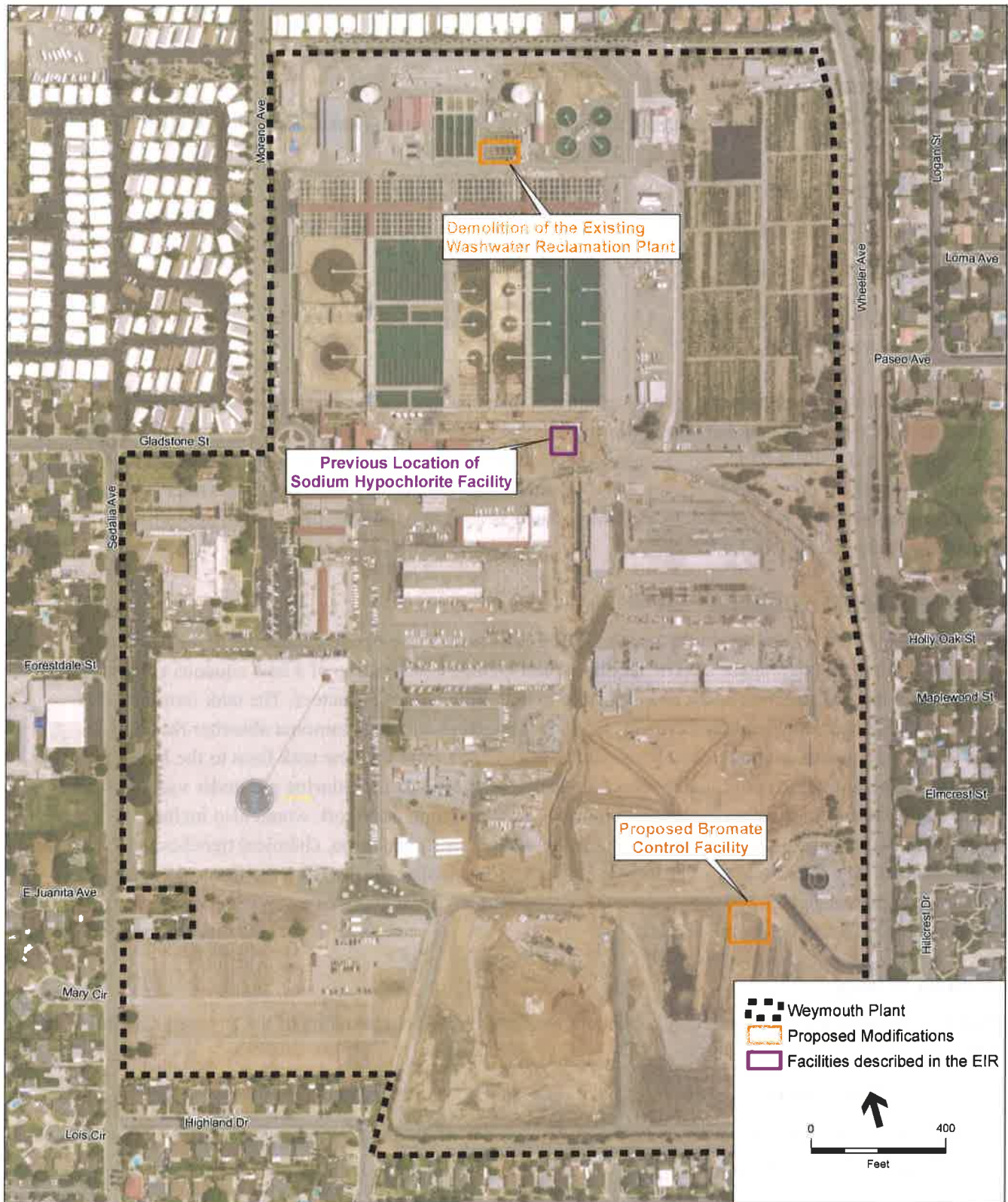
The proposed modifications consist of the demolition and removal of the WWRP No. 1 Facility, the relocation of the Sodium Hypochlorite Facility to the WWRP No. 1 Facility site, and construction and operation of the Bromate Control Facility (**Figure 2**).

2.3.1 Sodium Hypochlorite Facility Relocation

The Sodium Hypochlorite Facility would provide storage for sodium hypochlorite. Sodium hypochlorite would be injected into an existing 42-inch filter backwash line to aid in the minimization of biological growth in the filters. The Sodium Hypochlorite Facility would include sodium hypochlorite storage tanks, chemical feed pumps and metering valves, chemical piping, auxiliary equipment, and an unloading area for truck delivery. The total footprint of the facilities would be approximately 2,800 square feet. The design of the facility would not change in size or operational capacity beyond what was analyzed in the EIR.

The facility was originally planned to be located in the north-central portion of the plant site south of the Mixing and Settling Basins and east of the Mechanical Maintenance Shop (see Figure 2). However, as previously mentioned, during final design of the Sodium Hypochlorite Facility, Metropolitan determined that the best location for future operations of the facility would be at the WWRP No. 1 Facility site (see Figure 2), which is currently out of service. The Sodium Hypochlorite Facility would be relocated just north of Filter Building No. 2 approximately 850 feet north of the original location identified in the EIR. The new location is approximately 330 feet from sensitive receptors (mobile home park) who are located along the north perimeter of the plant. The site preparation for the relocation would involve the demolition and removal of the existing WWRP No.1 Facility. The WWRP No. 1 facility is 23-feet deep and houses piping and mechanical equipment. The excavation for this project would include the upper 5 feet. The remaining 18 feet will be filled. The original excavation impacts associated with the Sodium Hypochlorite Facility were fully analyzed in the EIR. This addendum evaluates excavation impacts as they relate to the demolition of the WWRP No.1 site and the sensitive receptors along the northern perimeter of the plant. Air quality and noise impacts to sensitive receptors will be analyzed as a result of the excavation activities. Due to excavation related to the demolition of the WWRP No.1 Facility, impacts to cultural resources will also be analyzed.

There are currently two WWRP facilities located within the plant. The facilities are located at the north end of the plant site just north of Filter Building No. 2 and east of the Dry Polymer Building. WWRP No. 1 Facility has been out of service since 1990, when WWRP No. 2 was constructed and brought on-line. As a result, the removal of the WWRP No.1 Facility would not change the current operations at the Weymouth Plant.



SOURCE: Bing Maps

Metropolitan Weymouth Ozonation Project Addendum No. 9

Figure 2
Proposed Modifications

Construction

Below is a list of construction equipment anticipated for the proposed demolition of the WWRP No. 1 Facility:

- Two (2) concrete saws
- Two (2) jackhammers
- Two (2) haul trucks
- One (1) skip loader
- One (1) back hoe

It is assumed that all equipment would be used for 7 hours a day for the estimated 4-week project duration. It is also estimated that demolition activities would require 10-12 workers. It is anticipated that this work would occur in 2015. Solid waste generated during the demolition/construction phase of the proposed modification would be recycled and re-used on the site to the extent possible. Other construction-related debris, including inert waste such as asphalt, would be disposed of at regional landfills serving the City of La Verne.

2.3.2 Bromate Control Facility

The Bromate Control Facility would be constructed just south of the ozone generators in the southeast portion of the plant (see Figure 2). The facility would include construction of a new aqueous ammonia tank farm with roof structure and a new structure to house the chlorine ejectors. The tank farm includes unloading facilities, chemical feed system, secondary containment, and ammonia absorber facilities. In addition, two aqueous ammonia feed lines would be extended from the new tank farm to the injection point at the plant inlet. Approximately two four-inch-diameter lines for chlorine gas under vacuum would be added from the chlorinators to the new chlorine injection point. The work would also include modifications to the plant's utility piping, control systems, instrumentation, chemical trenches, and chemical leak detection systems. The total footprint of construction for the Bromate Control Facility would be approximately 3,200 square feet (50 feet by 52 feet); total depth of excavation would be approximately 12 feet below the surface.

Construction

Below is the anticipated construction equipment for the proposed construction of the Bromate Control Facility:

- | | |
|---------------------------------|-----------------------------------|
| • One (1) excavator | • One (1) 1000-gallon water truck |
| • Two (2) front loaders | • One (1) 15-ton truck crane |
| • One (1) backhoe loader | • One (1) 8000-lb fork-lift |
| • One (1) walk behind compactor | • Two (2) ¾-ton pickup trucks |
| • Two (2) dump trucks | |

Construction would require approximately 12 to 14 workers over a period of up to 12 months. It is assumed that all equipment would be used for 7 hours a day for the estimated 12-month project duration. It is anticipated that this work would occur in 2015.

3.0 ENVIRONMENTAL SETTING AND ANALYSIS

No new significant or potentially significant impacts to the physical environment would result from implementation of the proposed modifications, nor would the modifications increase the severity of previously identified significant impacts. The following sections summarize key resource areas assessed as part of this Addendum.

3.1 Air Quality

The EIR assessed potential impacts of the Project to air quality and concluded that construction of the Project would have a significant and unavoidable impact even after incorporation of feasible mitigation. A Statement of Overriding Considerations was adopted by Metropolitan's Board on April 12, 2005. Since the certification of the EIR many elements of the Project have already been constructed. This section provides an analysis of the potential air quality impacts associated with the proposed demolition of the existing WWRP No. 1 Facility and construction of the Bromate Control Facility.

3.1.1 Setting

As described in the EIR, the plant is located in the South Coast Air Basin (SCAB). Air quality in the SCAB is regulated by the South Coast Air Quality Management District (SCAQMD), which is responsible for administering standards and developing rules and regulations governing air emissions in the SCAB. Policies and guidelines governing air quality in the state of California are developed and implemented by the California Air Resources Board (CARB). The USEPA is the federal regulatory agency with authority to regulate air quality. The USEPA can delegate authority to administer certain federal regulatory requirements to state and/or local agencies; for example, the USEPA has delegated authority to the SCAQMD to regulate stationary emission sources. The SCAQMD has developed an Air Quality Management Plan (AQMP) that identifies strategies to achieve attainment of the federal and state ambient air quality standards through the implementation of emission control measures and long-term strategies designed to improve air quality throughout the region.

3.1.2 Significance Criteria

The following CEQA thresholds were used to evaluate the air quality impacts associated with the proposed modifications. Would the project:

Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Expose sensitive receptors to substantial pollutant concentrations?

3.1.3 Potential Impacts

Air Quality Standards

Sodium Hypochlorite Facility Relocation

Construction

Demolition of the existing WWRP No. 1 Facility, which is anticipated to occur over an approximately four-week period, would result in temporary pollutant emissions from off-road equipment at the Weymouth Plant as well as on-road vehicles associated with worker and haul truck trips. The maximum daily construction emissions for the proposed demolition activities were estimated using the California Emissions Estimator Model (CalEEMod), which is designed to model construction emissions for land use development projects based on building size, land use and type, and disturbed acreage, and allows for input of project-specific information. For the purpose of this analysis, the proposed demolition activities are assumed to occur in 2015.

Table 1 below shows the total estimated daily construction emissions for demolition of the existing WWRP No. 1 Facility. As shown in Table 1, the estimated construction emissions for the proposed demolition activity would not exceed any significance thresholds established by the SCAQMD. Construction air emissions of the overall Project assessed in the EIR would not be substantially increased with addition of the pollutant emissions associated with demolition activities; therefore, the proposed modifications would not substantially increase the severity of impacts beyond what was identified in the EIR. Consequently, impacts to air quality would be less than significant.

Table 1
Total Estimated Daily Construction Emissions for WWRP No. 1 Facility Demolition Phase
and Construction of the Bromate Control Facility (Year 2015)

	CO	VOCs	NO _x	SO _x	PM ₁₀ ^a
Proposed WWRP No.1 Demolition Activities (lbs/day)	19.18	3.03	27.85	0.03	2.15
Proposed WWRP No. 1 Excavation Activities ^b (lbs/day)	13.95	1.61	18.52	0.03	1.35
Proposed Bromate Control Facility Construction (lbs/day)	13.56	2.12	22.38	0.02	1.49
Total Emissions (lbs/day)	46.69	6.76	68.75	0.08	4.99
SCAQMD Thresholds (lbs/day)	550	75	100	150	150
Exceed Significant Threshold?	No	No	No	No	No
Entire Project Average Daily Emissions for the year 2007 ^c (Source: Project EIR) (lbs/day)	454	143	630	56	246
Percent of Entire Project Emissions ^d	10.2%	4.7%	10.9%	0.14%	2.0%

CO = Carbon monoxide

VOCs = Volatile organic compounds

NO_x = Nitrogen oxides

SO_x = Sulfur oxides

PM₁₀ = Particulate matter ten microns or less in diameter

^a The PM₁₀ emissions accounts for the implementation of dust control measures required under SCAQMD Rule 403 (Fugitive Dust).

^b The excavation activities are those associated with the project's demolition phase. These emissions are being evaluated separately against SCAQMD's thresholds because the excavation activities would occur after the initial demolition activities.

^c The average daily construction emissions for the year 2007 in the EIR are used in this analysis as they represent the highest daily emissions associated with the Project.

^d Percentage was calculated by dividing the total modification emissions to the 2007 Project EIR emissions.

SOURCE: CalEEMod Version 2013.2.2.

Operations

The operational emissions associated with the Sodium Hypochlorite Facility were already accounted for in the EIR. Therefore, operations of the proposed modifications would not violate any air quality standards beyond those already analyzed in the EIR. The proposed modifications would not result in a new significant impact or substantially increase the severity of the previously identified impact to air quality.

Bromate Control Facility

Construction

Construction of the Bromate Control Facility is anticipated to occur over an approximately 12 month period and would result in temporary pollutant emissions from off-road equipment at the Weymouth Plant as well as on-road vehicles associated with worker and haul truck trips. The maximum daily construction emissions for the proposed demolition activities were estimated using the California Emissions Estimator Model (CalEEMod), which is designed to model construction emissions for land use development projects based on building size, land use and type, and disturbed acreage, and allows for input of project-specific information. For the purpose of this analysis, the proposed demolition activities are assumed to occur in 2015.

Table 1 above shows the total estimated daily construction emissions for construction and finishing work for the Bromate Control Facility. As shown in Table 1, the estimated construction emissions for the proposed construction activity would not exceed any significance thresholds established by the SCAQMD. Construction air emissions of the overall Project assessed in the EIR would not be substantially increased with addition of the pollutant emissions associated with construction activity; therefore, the proposed modifications would not substantially increase the severity of impacts beyond what was identified in the EIR. Consequently, impacts to air quality would be less than significant.

Operation

Operation of the Bromate Control Facility would require approximately two delivery truck trips per week. The addition of two trucks would not substantially increase the current pounds per day of pollutants generated by operations at the plant or require any additional vehicle trips generated by additional workers and additional energy consumption beyond those already analyzed in the EIR. Therefore, operations of the proposed modifications would not violate any air quality standards beyond those already analyzed in the EIR. The proposed modifications would not result in a new significant impact or substantially increase the severity of the previously identified impact to air quality.

Cumulative Air Quality Impacts

As discussed previously, the operational emissions associated with the Sodium Hypochlorite Facility were already accounted for in the EIR. The Bromate Control Facility operational emissions would be associated with approximately two delivery trucks per week. The addition of two truck trips per week would not increase potential air emissions beyond the estimated operational emission levels at the plant analyzed in the EIR; therefore, implementation of the proposed modifications would not result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is in non-attainment.

Sensitive Receptors

There are sensitive receptors within 0.25 mile of the Weymouth Plant, including several schools and residences on all four sides of the plant. The proposed modifications would occur entirely within the plant property. The demolition activities for the WWRP No. 1 Facility would occur over approximately four weeks and excavation activities would occur over approximately three weeks. The nearest sensitive receptor to the proposed modifications would be approximately 330 feet to the north; the nearest sensitive receptor to the previously proposed location for the Sodium Hypochlorite Facility was approximately 800 feet away. The demolition and excavation emissions would be generated in the short-term and would not exceed any of SCAQMD's daily significance thresholds. As discussed previously, the construction air emissions of the overall Project assessed in the EIR would not substantially increase with the addition of the pollutant emissions associated with demolition and excavation activities of the proposed modifications (Table 1).

The nearest sensitive receptor to the Bromate Control Facility would be approximately 450 feet to the east. Construction emissions would only be generated in the short-term and would not exceed any of SCAQMD's daily significance thresholds. As discussed previously, the construction air emissions of the overall Project assessed in the EIR would not be substantially increased with the addition of the pollutant emissions associated with demolition and excavation activities of the proposed modifications (Table 1).

The proposed modification would require an additional two truck trips per week as part of operational deliveries. The additional truck trips for the Bromate Control Facility would not significantly increase the operational activities currently occurring within the Weymouth Plant. Although the new location of the Sodium Hypochlorite Facility is approximately 330 feet from the nearest sensitive receptor, the new facility would not significantly increase air pollutants beyond existing conditions. The Weymouth Plant is an existing water treatment facility that has machinery and vehicles moving around the property on a daily basis. The addition of two trucks per week would not substantially increase the vehicle traffic within the plant. As a result, implementation of the proposed modifications would not create a new impact beyond what was analyzed in the EIR. Impacts to sensitive receptors would be less than significant.

3.1.4 Conclusion

As shown above, the construction emissions for the proposed modifications would generate temporary pollutant emissions; none of the pollutants would be in excess of SCAQMD's significance thresholds nor would they result in a substantial increase in the severity of previously identified impacts. The proposed modifications would not result in a new significant impact or substantially increase the severity of the previously identified impact to air quality. Mitigation measures already required in the Mitigation Monitoring and Reporting Plan for the Project would apply to the proposed modifications.

Implementation of these mitigation measures would ensure that the WWRP No.1 Facility demolition emissions and construction of the Bromate Control Facility would not result in a new significant impact. Air emissions of the overall Project assessed in the EIR would not be substantially increased with addition of the proposed modifications. A Statement of Overriding Considerations was prepared for the EIR.

Significance: Less than significant with implementation of mitigation measures previously described in the EIR.

3.2 Cultural Resources

The EIR assessed potential impacts of the Project to cultural resources and concluded that with incorporation of mitigation measures, impacts to historic resources at the Weymouth Plant would be less than significant. All other environmental impacts related to cultural and paleontological resources were determined not to be significant (i.e., No Impact) during the Initial Study process of the EIR. This section provides an analysis of the potential cultural resource impacts associated with the proposed demolition of the existing WWRP No. 1 Facility and construction of the Bromate Control Facility.

3.2.1 Setting

As described in the EIR, Metropolitan completed the construction of the Weymouth Plant in 1940. The Weymouth Plant constitutes a major piece of the water distribution process, and was historically selected by Metropolitan for public display of its achievements. The City of La Verne identified the “Weymouth Filtration Plant” as a Local Landmark on the Cultural Resources Policy Map CR-1 included in the Cultural Resources Element of the General Plan. Therefore, based on the State criteria, CEQA definitions and the City of La Verne Local Landmark designation, the Weymouth Plant site contains potentially significant historic structures (Phase I Cultural Resource Study, March 2014).

3.2.2 Significance Criteria

The following CEQA thresholds were used to evaluate the cultural resources impacts associated with the proposed modifications. Would the project:

Cause a substantial adverse change in the significance of a historical resource as defined in Guidelines Section 15064.5?

Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15604.5?

Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Disturb human remains, including those interred outside of formal cemeteries?

3.2.3 Potential Impacts

Historical Resources

The WWRP No. 1 Facility was constructed in 1962 as part of the second expansion of the Weymouth Plant. Evaluation of proposed changes to the Weymouth Plant for the EIR led to the conclusion that five buildings at the plant, including their associated courtyards, arcades and landscapes, were potentially eligible for the National Register and California Register under Criteria A(1) and C(3). These five buildings include: the Administration Building, Water Softener Buildings No. 1 and 2, and Filter Buildings No. 1, and No. 2. Addendum No. 3 to the EIR further recognized the filter cells, basins (Basin Nos. 1-8), and components used for the filtration process as contributing elements to the historic character of the Weymouth Plant, recognizing them as significant engineered aspects of the facility.

Evaluations prepared for this Addendum have determined that the WWRP No. 1 Facility does not contribute to the historic significance of the Weymouth Plant. Nevertheless, the facility was constructed

during the period of historic significance (1941-1962) for the plant, has not been substantially altered since the original construction, and could provide additional information about the engineering methods of the filtration process. Accordingly, Metropolitan would apply the mitigation measure that was applied to engineered components described in Addendum No. 3; a HAER-like report would be prepared to photograph and document original materials prior to and during demolition of the WWRP No. 1 Facility, and the report would be archived and kept on file at Metropolitan headquarters.

The Bromate Control Facility project would construct a new structure in a previously disturbed area and would not impact any existing historical resource. The proposed modifications would not result in a new significant impact or substantially increase the severity of the previously identified impact to historical resources.

Archaeological Resources

The proposed location of the Sodium Hypochlorite Facility was previously excavated for the construction of the existing WWRP No. 1 Facility to a depth of 23 feet. The current project would grade the upper five feet of the WWRP No. 1 site and infill the remaining 18 feet. This would result in no new excavation occurring at the project site. Further, construction of the Sodium Hypochlorite Facility would be located in an area of the plant that has been previously excavated and developed with current water treatment facilities. The previous construction of the WWRP No.1 Facility and surrounding facilities would have destroyed the integrity of any resources if they were present. The Weymouth Plant has been highly disturbed over the last 60 years with construction of several facilities throughout the plant. No archaeological resources were ever found. As a result, the proposed relocation of the Sodium Hypochlorite Facility and the demolition of the existing WWRP No. 1 Facility would not result in a new significant impact or substantially increase the severity of any previously identified impact to archaeological resources.

The proposed Bromate Control Facility would be located in a highly disturbed area of the plant. This portion of the plant is currently under construction, and was previously graded and excavated as a result of the construction of the ORP project to the north, detention basin to the south, and plant piping throughout this area. The Weymouth Plant has been highly disturbed over the last 60 years with construction of several facilities in the vicinity of the proposed Bromate Control Facility. No archaeological resources were ever found within the plant. As a result, the proposed modifications would not result in a new significant impact to archaeological resources.

Paleontological Resources

The proposed location of the Sodium Hypochlorite Facility where excavation would occur was previously excavated for the construction of the existing WWRP No. 1 Facility to a depth of 23 feet. The current project would grade the upper five feet of the WWRP No. 1 site and infill the remaining 18 feet. This would result in no new excavation occurring at the project site. The location of the Bromate Control Facility was graded and excavated as a result of ongoing construction activities. There are no previously recorded paleontological resources at the Weymouth Plant (Metropolitan, 2005). In addition, due to the plant's location on recent alluvium, tertiary volcanic flow rock, and older metamorphic rock, excavations have a low probability of yielding significant paleontological resources.

In general, the Weymouth Plant is highly disturbed by over 60 years of construction and operational activity, and no paleontological resources were ever discovered. Moreover, the Weymouth Plant does not contain any unique geologic features. Therefore, implementation of the proposed modifications would not directly or indirectly destroy a unique paleontological resource or unique geologic feature, or result in a new significant impact to paleontological resources.

Human Remains

The proposed location of the Sodium Hypochlorite Facility where excavation would occur was previously excavated for the construction of the existing WWRP No. 1 Facility to a depth of 23 feet. The current project would grade the upper five feet of the WWRP No. 1 site and infill the remaining 18 feet. This would result in no new excavation occurring at the project site. Construction of the Sodium Hypochlorite Facility would be located in an area of the plant that was previously excavated and developed with current water treatment facilities. The location of the Bromate Control Facility was graded and excavated as a result of ongoing construction activities. The Weymouth Plant has been highly disturbed in the last 60 years with construction of several facilities throughout the plant. No burials were ever found within the plant. Based on the previously disturbed nature of the Weymouth Plant and the absence of any archaeological resources at the plant, it is highly unlikely that human remains would be disturbed by implementation of the proposed modifications. The proposed modifications would not result in a new significant impact to human remains.

3.2.4 Conclusion

The project modifications would not result in new significant historical, cultural or paleontological resources impacts nor result in an increase in the severity of previously identified significant historical, cultural or paleontological resource impacts. Impacts would be less than significant.

Significance: Less than significant with implementation of mitigation measures previously described in the EIR

3.3 Hazards and Hazardous Materials

The EIR assessed potential impacts to hazards and hazardous materials and concluded that with incorporation of mitigation measures, project impacts related to hazards and hazardous materials would be less than significant. This section provides an analysis of the potential hazards and hazardous materials impacts associated with the proposed demolition of the existing WWRP No. 1 Facility and construction of the Bromate Control Facility.

3.3.1 Setting

As described in the EIR, the Weymouth Plant currently stores and handles various hazardous materials used in water treatment and maintenance facilities.

Most of the treatment chemicals delivered to the Weymouth Plant arrive by truck. Chemical delivery trucks are required to stop and register at the guard-gated entrance, to check for leaks, and to provide notice to plant personnel of their arrival. Plant personnel escort these chemical trucks to their appropriate unloading area.

3.3.2 Significance Criteria

The following CEQA thresholds were used to evaluate hazards and hazardous materials impacts associated with the proposed modifications. Would the project:

Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

3.3.3 Potential Impacts

Transport of Hazardous Materials

Construction

Construction activities of the proposed modifications would temporarily increase the use and transport of commonly used hazardous materials (i.e., gasoline, diesel fuel, hydraulic fluids, paint, and other similarly related materials). These materials would be brought onto the project site, used, stored and disposed of during the construction period. These hazardous materials would be transported in accordance with US Department of Transportation (DOT) and California Highway Patrol (CHP) hazardous materials regulations. Disposal of all hazardous materials would be conducted in compliance with federal and state regulations. As a result, impacts would be less than significant.

Operations

Sodium Hypochlorite Facility Relocation

All operational activities associated with the Sodium Hypochlorite Facility were fully analyzed within the EIR. No new impacts would occur beyond those described in the EIR.

Bromate Control Facility

The proposed Bromate Control Facility would include a new aqueous ammonia tank farm. Aqueous ammonia is currently stored and used on the site and is an important component of the disinfection process at the plant. The proposed modifications would create a new storage location on the plant site, increasing the amount of aqueous ammonia stored on the site. Once in operation, the Bromate Control Facility would require additional truck deliveries of aqueous ammonia. The aqueous ammonia required for the Bromate Control Facility would be stored in aboveground tanks with secondary containment areas to contain accidental spills. The Bromate Control Facility would be in compliance with hazardous materials storage regulations. Further, all chemical delivery trucks would comply with USDOT and CHP regulations regarding hazardous materials transport.

The California Hazardous Materials Release Response Plans and Inventory Program (CCR Title 19, Division 2, Chapter 4) requires facilities that store hazardous materials to prepare a Hazardous Materials Business Plan (HMBP) and an Emergency Response Plan (ERP). The Weymouth Plant is in compliance with this regulation. Based on implementation of secondary containment and other leak detection and regulatory compliance measures, the risk of injury to the public or environment due to the use, storage, transportation, and disposal of this hazardous material would be less than significant.

Accidental Upset

Construction

As stated in the EIR, a variety of hazardous substances and wastes would be stored, used, and generated during construction of the Project components. These would include fuels for machinery and vehicles, motor oils, cleaning solvents, paints, and sealants. Accidental spills, leaks, or fires involving hazardous materials may represent a potential hazard to human health and the environment if not appropriately addressed. Provisions to properly manage hazardous substances and wastes are included in Metropolitan's construction specifications. In addition, implementation of best management practices (BMPs) required by construction regulations would prevent a release to the environment from hazardous materials use. Such BMPs would include training of employees and contractors in proper hazardous materials storage and handling procedures, establishment of emergency response and cleanup procedures, and installation of secondary containment units. Spill cleanup kits would be maintained at all construction sites. Construction workers would be required to comply with existing and future hazardous materials laws and regulations for the transport, use and disposal of hazardous materials.

With implementation of the provisions and BMPs to properly manage hazardous substances as identified in Metropolitan's construction specifications, the risk to human health and the environment associated with use of hazardous materials during project construction would be minimized. Therefore, construction impacts related to hazardous materials would be less than significant.

Operations

Sodium Hypochlorite Facility Relocation

All operational activities associated with the Sodium Hypochlorite Facility were fully analyzed within the EIR. No new impacts would occur beyond those described in the EIR.

Bromate Control Facility

The Bromate Control Facility would include new aqueous ammonia storage tanks constructed of carbon steel. The tanks would be constructed and secured to meet seismic requirements. Each tank would be equipped with a level indicator/transmitter and pressure/vacuum relief valves. Each storage tank would include an automatic shutoff valve that would automatically close when the tank level reaches a designated fill level, to prevent tank overflow.

Aqueous ammonia would be unloaded from the vendor cargo tank at a concrete pad adjacent to the storage tanks. A secondary containment system for the tank farm would be constructed to detect and contain an accidental spill. The pad would be sloped into a collection trough that drains into the tank farm spill containment system, and be designed to capture any minor chemical spills from vendor cargo tanks

and wash-down water (wash-down water is water used to clean the tank farm area). The captured liquid would be drained via a pipe through the containment wall (with a check valve to prevent reverse flow) to the tank farm's low point sump, which is equipped with level sensors and an ammonia detector. As a result, any accidental release of aqueous ammonia would be contained on-site and would be disposed of in accordance with all applicable hazardous waste regulations. Therefore, operational impacts of the Bromate Control Facility would be considered less than significant.

Hazardous Materials near Schools

The proposed modifications would be located within one-quarter mile of eight surrounding school facilities. See **Table 2** for a list of surrounding school facilities.

Table 2
School Facilities Located within One-quarter Mile of the Weymouth Plant

School Facility	Address
Grace Miller Elementary School	1629 Holly Oak Street
Calvary Baptist School	2990 Damien Avenue
La Verne Parent Participation Preschool	909 Juanita Avenue
La Verne KinderCare	3602 Wheeler Avenue
Damien High School	2280 Damien Avenue
Ramona Middle School	3490 Ramona Avenue
Ramona Avenue Christian Church	909 E Juanita Avenue
Joan Macy School	1350 3rd Street

Construction

Construction of the proposed modifications would not result in a release of hazardous emissions, substances, or waste that might impact any of the nearby school sites. All project construction related hazardous materials deliveries and hazardous waste transportation during project construction would access the Weymouth Plant by a designated truck route in compliance with USDOT and CHP regulations regarding hazardous materials transport. All construction workers would comply with local, state, and federal safety regulations regarding the handling, use, and disposal of all hazardous materials, and implement BMPs that would prevent a release to the environment from hazardous materials use and transport. Compliance and adherence to applicable safety regulations and BMPs would ensure hazard and hazardous materials impacts to nearby schools and the community are reduced to a less than significant level.

Operations

Sodium Hypochlorite Facility Relocation

All operational activities associated with the Sodium Hypochlorite Facility were fully analyzed within the EIR. No new impacts would occur beyond those described in the EIR.

Bromate Control Facility

The Bromate Control Facility would include a new aqueous ammonia storage tank increasing the amount of aqueous ammonia stored and used on the site. The new facility would include a spill detection and containment system to detect and contain any accidental release of aqueous ammonia.

Aqueous ammonia, an important part of the disinfection process, has been delivered by tanker truck to the Weymouth plant since the mid-1980s. In addition to the spill detection and containment system, all employees would comply with the existing Metropolitan spill prevention protocols and applicable regulations. Therefore, impacts would be considered less than significant.

Adopted Emergency Response Plan

As stated in the EIR, Wheeler Avenue bordering the plant on the east is a designated emergency evacuation route within the City of La Verne (La Verne, 1998). Other nearby emergency evacuation routes in the vicinity are Foothill Boulevard to the north of the plant site and Bonita Avenue and Arrow Highway to the south.

The proposed modifications will not impair implementation or physically interfere with the City of La Verne Emergency Response Plan, or any other state or federal agency's emergency evacuation plan. Construction of the proposed modifications would occur entirely within the existing Weymouth Plant and would not require the reduction or closure of any traffic lanes. Construction and operation of the proposed modifications would conform to all Los Angeles Department of Transportation, City of La Verne Police Department, and City of La Verne Fire Department access standards to allow adequate emergency access along the impacted roadways. Construction vehicle traffic outside the plant may slow traffic or hinder some circulation around the immediate plant area. However, all impacts to traffic would be temporary, during construction only, and operations of the new facilities would not change current conditions. Due to the temporary nature of the impact and conformance to existing County and City department regulations, impacts to the City of La Verne emergency access and plans would be less than significant.

3.3.4 Conclusion

With implementation of BMPs, and compliance with an HMBP, ERP, and all state and federal regulations, impacts to hazards and hazardous materials are considered less than significant. The proposed modifications would not result in a new significant impact or substantially increase the severity of previously identified impacts related to hazards and hazardous materials.

Significance: Less than significant.

3.4 Hydrology and Water Quality

The EIR assessed potential impacts to hydrology and water quality and concluded that with incorporation of mitigation measures, project impacts to hydrology and water quality at the Weymouth Plant would be less than significant. This section provides an analysis of the potential hydrology and water quality impacts associated with the proposed demolition of the existing WWRP No. 1 Facility and construction of the Bromate Control Facility.

3.4.1 Setting

Drainages in the project area include Marshall Creek directly to the east of the Weymouth Plant, Puddingstone Channel to the west, Live Oak Channel further east, and Live Oak Wash to the east and south. These drainages originate in the San Gabriel Mountains to the north, flow south through the city of La Verne, and join together immediately upstream of Puddingstone Reservoir. Marshall Creek runs parallel to Wheeler Avenue immediately to the east of the Weymouth Plant. The portion of Marshall Creek adjacent to the plant site (from approximately 150 feet north of Holly Oak Street south to First Street) is an underground concrete channel.

The general direction of stormwater runoff flow on the plant site is from north to south, from a maximum elevation of 1,102 feet in the north to a minimum elevation of 1,050 feet at the southeast corner. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map indicates that the project site is situated within an area determined to be outside the 0.2 percent annual chance floodplain (FEMA, 2008). The City of La Verne (1998) General Plan shows no flood hazard zone within the plant boundaries.

3.4.2 Significance Criteria

The following CEQA thresholds were used to evaluate the hydrology and water quality impacts associated with the proposed modifications. Would the project:

Violate any water quality standards or waste discharge requirements?

Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

3.4.3 Potential Impacts

Water Quality Standards

Construction

Construction of the proposed modifications would involve demolition and earthmoving activities such as excavation, grading, and soil stockpiling. Demolition and construction activities could result in pollutant discharge and soil erosion and the potential subsequent discharge of pollutants and sediment to down-gradient surface waters or drainages (Marshall Creek and adjacent storm drains). Sedimentation of down-gradient waterways could degrade water quality and affect designated beneficial uses. Construction activities would also involve the use and handling of chemicals such as, but not limited to, concrete, cement, oil, fuels, and lubricants. In the event of accidental release of chemicals, such as spills during fueling of equipment or vehicles, the chemicals could come into contact with stormwater runoff and discharge into the nearby water bodies, thus affecting surface water quality.

The construction of the proposed modifications would be less than an acre in size and would not require the preparation of a SWPPP. However, the construction activities would comply with the minimum construction BMP requirements, as specified in the Los Angeles County MS4 Permit. As a result, the appropriate sediment control, erosion control, non-stormwater, and waste and material management BMPs designed to prevent sediment and chemicals used on the site from washing into surface waters would be implemented in accordance with the Construction General Permit, Adopted Order 2009-0009-DWQ (as amended by 2010-0014-DWQ and 2012-006-DWQ). Consequently, impacts to water quality would be less than significant.

Operations

Sodium Hypochlorite Facility Relocation

All operational activities associated with the Sodium Hypochlorite Facility were fully analyzed within the EIR. No new impacts would occur beyond those described in the EIR.

Bromate Control Facility

During operation of the Bromate Control Facility, accidental spills could occur as a result of equipment malfunction, accidental release of materials during the delivery of aqueous ammonia, or spills associated with the handling of chemicals used during the operation of the facility. Without mitigation, such spills or accidental releases could drain into surface waters or infiltrate to groundwater, either directly or during stormwater runoff events, resulting in degradation of surface water or groundwater quality. The Bromate Control Facility would be designed to include a roof and chemical spill detection and containment system which would detect and prevent chemicals from escaping the facility in the case of an accidental spill. In addition, the Weymouth Plant is currently operating under a NPDES MS4 Permit and currently handles aqueous ammonia within the plant. As a result, Metropolitan is required to implement BMPs to minimize the potential for accidental spills as well as spill response measures in the event that a spill does occur. In addition, the operation practices of the Bromate Control Facility would comply with the existing management protocols in place at Metropolitan-owned properties, such as the HMBP and the Hazardous Materials and Waste Emergency Contingency Plans. These plans would be modified as necessary to cover the new Bromate Control Facility. Chemical handling at the site would not change significantly beyond existing conditions and would adhere to all existing emergency plans established for the Weymouth Plant. Impacts to water quality as a result of the proposed Bromate Control Facility project are considered less than significant.

Existing Drainage Patterns – Flooding

Construction

The proposed modifications would include new construction that would require demolition, grading and excavation at the WWRP No.1 site and the Bromate Control Facility site. The Sodium Hypochlorite Facility relocation project would replace an existing structure and would not add any additional impervious surfaces beyond existing conditions and what was analyzed in the EIR for the Project. The construction of the Bromate Control Facility would replace a currently pervious area with an impervious structure; however, on-site drainage facilities have adequate capacity for the runoff that would be generated by the Weymouth Bromate Control Facility. During site grading and excavation activities, bare soil would temporarily be exposed to erosion. Though Metropolitan is exempt from the RWQCB

Industrial General Stormwater Permit, Metropolitan would be required to implement BMPs in compliance with the stormwater pollution prevention measures required by the City of La Verne and the Los Angeles County Ordinance Title 12, Chapter 12.80 Stormwater and Runoff Pollution Control for the proposed modifications. As a result, implementation of BMPs would ensure that construction of the proposed modifications would not adversely affect water quality or waste discharge amounts in the surrounding area. Impacts would be less than significant.

Operations

Sodium Hypochlorite Facility Relocation

Operation of the Sodium Hypochlorite Facility would not increase the amount of impervious surface area beyond that already analyzed in the EIR. Therefore, operation of the proposed modifications would be considered less than significant.

Bromate Control Facility

The Bromate Control Facility would include a new structure that would increase the impervious surface area within the plant. The new structure would have the potential to increase surface runoff rates in the immediate area of the Bromate Control Facility. However, during grading of the facility the project footprint would be designed to drain to the existing stormwater drainage system that serves the plant. Operations would not increase the rate or amount of surface runoff resulting in flooding and would not exceed the capacity of existing or planned stormwater drainage systems. Impacts would be considered less than significant.

3.4.4 Conclusion

With implementation of BMPs, and compliance with the NPDES MS4 Permit and Industrial General Permit, impacts to hydrology and water quality are considered less than significant. The proposed modifications would not result in a new significant impact or substantially increase the severity of the previously identified impact related to hydrology and water quality.

Significance: Less than significant.

3.5 Noise

The EIR assessed potential impacts related to noise and concluded that even with implementation of mitigation, construction noise impacts would be significant. Operational noise impacts would be less than significant with mitigation incorporated. A Statement of Overriding Considerations was adopted by Metropolitan on April 12, 2005. Since the certification of the EIR many elements of the Project have already been constructed by Metropolitan. This section provides an analysis of the potential noise impacts associated with the proposed demolition of the existing WWRP No. 1 Facility and the construction and operation of the Bromate Control Facility. While the EIR analyzed the construction and operation of the Sodium Hypochlorite Facility Project, it did not analyze the demolition of the existing WWRP No. 1 Facility or the excavation activities at the new site. As a result, this analysis will not reevaluate the construction and operational noise impacts associated with the Sodium Hypochlorite Facility relocation, but will discuss the noise impacts to the sensitive receptors and focus on the new impacts associated with the demolition of the WWRP No. 1 Facility and excavation at the new location. The demolition and

construction activities of the proposed modification would be subject to the same mitigation measures as identified in the EIR.

3.5.1 Setting

The Weymouth Plant is surrounded by sensitive receptors including residences and schools along all four sides of the plant. The nearest sensitive receptors to the proposed modifications are located approximately 330 feet to the north of the WWRP No.1 Facility. Demolition activities for the WWRP No. 1 Facility would occur for approximately four weeks and excavation activities would occur for approximately three weeks. All activities associated with the proposed modifications would occur entirely within the footprint of the plant. Construction-related noise levels associated with the Sodium Hypochlorite Facility would be similar to the construction activities analyzed in the EIR. The nearest sensitive receptor to the Bromate Control Facility would be approximately 450 feet to the east. Construction activities would last for approximately 12 months. All activities associated with the proposed modifications would occur entirely within the footprint of the plant. The construction work for the modifications would occur within the allowable County of Los Angeles construction times of 7:00 a.m. to 8:00 p.m. Monday through Saturday. Construction work within the Weymouth Plant would be subject to the same mitigation measures identified in the EIR.

3.5.2 Significance Criteria

The following CEQA thresholds were used to evaluate the noise impacts associated with the proposed modifications. Would the project result in:

Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

3.5.3 Potential Impacts

Noise Standards

Construction of the proposed project would result in temporary increases in noise levels at the plant on an intermittent basis. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers. Construction activities typically require the use of noise-generating equipment. Typical noise levels from various types of equipment that may be used during construction are listed in Table 3. The table shows noise levels at a distance of 50 feet from the construction noise source.

Table 3
Typical Noise Levels from Construction Equipment

Construction Equipment	Noise Level (dBA, L _{eq} at 50 Feet)
Air compressor	81
Auger Drill Rig	85
Backhoe	80
Compactor	82
Concrete mixer (Truck)	85
Concrete Pump	82
Crane	88
Drill Rig Truck (not Percussion)	79
Small Dozer	83
Large Dozer	85
Dump Truck	88
Excavator	89
Generator	81
Jackhammer	88
Paver	89
Pneumatic Tool	85
Water Truck	88
Sweeper	82

Source: Federal Transit Administration, Office of Planning and Environment 2006.

The Weymouth Plant is located within the City of La Verne and subject to the General Plan Noise Element and Municipal Code incorporated therein. The Noise Element goals are implemented through land use planning and the City's Municipal Code (Chapter 8.20, Noise Control) (City of La Verne, 1998). The Code adopts the County of Los Angeles noise control ordinance by reference and the applicable noise standards that are used in this analysis are presented in Table 4.

Table 4
Los Angeles County – Allowable Construction Noise Levels (dBA)

Allowable Work Dates and Hours	Single Family Residential		Multi-family Residential		Semi-Residential/ Commercial		Business ^a
	Mobile Equip. ^b	Stationary Equip.	Mobile Equip. ^b	Stationary Equip.	Mobile Equip. ^b	Stationary Equip.	Stationary Equip.
Daily 7:00 a.m. to 8:00 p.m. ^c	75	60	80	65	85	70	-
Daily 8:00 p.m. to 7:00 a.m. ^a	60	50	65	55	70	60	-
Daily ^a	-	-	-	-	-	-	85

^a Includes all day Sunday and legal holidays.

^b Restricted to equipment used for less than 10 days.

^c Exception for Sundays and legal Holidays.

SOURCE: County of Los Angeles Noise Ordinance (County Code §12.08.440).

Construction activities would require long-term (i.e., greater than 10 days) operation of heavy-duty mechanical equipment. As a result, project construction activity falls under the scheduled and relatively long-term operation of stationary equipment (Table 4). Based on the County of Los Angeles Code, Section 12.08.440, the proposed modifications would have a significant impact related to construction noise if construction activities exceed 60 dBA at single-family residences between the hours of 7:00 a.m. to 8:00 p.m. The County Code does not specify construction limits to schools or religious facilities. These are assessed using the lowest acceptable noise level of 60 dBA L_{eq} .

Sodium Hypochlorite Facility Relocation

Construction

The removal of the WWRP No. 1 Facility would have a short-term noise impact associated with the demolition activity. The nearest off-site sensitive receptors would be the mobile homes located approximately 330 feet to the north of the WWRP No. 1 Facility.

The greatest noise levels produced would be associated with an excavator during excavation activities, which would result in 88 dBA (jackhammer) at a distance of 50 feet. Given this distance, it was determined that the resulting noise levels at the mobile homes during excavation for the Sodium Hypochlorite Facility would be approximately 68.6 dBA^a L_{eq} . These construction noise levels, which are anticipated to only occur during the County's allowable daytime construction hours (i.e., 7:00 a.m. to 8:00 p.m.), would exceed the County's 60 dBA daytime noise criteria for single-family residential uses.

The mitigation measures described in the EIR require the use of sound walls to attenuate construction noise if the activity is within 250 feet of sensitive receptors. The proposed activity would be approximately 330 feet away from the nearest sensitive receptors. However, since the demolition activity would exceed the County's 60 dBA daytime noise criteria for single-family residential uses, a sound wall would be required. Therefore, the proposed modification would require the use of a sound wall during construction/demolition activities to reduce noise impacts to the sensitive receptors. Noise levels associated with demolition and excavation activities for the Sodium Hypochlorite Facility would still remain above the 60 dBA threshold even with implementation of the mitigation measures. Nevertheless, the noise impacts associated with demolition and construction activities for the proposed modifications would not substantially increase the severity of impacts beyond what was identified in the EIR.

Operation

Operation of the Sodium Hypochlorite Facility would not increase the current operational noise levels at the plant or require any additional vehicle trips generated by additional workers beyond those already analyzed in the EIR. The operational noise levels associated with the Sodium Hypochlorite Project have already been accounted for in the EIR. Therefore, operation of the proposed modification would not violate any noise criteria or standards beyond that already analyzed in the EIR. There would be no impact.

^a Includes a 3-dBA reduction for existing walls along the property boundary.

Bromate Control Facility

Construction

The Bromate Control Facility is located approximately 450 feet from single-family residences to the east along Wheeler Avenue. The greatest noise levels produced during construction would be associated with an excavator during excavation and backfill activities, which would result in 89 dBA at a distance of 50 feet (see Table 3). Given this distance, it was determined that the resulting noise levels at the single-family residences along Wheeler Avenue during excavation for the Bromate Control Facility would be approximately 62.1 dBA^b L_{eq}. These construction noise levels, which are anticipated to only occur during the County's allowable daytime construction hours (i.e., 7:00 a.m. to 8:00 p.m.), would exceed the County's 60 dBA daytime noise criteria for single-family residential uses. Therefore, the proposed modification would require the use of a sound wall during construction activities to reduce noise impacts to the sensitive receptors. As a result, with implementation of Mitigation Measures N-1 through N-5 of the EIR, construction noise levels for the Bromate Control Facility would be reduced to 54.1 dBA, below the 60 dBA County threshold, and would be considered less than significant with mitigation. The noise impacts associated with construction activities for the proposed Bromate Control Facility would not substantially increase the severity of impacts beyond what was identified in the EIR.

Operation

Operation of the Bromate Control Facility would not include any component that would produce excessive noise. The line of sight to the nearest sensitive receptor (450 feet to the east) would be obstructed by existing buildings and a perimeter fence. The operations of the facility would not increase the current operational noise levels at the plant or require any additional vehicle trips generated by additional workers beyond those already analyzed in the EIR for all proposed projects. Therefore, operation of the proposed modification would not violate any noise criteria or standards beyond that already analyzed in the EIR. There would be no impact.

Groundborne Vibration

Construction

Analysis of temporary construction noise impacts is based on typical construction phases; published or previously measured decibel levels of construction equipment; attenuation of those noise levels due to distances; presence of any barriers between the construction activity and the sensitive receptors near the sources of construction noise; and time of day and expected duration of construction activity.

Vibrations from construction activities are evaluated for potential impacts at sensitive receptors. Typical activities evaluated for potential building damage due to construction vibration include drilling or excavation in close proximity to structures. The groundborne vibration is also evaluated to determine whether perception of the vibration will cause annoyance.

The proposed modifications would include demolition of the WWRP No. 1 Facility and excavation within 330 feet of a residential neighborhood, which borders the Weymouth Plant to the north. The construction associated with the Bromate Control Facility would be 450 feet from the residents to the east. The typical

^b Includes a 3-dBA reduction for existing walls along the property boundary.

vibration levels from various types of equipment that may be used during construction are listed in Table 5. The table shows vibration levels at a distance of 25 feet from the construction vibration source.

Table 5
Vibration Velocities for Construction Equipment

Construction Equipment	PPV at 25 feet (inches/second) ^a	RMS at 25 feet (Vdb) ^b
Loaded Supply Trucks	0.076	86
Caisson Drilling	0.089	87
Small Bulldozer	0.003	58
Jackhammer	0.035	79

PPV = peak particle velocity

RMS = root mean square

^a Buildings can be exposed to groundborne vibration levels of 0.2 PPV without experiencing structural damage.

^b The human annoyance response level is 80 RMS.

Source: Federal Transit Administration (FTA) 2006.

The use of equipment during construction would generate vibration levels of up to 0.035 PPV or 79 RMS (jackhammer) at a distance of 25 feet (Table 5). The nearest receptors to the proposed modification construction activities are approximately 330 feet from the demolition activities of the WWRP No. 1 Facility. The residents to the north would be exposed to vibration levels of approximately 0.00072 PPV and 45 RMS. These levels would not exceed the Federal Transit Administration's (FTA) threshold of architectural damage for conventional sensitive structures of 0.2 inch per second PPV, or the FTA threshold of human annoyance to groundborne vibration of 80 RMS. Impacts would be considered less than significant.

Operation

Operation and maintenance activities associated with the proposed Sodium Hypochlorite and the Bromate Control Facility would occur entirely within the new structure and would not generate excessive groundborne vibrations. The proposed modifications would not result in a new significant impact or substantially increase the severity of the previously identified impact to operational vibrations.

Permanent Ambient Noise Levels

The Sodium Hypochlorite Facility would include the use of mechanical equipment that was not originally planned to be located in the northern portion of the plant. The Bromate Control Facility would also include the use of new mechanical equipment. However, all of the noise generating equipment for both the Sodium Hypochlorite Facility and the Bromate Control Facility's chlorine ejection building would be housed within an enclosed building. The Bromate Control Facility's aqueous ammonia tank farm, covered with a canopy, would house a small pump which would not produce noise over the operational noise levels at the Weymouth plant. Further, the Bromate Control Facility would be located approximately 450 feet from the nearest sensitive receptor and the operational noise levels associated with the proposed Sodium Hypochlorite Project have already been accounted for in the EIR noise analysis; the proposed modifications would not introduce a new source of operational noise at the plant beyond what was discussed in the EIR. The Weymouth Plant is an existing water treatment facility that has mechanical

equipment running 24-hours a day to treat and convey water. Therefore, the proposed modifications would not alter the conclusions of the EIR and operational noise impacts would be less than significant.

Temporary Ambient Noise Levels

As discussed previously, the nearest off-site sensitive receptors to the proposed construction activities for the WWRP No. 1 Facility would be the mobile homes located approximately 330 feet to the north. Given this distance, it was determined that the resulting construction-related noise levels at the mobile homes would be approximately 69.6 dBA L_{eq} . The nearest sensitive receptors to the proposed Bromate Control Facility would be the single-family residences approximately 450 feet to the east where it was determined that construction related noise levels would be approximately 62.1 dBA L_{eq} . The construction noise levels for both projects would exceed the County's 60 dBA daytime noise criteria for single-family residential uses.

The mitigation measures described in the EIR require the use of sound walls to attenuate construction noise if the activity is within 250 feet of sensitive receptors. Since the demolition and construction activities of the proposed modifications would exceed the County's 60 dBA daytime noise criteria for single-family residential uses, a sound wall would be required. Therefore, the proposed modification would require the use of a sound wall during construction/demolition activities to reduce noise impacts. As a result, with implementation of Mitigation Measures N-1 through N-5, construction noise levels for the Bromate Control Facility would be reduced to approximately 54.1 dBA, below the 60 dBA County threshold, and would be considered less than significant with mitigation. Noise levels associated with demolition and excavation activities for the Sodium Hypochlorite Facility would still remain above the 60 dBA threshold, even with implementation of the mitigation measures. Nevertheless, the noise impacts associated with demolition and excavation activities for the proposed modifications would not substantially increase the severity of impacts beyond what was identified in the EIR.

3.5.4 Conclusion

The implementation of the proposed modifications would result in temporary noise impacts during demolition and construction activities, while impacts associated with operational noise and excessive groundborne vibration would be considered less than significant. These impact conclusions for the proposed modifications are consistent with the findings of the EIR for the Project, and would not result in a substantial increase in the severity of previously identified impacts. Mitigation measures already required in the Mitigation Monitoring and Reporting Plan for the Project would apply to the demolition and excavation activities associated with the proposed modifications. Therefore, construction-related noise and vibration impacts of the proposed modifications would not result in a new significant impact or substantially increase the severity of the previously identified impacts to noise.

Significance: Less than significant with implementation of mitigation measures previously described in the EIR.

3.6 Traffic and Transportation

The EIR assessed potential impacts to traffic and transportation and concluded that with incorporation of mitigation measures, project impacts to traffic and transportation surrounding the Weymouth Plant would be less than significant. This section provides an analysis of the potential traffic and transportation

impacts associated with the proposed demolition of the existing WWRP No. 1 Facility and construction of the Bromate Control Facility.

3.6.1 Setting

As described in the EIR, the Weymouth Plant is located west of Wheeler Avenue, south of Foothill Boulevard (Route 66), east of Damien Avenue, and north of Bonita Avenue in the City of La Verne. The Foothill Freeway (Interstate [I-] 210) is located approximately 0.5 miles north of the facility, the San Bernardino Freeway (I-10) is located approximately two miles south of the facility, and the Orange Freeway (State Route 57) is located approximately two miles west of the facility. The EIR identified one intersection operating at LOS D or higher: the intersection of Wheeler Avenue and Foothill Boulevard during the afternoon peak hours.

3.6.2 Significance Criteria

The following CEQA thresholds were used to evaluate the traffic and transportation impacts associated with the proposed modifications. Would the project:

Conflict with an applicable plan, ordinance or policy establishing measure of effectiveness for performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Result in inadequate emergency access?

3.6.3 Potential Impacts

Circulation System Performance

Construction

Construction of the proposed modifications would add a minor contribution to traffic on regional and local roadways due to construction worker vehicle trips and truck trips for material hauling. Construction-related traffic would not result in any permanent degradation in operating conditions or LOS on any local roadways. Construction-related traffic would be associated primarily with material hauling trucks that would reduce roadway capacities due to slower movements and larger turning radii, compared to passenger vehicles. Truck trips during construction would primarily utilize I-210 and Foothill Boulevard, as well as I-10 and Wheeler Avenue.

The worst case scenario for construction traffic of the proposed modifications would occur in 2015 when both projects would be implemented simultaneously within the Weymouth Plant. The combination of project construction workers, hauling of materials from the demolition of the WWRP No. 1 Facility and construction material deliveries for the Bromate Control Project would generate additional construction

traffic within and surrounding the plant. Construction activities are ongoing for projects described within the EIR. The proposed modifications would increase the number of workers within the Weymouth Plant by a maximum of 26 individuals, six percent above the already analyzed 416 workers. This increase would constitute a minor change to the already existing conditions at the Weymouth Plant and would be considered less than significant.

Operations

It is anticipated that the operation of the Weymouth Plant after the proposed modifications are completed would not require any new employees. Therefore, level of service impacts would not increase beyond those described in the EIR and no impact would occur due to the proposed modifications.

Congestion Management Plan

According to the 2010 *Los Angeles County Congestion Management Plan (CMP)*, the nearest CMP facilities in the project vicinity are Foothill Boulevard and Arrow Highway. Per Appendix B of the CMP, *Guidelines for CMP Transportation Impact Analysis*, a regional CMP-level traffic analysis is not required for the proposed modifications' temporary construction phase or permanent operations since it would not add 50 or more weekday peak hour trips to the nearest CMP roadway facility, or 150 or more peak hour trips to a freeway mainline segment. Therefore, the proposed modifications would not conflict with the Los Angeles County CMP or degrade the LOS standards. Impacts would be less than significant.

Emergency Access

The proposed modifications are not anticipated to impair implementation or physically interfere with the City of La Verne Emergency Response Plan, or any other state or federal agency's emergency evacuation plan. Construction of the proposed modifications would occur entirely within the existing Weymouth Plant and would not require the reduction or closure of any traffic lanes. Construction and operation of the proposed modifications would conform to all Los Angeles Department of Transportation, City of La Verne Police Department, and City of La Verne Fire Department access standards to allow adequate emergency access along the impacted roadways. Construction vehicle traffic outside the plant may slow traffic or hinder some circulation around the immediate plant area. All impacts to traffic would be temporary during construction only and operations of the new facilities would not change beyond the current conditions. Due to the temporary nature of the impact and conformance to existing County and City department regulations, impacts to emergency access and plans would be less than significant.

3.6.4 Conclusion

The proposed modifications would not result in a new significant impact or substantially increase the severity of the previously identified impact to traffic or transportation.

Significance: Less than significant.

4.0 LIST OF PREPARERS

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- Wendy Picht, Senior Environmental Specialist

ESA Consultants

- Kevin Smith, Project Manager
- Nicolle Steiner, Senior Associate
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6.0 CONCLUSION

Section 15164(a) of the *Guidelines* states the following:

“The lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a Subsequent EIR have occurred.”

The proposed modifications to the original Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Furthermore, new information associated with the proposed modifications do not indicate that the Project will have one or more significant effects not discussed in the EIR; that significant effects previously examined will be substantially more severe than shown in the EIR; that mitigation measures or alternatives previously found not to be feasible would in fact be feasible; or that mitigation measures or alternatives which are considerably different from those analyzed in the EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measures or alternative. Accordingly, an addendum was prepared as opposed to a negative declaration or a subsequent environmental impact report. As the Lead Agency for the proposed project modification, Metropolitan is issuing this Addendum in accordance with the *Guidelines* (Section 15164).

The Metropolitan Water District of Southern California


Signature

10/21/14
Date

for Deirdre West
Printed Name

Team Manager
Title

APPENDIX A: Demolition Emission Calculations

MWD Addendum No. 9 - Demolition and Excavation Emissions

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	2.80	1000sqft	0.06	2,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2015

Utility Company

CO2 Intensity (lb/MW/hr)	0	CH4 Intensity (lb/MW/hr)	0	N2O Intensity (lb/MW/hr)	0
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Anticipated demolition and grading phases of Washwater Reclamation plant.

Off-road Equipment - Anticipated maximum (worst-case) day construction equipment during demolition.

Off-road Equipment - Anticipated construction equipment for excavation phase.

Demolition - Anticipated amount of demolition debris.

Grading - 325 cy of excavated soil during grading/excavation phase.

Vehicle Trips - No operational trips.

Area Coating -

Construction Off-road Equipment Mitigation -

Vehicle Emission Factors -

2015	3.0272	27.8173	19.1713	0.0302	0.7453	1.7325	2.4778	0.1371	1.6482	1.7854	0.0000	3,016.8363	3,016.8363	0.6021	0.0000	3,029.4812
Total	3.0272	27.8173	19.1713	0.0302	0.7453	1.7325	2.4778	0.1371	1.6482	1.7854	0.0000	3,016.8363	3,016.8363	0.6021	0.0000	3,029.4812

Mitigated Construction

Year	lb/day										lb/day					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2015	3.0272	27.8173	19.1713	0.0302	0.4659	1.7325	2.1515	0.1239	1.6482	1.7360	0.0000	3,016.8363	3,016.8363	0.6021	0.0000	3,029.4812
Total	3.0272	27.8173	19.1713	0.0302	0.4659	1.7325	2.1515	0.1239	1.6482	1.7360	0.0000	3,016.8363	3,016.8363	0.6021	0.0000	3,029.4812

Percent Reduction	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	0.00	0.00	0.00	0.00	37.49	0.00	13.17	9.68	0.00	2.77	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/3/2015	8/28/2015	5	20	
2	Grading and Excavation	Grading	8/31/2015	9/1/2015	5	2	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 0****Acres of Paving: 0**

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	7.00	81	0.73
Demolition	Other Construction Equipment	2	7.00	171	0.42
Demolition	Rubber Tired Dozers	0	1.00	255	0.40
Demolition	Skid Steer Loaders	1	7.00	64	0.37
Demolition	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading and Excavation	Concrete/Industrial Saws	0	8.00	81	0.73
Grading and Excavation	Excavators	1	8.00	162	0.38
Grading and Excavation	Rubber Tired Dozers	0	1.00	255	0.40
Grading and Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	49.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading and excavation	3	8.00	0.00	41.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Fugitive Dust					0.5350	0.0300	0.5350	0.0810	0.0000	0.0810		0.0000			0.0000		0.0000
Off-Road	2.9042	26.9469	17.4945	0.0262		1.7180	1.7180		1.6349	1.6349		2,639.6556	0.5897		2,652.0401		
Total	2.9042	26.9469	17.4945	0.0262	0.5350	1.7180	2.2530	0.0810	1.6349	1.7159		2,639.6556	0.5897		2,652.0401		

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0490	0.7774	0.5300	1.8300e-003	0.0427	0.0128	0.0555	0.0117	0.0118	0.0235		186.4675	186.4675	1.5200e-003		186.4993
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0740	0.0930	1.1469	2.1800e-003	0.1677	1.6800e-003	0.1693	0.0445	1.5300e-003	0.0460		190.7132	190.7132	0.0109		190.9418
Total	0.1230	0.8704	1.6769	4.0100e-003	0.2103	0.0145	0.2248	0.0562	0.0133	0.0695		377.1807	377.1807	0.0124		377.4411

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					0.2086	0.0000	0.2086	0.0316	0.0000	0.0316			0.0000			0.0000
Off-Road	2.9042	26.9469	17.4945	0.0262		1.7180	1.7180		1.6349	1.6349		0.0000	2,639.6556	0.5897		2,652.0401
Total	2.9042	26.9469	17.4945	0.0262	0.2086	1.7180	1.9267	0.0316	1.6349	1.6665		2,639.6556	2,639.6556	0.5897		2,652.0401

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0490	0.7774	0.5300	1.8300e-003	0.0427	0.0128	0.0555	0.0117	0.0118	0.0235		186.4675	186.4675	1.5200e-003		186.4993
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0740	0.0930	1.1469	2.1800e-003	0.1677	1.6800e-003	0.1693	0.0445	1.5300e-003	0.0460		190.7132	190.7132	0.0109		190.9418
Total	0.1230	0.8704	1.6769	4.0100e-003	0.2103	0.0145	0.2248	0.0562	0.0133	0.0695		377.1807	377.1807	0.0124		377.4411

3.3 Grading and Excavation - 2015**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Fugitive Dust					0.0502	0.0000	0.0502	6.2200e-003	0.0000	6.2200e-003			0.0000			0.0000
Off-Road	1.1373	11.7291	8.2904	0.0115		0.7774	0.7774		0.7152	0.7152		1,210.5304	1,210.5304	0.3614		1,218.1196
Total	1.1373	11.7291	8.2904	0.0115	0.0502	0.7774	0.8276	6.2200e-003	0.7152	0.7214		1,210.5304	1,210.5304	0.3614		1,218.1196

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day			
Hauling	0.4103	6.5045	4.4342	0.0153	0.3569	0.1072	0.4642	0.0977	0.0986	0.1964	1,560.2379	0.0127	1,560.5043	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.0395	0.0496	0.6117	1.1600e-003	0.0894	8.9000e-004	0.0903	0.0237	8.2000e-004	0.0245	101.7137	5.8000e-003	101.8356	
Total	0.4498	6.5541	5.0459	0.0165	0.4463	0.1081	0.5545	0.1214	0.0995	0.2209	1,661.9517	0.0185	1,662.3400	

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.0196	0.0000	0.0196	2.4300e-003	0.0000	2.4300e-003			0.0000			0.0000
Off-Road	1.1373	11.7291	8.2904	0.0115		0.7774	0.7774		0.7152	0.7152	0.0000	1,210.5304	1,210.5304	0.3614		1,218.1196
Total	1.1373	11.7291	8.2904	0.0115	0.0196	0.7774	0.7970	2.4300e-003	0.7152	0.7176	0.0000	1,210.5304	1,210.5304	0.3614		1,218.1196

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.4103	6.5045	4.4342	0.0153	0.3569	0.1072	0.4642	0.0977	0.0986	0.1964		1,560.2379	1,560.2379	0.0127		1,560.5043
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0395	0.0496	0.6117	1.1600e-003	0.0894	8.9000e-004	0.0903	0.0237	8.2000e-004	0.0245		101.7137	101.7137	5.8000e-003		101.8356

Total	0.4498	6.5541	5.0459	0.0165	0.4463	0.1081	0.5545	0.1214	0.0995	0.2209	1,661.9517	1,661.9517	0.0185	1,662.3400
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MWD Addendum No. 9 - Demolition and Excavation Emissions

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	2.80	1000sqft	0.06	2,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2015

Utility Company

CO2 Intensity (lb/MW/hr)	0	CH4 Intensity (lb/MW/hr)	0	N2O Intensity (lb/MW/hr)	0
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Anticipated demolition and grading phases of Washwater Reclamation plant.

Off-road Equipment - Anticipated maximum (worst-case) day construction equipment during demolition.

Off-road Equipment - Anticipated construction equipment for excavation phase.

Demolition - Anticipated amount of demolition debris.

Grading - 325 cy of excavated soil during grading/excavation phase.

Vehicle Trips - No operational trips.

Area Coating -

Construction Off-road Equipment Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -
Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	PhaseStartDate	8/29/2015	8/31/2015
tblGrading	AcresOfGrading	0.00	0.06
tblGrading	MaterialExported	0.00	325.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2015
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

[illegible]

2015	3.0334	27.8548	19.1826	0.0301	0.7453	1.7326	2.4779	0.1371	1.6483	1.7854	0.0000	3,005.7027	3,005.7027	0.6022	0.0000	3,018.3479
Total	3.0334	27.8548	19.1826	0.0301	0.7453	1.7326	2.4779	0.1371	1.6483	1.7854	0.0000	3,005.7027	3,005.7027	0.6022	0.0000	3,018.3479

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
2015	3.0334	27.8548	19.1826	0.0301	0.4659	1.7326	2.1515	0.1239	1.6483	1.7360	0.0000	3,005.7027	3,005.7027	0.6022	0.0000	3,018.3479
Total	3.0334	27.8548	19.1826	0.0301	0.4659	1.7326	2.1515	0.1239	1.6483	1.7360	0.0000	3,005.7027	3,005.7027	0.6022	0.0000	3,018.3479

ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	37.49	0.00	13.17	9.68	0.00	2.77	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/3/2015	8/28/2015	5	20	
2	Grading and Excavation	Grading	8/31/2015	9/1/2015	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	7.00	81	0.73
Demolition	Other Construction Equipment	2	7.00	171	0.42
Demolition	Rubber Tired Dozers	0	1.00	255	0.40
Demolition	Skid Steer Loaders	1	7.00	64	0.37
Demolition	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading and Excavation	Concrete/Industrial Saws	0	8.00	81	0.73
Grading and Excavation	Excavators	1	8.00	162	0.38
Grading and Excavation	Rubber Tired Dozers	0	1.00	255	0.40
Grading and Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	49.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading and Excavation	3	8.00	0.00	41.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2015

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					

Fugitive Dust					0.5350	0.0000	0.0810	0.0000	0.0810		0.0000			0.0000		0.0000
Off-Road	2.9042	26.9469	17.4945	0.0262		1.7180	1.7180	1.6349	1.6349		2,639.6556	0.5897		2,652.0401		
Total	2.9042	26.9469	17.4945	0.0262	0.5350	1.7180	2.2530	0.0810	1.6349	1.7159	2,639.6556	0.5897		2,652.0401		

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0521	0.8047	0.6074	1.8300e-003	0.0427	0.0129	0.0555	0.0117	0.0118	0.0235		186.0309	186.0309	1.5300e-003		186.0632
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0771	0.1031	1.0807	2.0600e-003	0.1677	1.6800e-003	0.1693	0.0445	1.5300e-003	0.0460		180.0161	180.0161	0.0109		180.2447
Total	0.1292	0.9079	1.6881	3.8900e-003	0.2103	0.0145	0.2249	0.0562	0.0134	0.0695		366.0471	366.0471	0.0124		366.3079

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					0.2086	0.0000	0.2086	0.0316	0.0000	0.0316			0.0000			0.0000
Off-Road	2.9042	26.9469	17.4945	0.0262		1.7180	1.7180	1.6349	1.6349	1.6349	0.0000	2,639.6556	2,639.6556	0.5897		2,652.0401
Total	2.9042	26.9469	17.4945	0.0262	0.2086	1.7180	1.9267	0.0316	1.6349	1.6665	0.0000	2,639.6556	2,639.6556	0.5897		2,652.0401

[illegible]

Category	lb/day										lb/day			
Hauling	0.4360	6.7336	5.0823	0.0153	0.3569	0.1076	0.4645	0.0977	0.0990	0.1967	1,556.5854	0.0128		1,556.8550
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Worker	0.0411	0.0550	0.5764	1.1000e-003	0.0894	8.9000e-004	0.0903	0.0237	8.2000e-004	0.0245	96.0086	5.8000e-003		96.1305
Total	0.4772	6.7886	5.6587	0.0164	0.4463	0.1085	0.5548	0.1214	0.0998	0.2212	1,652.5940	0.0186		1,652.9855

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.0196	0.0000	0.0196	2.4300e-003	0.0000	2.4300e-003			0.0000			0.0000
Off Road	1.1373	11.7291	8.2904	0.0115		0.7774	0.7774		0.7152	0.7152	0.0000	1,210.5304	1,210.5304	0.3614		1,218.1196
Total	1.1373	11.7291	8.2904	0.0115	0.0196	0.7774	0.7970	2.4300e-003	0.7152	0.7176	0.0000	1,210.5304	1,210.5304	0.3614		1,218.1196

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.4360	6.7336	5.0823	0.0153	0.3569	0.1076	0.4645	0.0977	0.0990	0.1967		1,556.5854	1,556.5854	0.0128		1,556.8550
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0411	0.0550	0.5764	1.1000e-003	0.0894	8.9000e-004	0.0903	0.0237	8.2000e-004	0.0245		96.0086	96.0086	5.8000e-003		96.1305

Total	0.4772	6.7886	5.6587	0.0164	0.4463	0.1085	0.5548	0.1214	0.0998	0.2212	1,652.5940	0.0186	1,652.3855
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APPENDIX B: Noise Calculations

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: #####

Case Description MWD Addendum No. 9 - Construction Noise Levels

---- Receptor #1 ----

Baselines (dBA)

Description Land Use	Daytime	Evening	Night
Mobile home Residential	70	60	50

Equipment

	Impact	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Description	Device					
Concrete Saw	No	20		89.6	255	0
Front End Loader	No	40		79.1	255	0
Backhoe	No	40		77.6	255	0
Crane	No	16		80.6	255	0
Man Lift	No	20		74.7	255	0

Results

Calculated (dBA)

Noise Limits (dBA)

			Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	75.4	68.4	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	65	61	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	63.4	59.4	N/A	N/A	N/A	N/A	N/A	N/A
Crane	66.4	58.4	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	60.5	53.6	N/A	N/A	N/A	N/A	N/A	N/A
Total	75.4	70	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Baselines (dBA)

Description Land Use	Daytime	Evening	Night
Single-family Residential	70	60	50

Equipment

	Impact	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Description	Device					
Concrete Saw	No	20		89.6	338	0
Front End Loader	No	40		79.1	338	0
Backhoe	No	40		77.6	338	0
Crane	No	16		80.6	338	0
Man Lift	No	20		74.7	338	0

Equipment	Results							
	Calculated (dBA)			Noise Limits (dBA)				
	*Lmax	Leq	Day	Leq	Evening		Night	
			Lmax		Lmax	Leq	Lmax	Leq
Concrete Saw	73	66	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	62.5	58.5	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	61	57	N/A	N/A	N/A	N/A	N/A	N/A
Crane	64	56	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	58.1	51.1	N/A	N/A	N/A	N/A	N/A	N/A
Total	73	67.6	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

[illegible]

[illegible]