

**Addendum to the  
Program Environmental Impact Report for the  
City of Corona Groundwater Management Plan for the  
Water Reclamation Facility #2 - Tertiary Filtration Project  
Corona, California**

Prepared by:



**City of Corona Department of Water and Power**  
755 Corporation Way  
Corona, CA 92880  
951.739.4912

Contact: Vernon R. Weisman, PE, Senior Utility Engineer

With technical assistance provided by:

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Michael E. Houlihan, AICP, Manager of Environmental Services



January 18, 2013





**NOTICE OF AVAILABILITY  
OF A  
ADDENDUM TO THE PROGRAM ENVIRONMENTAL IMPACT REPORT FOR THE  
CITY OF CORONA GROUNDWATER MANAGEMENT PLAN**

**NOTICE IS HEREBY GIVEN** that the City of Corona – Department of Water and Power has completed an assessment of the possible environmental effects of the following project and has determined that an Addendum to the City of Corona Groundwater Management Program Environmental Impact Report (PEIR) is appropriate. This determination has been made according to the California Environmental Quality Act (CEQA) and the State CEQA Guidelines.

The Addendum to the PEIR has identified that the proposed Water Reclamation Facility (WRF) #2 – Tertiary Filtration Project will not cause new or substantially greater impacts than the impacts addressed in the PEIR. Similar to the issues identified in the PEIR, the following significant effects associated with the proposed project that can be mitigated to less than significant: aesthetics, cultural resources, geology and soils, hazards and hazardous materials, transportation and traffic, and utilities and service systems. No significant and unavoidable effects pertaining to the proposed project were identified. Copies of the Addendum PEIR and all related documents are on file and available to the public through the City of Corona – Department of Water and Power located at 755 Corporation Yard Way, Corona, California. The Addendum PEIR is also available on the City of Corona – Department of Water and Power’s website at:

<http://www.discovercorona.com/City-Departments/Community-Development/Planning-Division.aspx>

1. **Project Name:** Water Reclamation Facility (WRF) #2 - Tertiary Filtration Project.
2. **Project Description:** The project site is located at the existing City of Corona WRF-2 in the northern portion of the City. More specifically, the filtration plant facilities are proposed to be constructed south of the existing chlorine contact tanks, east of the recently constructed microfiltration facility, and north of the equalization ponds. The project site also includes linear areas along the eastern, northern, and western boundaries of the existing WRF-2 facility. The proposed WRF-2 tertiary filtration project includes construction of the following improvements:
  - Filter feed pump station and wet well
  - Reinforced concrete filter structure consisting of:
    - Flocculation basin with mixer
    - Dual-media sand and anthracite filter with four filter beds and filter underdrain system
    - Backwash supply storage tank
    - Backwash wastewater equalization tank
  - Backwash water supply pump station
  - Backwash wastewater pump station
  - Blowers and air piping for an automated backwash air scour system
  - Emergency diesel-engine drive generator
  - Chemical (Sodium Hypochlorite and Coagulant) storage and feed system with chemical spill containment and shade cover
  - Chlorine contact basin (CCB) splitter box
  - Various secondary effluent, backwash water, treated water, and overflow yard piping
  - Site drainage improvements to provide stormwater retention, and
  - Motor controls, switchgear, electrical, and supervisory control and data acquisition (SCADA) improvements

The granular media filtration, backwash, and disinfection facility and appurtenances will be constructed south of the existing chlorine contact tanks (CCT) and east of the recently constructed microfiltration facility in the center of the treatment plant campus. The reinforced concrete filter structure will rise approximately 26 feet above finished grade. Adjacent concrete pads or wet well decks will house various pumps, blowers and mechanical equipment. Backwash wastewater will be pumped to the existing microfiltration facilities, treated to remove solids, with the product water combined with the granular media filter effluent for disinfection and routing through the CCTs.

The tertiary filtration facility and ancillary mechanical, utility and site improvements will be arranged on the site to provide room for chemical delivery trucks to drive through the site for deliveries. Drainage improvements that include curbs/gutters, concrete v-ditch, earthen swales, and two infiltration basins along the northern boundary of the WRF-2 facility are proposed. Each of the proposed infiltration basins will be designed to capture a two-year storm event and overflows will sheet flow to Harrison Street.

The project also includes the removal of the existing sludge mixing tank, scum decant, and associated piping. An existing 12-inch storm drain will be abandoned from the center of the WRF-2 facility to Temescal Creek right-of-way. The abandonment will be plugging and filling it with sand or slurry. No work is proposed beyond the existing boundary of the WRF-2 facility.

3. **Project Location:** The project site is within the WRF-2. This existing wastewater treatment facility is generally bound to the north by East Harrison Street, to the east by Temescal Creek, to the south by the BNSF railroad, and to the west by Joy Street.
4. **Applicant and Lead Agency:** The Applicant and the Lead Agency is the City of Corona – Department of Water and Power, 755 Corporation Yard Way, Corona, California.
5. **Contact Person:** Vernon R. Weisman, PE, Senior Project Engineer, City of Corona – Department of Water and Power, 755 Corporation Yard Way, Corona, California; Phone: (951) 279-3755; Email: Vernon.Weisman@ci.corona.ca.us.

**PUBLIC COMMENT** regarding the proposed project and/or adequacy of the Addendum PEIR will be accepted in writing on or before February 6, 2013 at the City of Corona – Department of Water and Power. The period for public review during which the City will receive comments on the Addendum PEIR will begin on January 22, 2013 and end on February 6, 2013.

At the time of this notice the date and time for the City of Corona to deliberate on the Addendum to the PEIR and the proposed project is not known. When a date and time for deliberation is known, the City will notice the meeting in accordance with City regulations.

**CITY OF CORONA**

**ADDENDUM TO THE PROGRAM ENVIRONMENTAL IMPACT REPORT FOR  
THE GROUNDWATER MANAGEMENT PLAN  
(October 2012)**

**A. PROJECT INFORMATION**

- 1. Project Title:** Water Reclamation Facility (WRF) #2 - Tertiary Filtration Project
- 2. Lead Agency Name and Address:** City of Corona  
755 Corporation Way, Corona, CA 92880
- 3. Contact Persons(s) and Phone Numbers:** Vernon R. Wesiman, PE, Senior Utility Engineer  
City of Corona Department of Water & Power  
**Numbers:** 951-739-4912
- 4. Project Location:** 650 East Harrison Street, Corona, CA 92879.

**INTRODUCTION & PROJECT DESCRIPTION:**

An Environmental Impact Report (“PEIR”) for the Groundwater Management Plan (“GWMP”) was adopted by the City Council of the City of Corona (“City”) in 2012. The GWMP identified eight categories of management strategies and defined 25 specific management strategies for implementation of the GWMP, which are intended to facilitate a sustainable groundwater resource supply for the City. The PEIR (incorporated herein by this reference) analyzed the environmental impacts of the GWMP and imposed mitigation measures set forth in a Mitigation Monitoring and Reporting Program (“MMRP”).

The City currently proposes to implement one of the projects, or “specific management strategies,” identified in the PEIR the Water Reclamation Facility (WRF) #2 Tertiary Filtration Project (the “Project”). The Project site is located at the existing City of Corona in the northern portion of the City at 650 East Harrison Street. More specifically, the filtration plant facilities are proposed to be constructed south of the existing chlorine contact tanks, east of the recently constructed microfiltration facility, and north of the equalization ponds. The Project site also includes linear areas along the eastern, northern, and western boundaries of the existing facility. The proposed Project includes construction of the following improvements:

- Filter feed pump station and wet well
- Reinforced concrete filter structure consisting of:
  - Flocculation basin with mixer
  - Dual-media sand and anthracite filter with four filter beds and filter system
  - Backwash supply storage tank
  - Backwash wastewater equalization tank
- Backwash water supply pump station
- Backwash wastewater pump station
- Blowers and air piping for an automated backwash air scour system

- Emergency diesel-engine drive generator
- Chemical (Sodium Hypochlorite and Coagulant) storage and feed system with chemical spill containment and shade cover
- Chlorine contact basin (CCB) splitter box
- Various secondary effluent, backwash water, treated water, and overflow yard piping
- Site drainage improvements to provide stormwater retention, and
- Motor controls, switchgear, electrical, and supervisory control and data acquisition (SCADA) improvements

**CEQA REQUIREMENTS FOR AN ADDENDUM:**

If changes to a project or its circumstances occur or new information becomes available after adoption of an EIR, the lead agency may: (1) prepare a subsequent EIR if the criteria of State CEQA Guidelines, § 15162(a) are met, (2) prepare an addendum, or (3) prepare no documentation. (State CEQA Guidelines, §§ 15162(a), 15164(a).) When only minor technical changes or additions to the EIR are necessary and none of the conditions described in section 15162 calling for the preparation of a subsequent EIR have occurred, CEQA allows the lead agency to prepare and adopt an addendum. (State CEQA Guidelines, § 15164(a).)

Under Section 15162, a subsequent EIR or negative declaration is required only when:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous 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 negative declaration due to the involvement of any 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 the negative declaration was adopted, shows any of the following:
  - (A) The project will have one or more significant effects not discussed
  - (B) Significant effects previously examined will be substantially more severe than shown in the previous
  - (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.

Thus, if the Project does not result in any of the circumstances listed in section 15162 (i.e., no new or substantially greater significant impacts), the City may properly adopt an addendum to the PEIR.

**ANALYSIS:**

The City presently proposes to construct the Water Reclamation Facility 2 Tertiary Filtration Project. The City has prepared an Environmental Evaluation of the Project (incorporated herein by this reference) to analyze all impacts associated with the Project and to determine whether any of the circumstances identified in State CEQA Guidelines section 15162 are present. As confirmed in the Environmental Evaluation, this Project will not cause new or substantially greater significant impacts, and thus the criteria set forth in section 15162 for the preparation of a subsequent or supplemental EIR are not present. Further, as in the Environmental Evaluation, all mitigation measures in the GWMP applicable to this Project will be implemented. Thus, pursuant to State CEQA Guidelines section 15164, the preparation and adoption of an Addendum to the PEIR is appropriate.

**CONCLUSION:**

Accordingly, and based on the findings and information contained in the previous PEIR, the Environmental Evaluation, and the CEQA statute and State CEQA Guidelines, including sections 15162, 15164, and 15168, the Project will not result in any additional effects on any environmental resources located on or near the project site and the potential environmental effects of the proposed Project have been adequately addressed in the approved PEIR, as modified by this Addendum.

**Attachment A:** “Environmental Evaluation for the Water Reclamation Facility (WRF) #2 Tertiary Filtration Project,” prepared for City of Corona, Department of Water and Power (October 8, 2012).

**Attachment B:** “Air Quality and Greenhouse Gas Methodology and Model Output Water Reclamation Facility (WRF) #2 Tertiary Filtration Project,” prepared for City of Corona, Department of Water and Power (July 3, 2012).



**Attachment A:**

**Environmental Evaluation for the Water Reclamation  
Facility (WRF) #2 Tertiary Filtration Project, prepared for  
City of Corona, Department of Water and Power  
(October 8, 2012)**



**Environmental Evaluation for the  
Water Reclamation Facility (WRF) #2 -  
Tertiary Filtration Project  
Corona, California**

Prepared for:



**City of Corona**  
**Department of Water & Power**  
755 Corporation Yard Way  
Corona, CA 92880  
951.279.3755

Contact: Vernon Weisman, Senior Utility Engineer

Prepared by:

**Michael Brandman Associates**  
220 Commerce, Suite 200  
Irvine, CA 92602  
714.508.4100

Contact: Michael E. Houlihan, AICP, Project Manager



October 8, 2012



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## SECTION 1: INTRODUCTION

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### 1.1 - Overview

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Water Reclamation Facility No. 2 (WRF2) is one of three wastewater reclamation facilities owned and operated by the City of Corona, Department of Water and Power (City). WRF2, located at 650 East Harrison Street, is a 3.0 million gallon per day (mgd) conventional treatment plant treating to secondary effluent standards. WRF2 consists of an influent lift station, headworks (screening and grit removal), primary clarifiers, primary equalization, aeration basins, and secondary clarifiers. Presently, tertiary treated wastewater from Water Reclamation Facility No. 1 (WRF1) and secondary treated wastewater from WRF2 is discharged to the Lincoln and Cota percolation ponds near Temescal Creek and the City Corporation Yard.

Discharge to the ponds is regulated under Regional Water quality Control Board (RWQCB) Order No. R8-2007-0005 for WRF1 and Order No. 98-03, as amended by R8-2007-0052, for WRF2. Following the City's submittal of a Report of Waste Discharge in 2009 for WRF2 to obtain waste discharge requirements for the proposed tertiary treatment upgrades, the RWQCB adopted Order No. R8-2009-0039 incorporating the City-proposed time schedule for new tertiary treatment facilities at WRF2. Order No. R8-2011-0015 re-issued waste discharge requirements for WRF2, replacing previous Order No. 98-03. To comply with the RWQCB requirements, the City is proposing to complete the tertiary treatment upgrades at WRF2 by April 10, 2014.

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### 1.2 - Purpose

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The following environmental evaluation addresses the potential effects associated with the proposed project and whether the potential effects were addressed in the Corona Groundwater Management Plan Program Environmental Impact Report (GWMP PEIR), or whether the potential effects are new significant effects or are substantial changes to the environmental evaluation provided in the Corona GWMP PEIR.

If the proposed project is expected to result in no impacts, the environmental issue is considered covered within the Corona GWMP PEIR. If the proposed project results in a less than significant impact, the Corona GWMP PEIR is reviewed to determine if the effect was addressed. If the effect in the PEIR was addressed as either a less than significant effect or a significant effect, it is considered covered for the environmental issue within the Corona GWMP PEIR. If the proposed project results in a significant effect, the Corona GWMP PEIR is reviewed to determine if the significant effect was addressed and whether the significant effect is substantially more severe. If the significant effect was addressed and determined not to be more substantially severe, the mitigation measure or measures in the Corona GWMP PEIR are reviewed. The proposed project is required to implement the mitigation measure or measures that the Corona GWMP PEIR identified for the significant effect. The

***Introduction***

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mitigation measure or measures identified for the proposed project could include more specific requirements as long as the intent of the mitigation measure or measures is consistent with the mitigation measure or measures in the Corona GWMP PEIR, and the impact is reduced to less than significant.

Therefore, if the significant effect of the proposed project is addressed in Corona GWMP PEIR and determined not to be more substantially severe, and the mitigation measure or measures addressed in the Corona GWMP PEIR are identified for the proposed project, the effect is considered covered for the environmental issue within the Corona GWMP PEIR. If all environmental effects identified for the proposed project are considered covered within the Corona GWMP PEIR, no new environmental document would be required as provided in the California Environmental Quality Act (CEQA) Guidelines Section 15168(c).

## SECTION 2: PROJECT DESCRIPTION

The project site is located at the existing City of Corona WRF2 in the northern portion of the City (Exhibit 1). More specifically, the filtration plant facilities are proposed to be constructed south of the existing chlorine contact tanks, east of the recently constructed microfiltration facility, and north of the equalization ponds. The project site also includes linear areas along the eastern, northern, and western boundaries of the existing WRF2 facility. The proposed WRF2 tertiary filtration project includes construction of the following improvements:

- Filter feed pump station and wet well
- Reinforced concrete filter structure consisting of:
  - Flocculation basin with mixer
  - Dual-media sand and anthracite filter with four filter beds and filter underdrain system
  - Backwash supply storage tank
  - Backwash wastewater equalization tank
- Backwash water supply pump station
- Backwash wastewater pump station
- Blowers and air piping for an automated backwash air scour system
- Emergency diesel-engine drive generator
- Chemical (Sodium Hypochlorite and Coagulant) storage and feed system with chemical spill containment and shade cover
- Chlorine contact basin (CCB) splitter box
- Various secondary effluent, backwash water, treated water, and overflow yard piping
- Site drainage improvements to provide stormwater retention, and
- Motor controls, switchgear, electrical, and supervisory control and data acquisition (SCADA) improvements

The granular media filtration, backwash, and disinfection facility and appurtenances will be constructed south of the existing chlorine contact tanks (CCT) and east of the recently constructed microfiltration facility in the center of the treatment plant campus as shown in the proposed site plan, Exhibit 2. The reinforced concrete filter structure will rise approximately 26 feet above finished grade. Adjacent concrete pads or wet well decks will house various pumps, blowers and mechanical equipment.

Backwash wastewater will be pumped to the existing microfiltration facilities, treated to remove solids, with the product water combined with the granular media filter effluent for disinfection and routing through the CCTs.

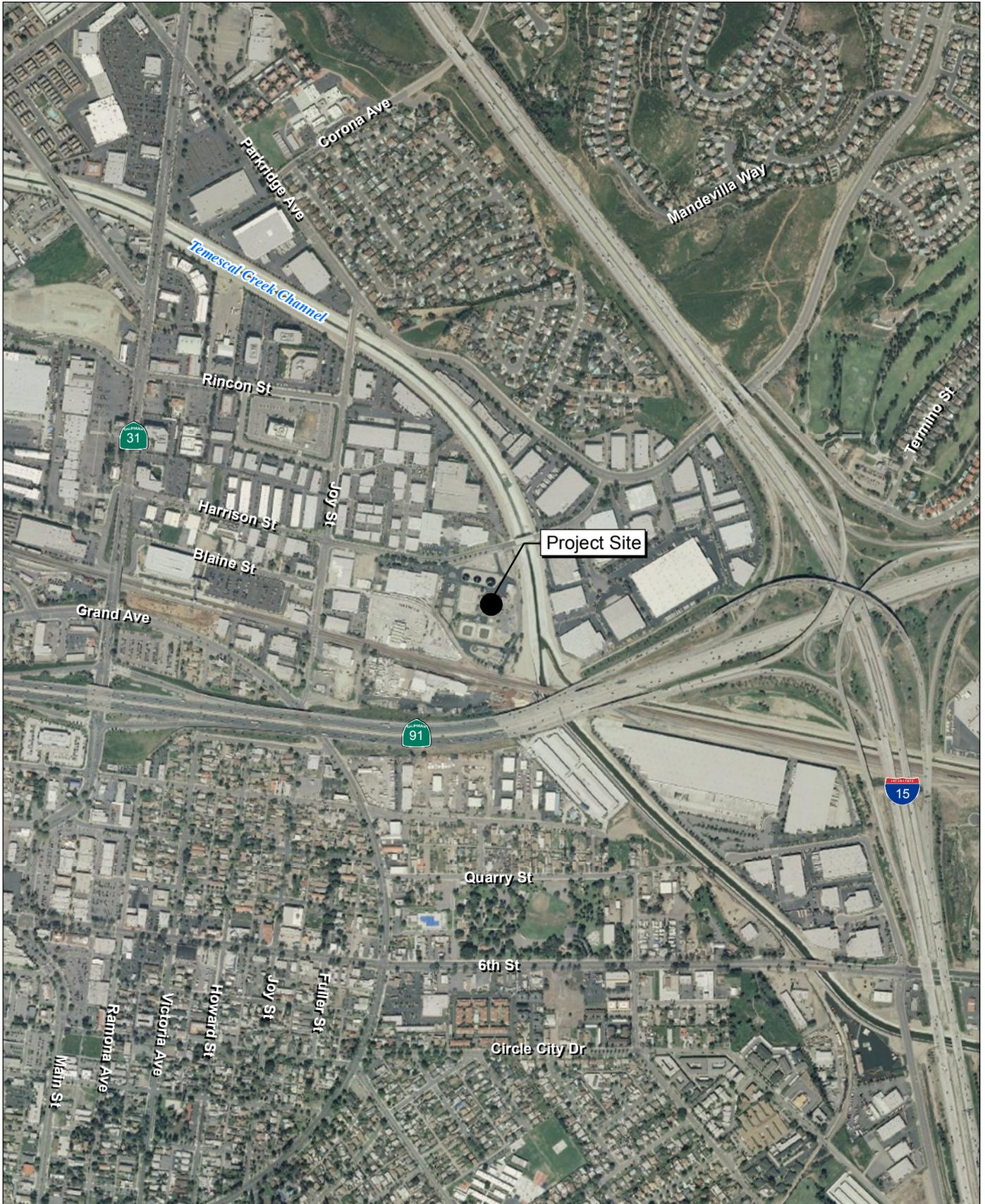
The tertiary filtration facility and ancillary mechanical, utility and site improvements will be arranged on the site to provide room for chemical delivery trucks to drive through the site for deliveries.

***Project Description***

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Drainage improvements that include curbs/gutters, concrete v-ditch, earthen swales, and two infiltration basins along the northern boundary of the WRF2 facility are proposed. Each of the proposed infiltration basins will be designed to capture a two-year storm event and overflows will sheet flow to Harrison Street.

The project also includes the removal of the existing sludge mixing tank, scum decant, and associated piping. An existing 12-inch storm drain will be abandoned from the center of the WRF2 facility to Temescal Creek right-of-way. The abandonment will be plugging and filling it with sand or slurry. No work is proposed beyond the existing boundary of the WRF2 facility.



Source: ESRI Aerial



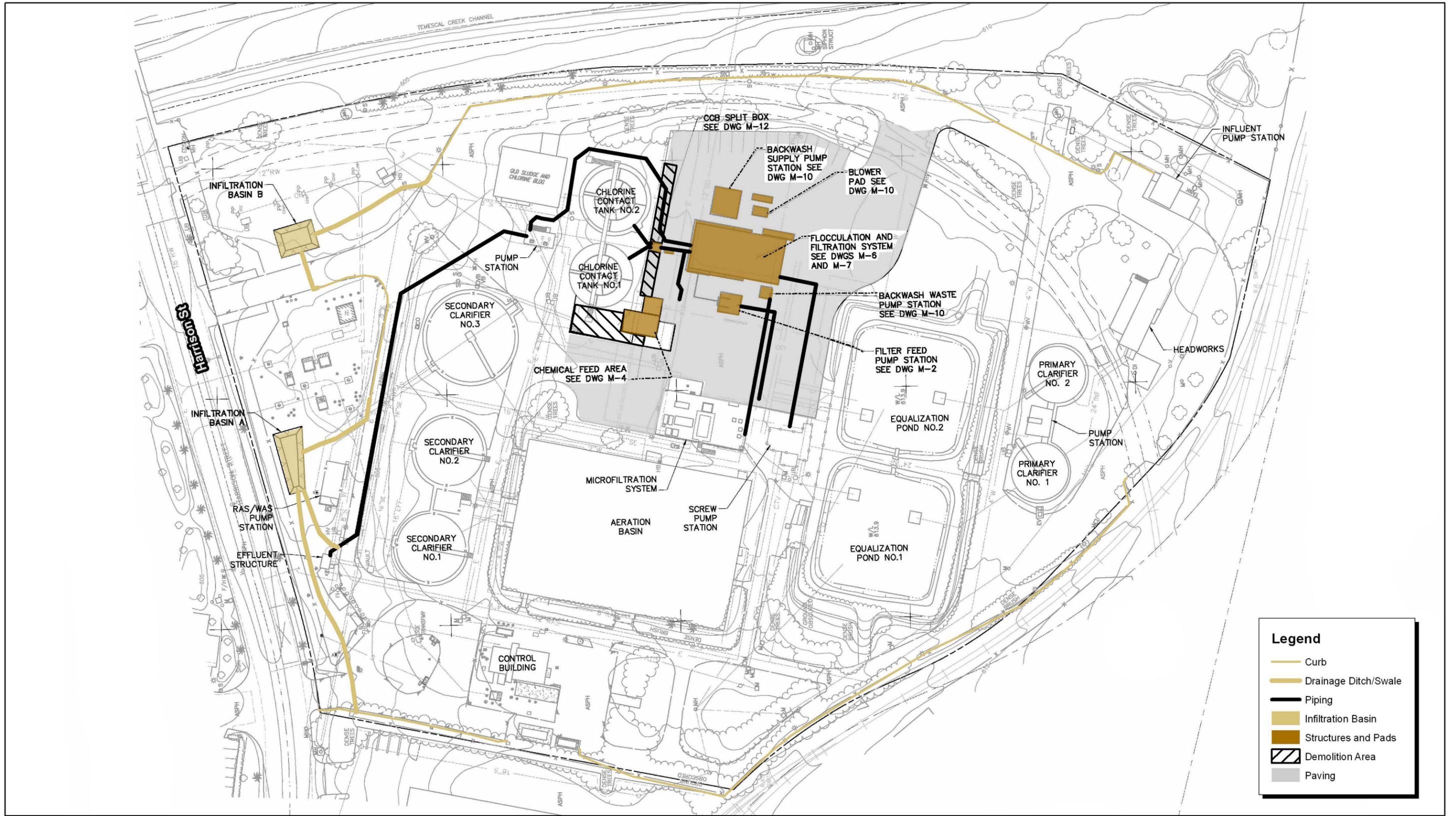
Michael Brandman Associates

01350044 • 09/2012 | 1\_local\_aerial.mxd



## Exhibit 1 Local Vicinity Map Aerial Base





Source: City of Corona



80 40 0 80 Feet

01350044 • 07/2012 | 1\_site\_plan.mxd  
 01350044 • 09/2012 | 2\_site\_plan.mxd

## Exhibit 2 Site Plan

CITY OF CORONA DEPARTMENT OF WATER & POWER  
 WATER RECLAMATION FACILITY (WRF) #2 - TERTIARY FILTRATION PROJECT  
 ENVIRONMENTAL EVALUATION



### **SECTION 3: CITY OF CORONA'S INITIAL STUDY FORM AND ENVIRONMENTAL CHECKLIST**

The following pages of Section 3 are the completed City of Corona's standard Initial Study form and Checklist.



## INITIAL STUDY

NOTE: The following is a sample form and may be tailored to satisfy project circumstances. It may be used to meet the requirements for an initial study when the criteria set forth in the State and Local CEQA Guidelines have been met. Substantial evidence of potential impacts that are not listed on this form must also be considered. The sample questions in this form are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

1. Project Title: Water Reclamation Facility (WRF) #2 - Tertiary Filtration Project

2. Lead Agency Name and Address:

City of Corona - Department of Water & Power

755 Corporation Yard Way

Corona, CA 92880

3. Contact Person and Phone Number: Vernon Weisman, 951.279.3755

4. Project Location: Southwest of Temescal Creek and E. Harrison Street at WRF#2

5. Project Sponsor's Name and Address:

City of Corona - Department of Water & Power

755 Corporation Yard Way

Corona, CA 92880

6. General Plan Designation: Utility      7. Zoning: Utility

8. Description of Project: (Describe the whole action involved, including, but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheet(s) if necessary.)

See Section 2, Project Description.

9. Surrounding Land Uses and Setting: (Briefly describe the project's surroundings.)

The project site is within WRF#2, north and west of site are Industrial Uses. Immediately south of the site is the BNSF Railroad and further south are Industrial Uses. Immediately east of the site is the concrete-lined Temescal Creek and further east are Industrial Uses.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

The project does not require discretionary approval from other public agencies. The Regional Water Quality Control Board needs to approve Storm Water Pollution Prevention Plan (SWPPP); however, this approval is administrative.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

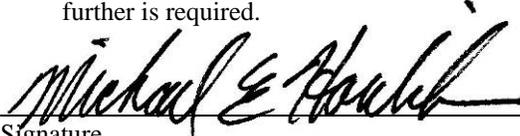
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Aesthetics               | <input type="checkbox"/> Agriculture Resources         | <input type="checkbox"/> Air Quality                        |
| <input type="checkbox"/> Biological Resources     | <input type="checkbox"/> Cultural Resources            | <input type="checkbox"/> Geology / Soils                    |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality          |
| <input type="checkbox"/> Land Use / Planning      | <input type="checkbox"/> Mineral Resources             | <input type="checkbox"/> Noise                              |
| <input type="checkbox"/> Population / Housing     | <input type="checkbox"/> Public Services               | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> Utilities / Service Systems   | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION (To be completed by the Lead Agency):

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

  
Signature

January 18, 2013  
Date

Michael Houlihan  
Printed Name

Tom Koper, PE, District Engineer  
For

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
- a) Earlier Analyses Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
- a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

**SAMPLE QUESTION**

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IV. BIOLOGICAL RESOURCES. Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>V. CULTURAL RESOURCES. Would the project:</b>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VI. GEOLOGY AND SOILS. Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18 1 B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IX. HYDROLOGY AND WATER QUALITY.  
Would the project:

a) During project construction, will it create or contribute Urban Runoff that would violate any water quality standards or waste discharge requirements, including the term's of the City's municipal separate stormwater sewer system permit? For purposes of Section VIII, "Urban Runoff" is defined as stormwater and non-stormwater discharges from residential, commercial, industrial, and construction areas. "Urban Runoff" does not include discharges from feedlots, dairies, farms, or open space.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) After the project is completed, will it create or contribute Urban Runoff that would violate any water quality standards or waste discharge requirements, including the terms of the City's municipal separate stormwater sewer system permit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Provide for the discharge of substantial additional sources of pollutants into Urban Runoff, including pollutants discharged from delivery areas; loading docks; other areas where materials are stored, vehicles or equipment are fueled or maintained, waste is handled, or hazardous materials are handled or delivered; other outdoor work areas; or other sources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Discharge pollutants in Urban Runoff so that one or more Beneficial Uses of receiving waters are adversely affected? "Beneficial Uses" include all uses of water necessary for the survival or well-being of man, plants and wildlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Discharge stormwater so that significant harm is caused to the biological integrity of waterways or water bodies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Significantly increase erosion, either on or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
j) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
k) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
l) Significantly alter the flow velocity or volume of stormwater runoff in a manner that results in environmental harm?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
m) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
n) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
p) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
q) Expose people or structures to inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>XI. MINERAL RESOURCES. Would the project:</b>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>XII. NOISE. Would the project result in:</b>				
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

XIII. POPULATION AND HOUSING. Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XIV. PUBLIC SERVICES. Would the project:

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>XV. RECREATION. Would the project:</b>				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>XVI. TRANSPORTATION / TRAFFIC. Would the project:</b>				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XVII. UTILITIES AND SERVICE SYSTEMS.**

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? In making this determination, the Lead Agency shall consider whether the project is subject to the water supply assessment requirements of Water Code Section 10910, et seq. (SB 610), and the requirements of Government Code Section 664737 (SB 221).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE**

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Note: Authority cited: Sections 21083, 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080, 21083.05, 21095, Pub. Resources Code; Eureka Citizens for Responsible Govt. v. City of Eureka (2007) 147 Cal.App.4th 357; Protect the Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal.App.4th at 1109; San Franciscans Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656.

Revised 2009



## **SECTION 4: DISCUSSION OF ENVIRONMENTAL EVALUATION**

The following evaluation addresses whether the potential effects associated with the proposed Tertiary Filtration Project (proposed project) are new significant effects or are substantial changes to the environmental evaluation provided in the GWMP PEIR. Each environmental issue heading under each topical issue is followed by a reference to the corresponding CEQA Checklist item and a discussion of the potential environmental effects. In addition, a discussion of the potential cumulative impacts is provided for each topical environmental issue.

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### **4.1 - Aesthetics**

#### **4.1.1 - Scenic Vista**

Response to CEQA Checklist Item I.a.

Based on review of the Corona GWMP PEIR, GWMP management strategies may be located in areas that provide views of City- and County-designated scenic vistas, and these improvements may result in significant impacts on scenic vistas. However, most GWMP management strategies would result in existing infrastructure upgrades, such as upgrading of existing wastewater treatment plants, which typically occur in built-up or disturbed areas where the additions are considered consistent with the existing viewshed and that the upgrades would have little effect on the overall quality of designated vistas. These effects are considered less than significant.

The project is not located within a scenic vista. The construction and operation of the proposed project is located at the existing WRF2 facilities, and the project structures will add to the current urban viewshed from the surrounding roadway network. The nearest residences to the project site are located approximately 1,000 feet northeast of the project site; however, the residences do not have views of the site because there are intervening structures and landscaping. The addition of the proposed structures will result in a less than significant impact on scenic vistas. Therefore, no new significant effects or substantial changes to the environmental evaluation of scenic vistas provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.1.2 - Scenic Resources within a State Scenic Highway**

Response to CEQA Checklist Item I.b.

The Corona GWMP PEIR identifies that the nearest State designated scenic highways are State Route (SR) 243 and SR-74. These designated segments are located well to the east of the project site. Therefore, the components of the GWMP would have no impact on scenic resources within a scenic highway corridor.

The nearest state designated scenic highways are also located well to the east of the project site. The construction and operation of the proposed project would have not impact on scenic resources within a scenic highway corridor. Therefore, no new significant effects or substantial changes to the environmental evaluation of scenic resources within a scenic highway corridor provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.1.3 - Visual Character**

Response to CEQA Checklist Item I.c.

Based on review of the Corona GWMP PEIR, the implementation of the GWMP would require construction and operation of new and expanded facilities that would intensify development in specific areas. The PEIR identified that new aboveground structures could contrast with the surrounding landscape and existing visual character of a site and result in significant impacts on the existing visual character.

The proposed project is located at the existing WRF2 facilities, which provide a limited urban viewshed from the surrounding roadway network. Because the additional facilities that are proposed would continue to provide a similar visual character as the existing WRF2 facilities, the construction and operation of the project would result in a less than significant impact on the visual character of the project area. Therefore, no new significant effects or substantial changes to the environmental evaluation of visual character provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.1.4 - Light or Glare**

Response to CEQA Checklist Item I.d.

The Corona GWMP PEIR identifies the management strategies as not resulting in light impacts during construction because construction would be limited during the day. The PEIR also identifies the construction activities could generate glare from windshield or equipment reflection, but the level of impact would be less than significant because the equipment would be moving.

Construction activities associated with the proposed WRF2 facilities would result in similar no impacts as discussed in the PEIR and similar less than significant glare impacts because construction equipment would be moving.

The PEIR also addressed potential light and glare impacts associated with the management strategies such as the expansion of wastewater treatment plants. Two mitigation measures are provided to reduce potential light and glare impacts to less than significant. The implementation of the proposed project also includes structures that will include permanent sources of light for security purposes and glare from the proposed structures. To similarly reduce potential light and glare impacts to less than

significant, the following two mitigation measures from the PEIR will be required with the implementation of the proposed project.

**MM 3.1-3a:** Exterior lighting associated with aboveground features shall be shielded and directed downward.

**MM 3.1-3b:** Aboveground facilities shall be constructed with non-glare exterior coatings that are colored to blend in with the surrounding landscape.

Based on the above discussion, there are no new significant effects or substantial changes to the environmental evaluation of light and glare provided in the Corona GWMP PEIR that would occur with the implementation of the proposed project.

#### **4.1.5 - Cumulative Impacts**

The PEIR identified that the geographic scope for the assessment of cumulative impacts associated with other scenic resources includes the City and its Sphere of Influence (SOI). The PEIR states that the GWMP management strategies could contribute to significant cumulative impacts on scenic vistas, visual character, and light and glare. No impacts on scenic resources within a State scenic highway were identified for the GWMP management strategies. The PEIR states that the project mitigation measures identified for the GWMP management strategies would reduce its impacts to less than cumulatively considerable and therefore less than significant.

The proposed project would result in less than significant impacts on scenic vistas and visual character. The project's contribution to cumulative impacts on scenic vistas and visual character would be less than cumulatively considerable because the permanent aboveground facilities of the project would not obstruct views of scenic vistas and would provide a similar visual character as the existing WRF2 facilities. The project also would result in a similar no impact on scenic resources within a State scenic highway as discussed in the PEIR because the nearest State designated scenic highways are located well to the east of the project site. In addition, the project could contribute to significant cumulative light and glare impacts. The implementation of Mitigation Measures 3.1-3a and 3.1-3b would reduce the project's contribution to less than cumulatively considerable and therefore less than significant.

Based on the above discussion, there are no new significant effects or substantial changes to the environmental evaluation of cumulative impacts on aesthetic resources provided in the Corona GWMP PEIR that would occur with the implementation of the proposed project.

## **4.2 - Agriculture and Forest Resources**

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### **4.2.1 - Farmland Conversion**

Response to CEQA Checklist Item II.a.

Based on review of the Corona GWMP PEIR, the implementation of the GWMP would result in new facilities or upgrades to existing infrastructure in the City and the sphere of influence. The PEIR states that it is highly unlikely that farmland would be converted. Based on review of Figure 3.2-1 (Agricultural Resources) in the PEIR, there are no areas with farmland designations in the immediate vicinity of the WRF2 facilities. In addition, the proposed project will be located at the existing WRF2 facilities that contain impervious surfaces. Therefore, no new significant effects or substantial changes to the environmental evaluation of farmland provided in the Corona GWMP PEIR would occur with the implementation of the proposed project. Furthermore, since the proposed project would not result in potential impacts to farmland, no mitigation measures are required with the implementation of the proposed project.

### **4.2.2 - Conflict with Agricultural Zoning or Williamson Act Contract**

Response to CEQA Checklist Item II.b.

The Corona GWMP PEIR states that the City of Corona currently has small areas of Williamson Act contracts; however, there are no areas in the immediate vicinity of the proposed project that are under a Williamson Act contract. Therefore, no new significant effects or substantial changes to the environmental evaluation of land under Williamson Act contracts provided in the Corona GWMP PEIR would occur with the implementation of the proposed project. Furthermore, since the proposed project would not result in potential impacts to land under Williamson Act contracts, no mitigation measures are required with the implementation of the proposed project.

### **4.2.3 - Conflict with Forest Land or Timberland Zoning**

Response to CEQA Checklist Item II.c.

Although the Corona GWMP PEIR does not address impacts to forest land, forestry or timberland, the proposed project will have no impact in this regard because the project site is currently within a developed area in the center of the existing WRF2 facilities. The project site contains no forest land nor is it zoned for forest land, timberland or timberland zoned Timberland Production. Therefore, no new significant effects or substantial changes to the environmental evaluation of forest land or timberland provided in the Corona GWMP PEIR would occur with the implementation of the proposed project. Furthermore, since the proposed project would not result in potential impacts to forest or timberland, no mitigation measures are required with the implementation of the proposed project.

#### **4.2.4 - Loss or Conversion of Forest Land**

Response to CEQA Checklist Item II.d.

As described above, the project will not result in the loss or conversion of forest land. Therefore, the project will have no impact in this regard, and no mitigation is required.

#### **4.2.5 - Other Farmland or Forest Land Conversions**

Response to CEQA Checklist Item II.e.

As described above, the project will have no impact to farmland or forest land and no mitigation is required. There are no other changes associated with the proposed project that could result in the conversion of farmland or forest land. Therefore, there will be no impacts in this regard.

Based on the above discussion, there are no new significant effects or substantial changes to the environmental evaluation of agricultural or forestry resources provided in the Corona GWMP PEIR that would occur with the implementation of the proposed project.

#### **4.2.6 - Cumulative Impacts**

The PEIR identified that the geographic context for cumulative impacts associated with agricultural resources is the City and its sphere of influence. The PEIR states that the implementation of individual management strategies associated with the GWMP could have incremental impacts to farmland. Because the proposed project would result in no impacts to agricultural resources or forest resources, the project would not contribute to potential cumulative impacts on agricultural resources or forest resources. Therefore, the proposed project would result in no cumulative impacts on agricultural resources or forest resources, and no mitigation measures are required.

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### **4.3 - Air Quality**

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The project is located in the South Coast Air Basin, which is in nonattainment for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>. The project is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD), which provides recommendations and thresholds for CEQA analyses. For a full description of air quality and greenhouse gases, please refer to the PEIR. To ensure consistency with the PEIR, Michael Brandman Associates performed air quality and greenhouse gas modeling. The methodology and modeling are available for review at the Corona Department of Water & Power at 755 Corporation Yard Way, Corona, California, 92880. The results of the modeling are summarized below.

#### **4.3.1 - Air Quality Plan**

Response to CEQA Checklist Item III.a.

According to the SCAQMD's 1993 CEQA Handbook, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

As shown in Section 4.3.2 below, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

If a project's emissions exceed the SCAQMD regional thresholds for NO<sub>x</sub>, VOC, PM<sub>10</sub>, or PM<sub>2.5</sub>, it follows that the emissions could cumulatively contribute to an exceedance of a pollutant for which the basin is in nonattainment (ozone, nitrogen dioxide, PM<sub>10</sub>, PM<sub>2.5</sub>) at a monitoring station in the basin. An exceedance of a nonattainment pollutant at a monitoring station would not be consistent with the goals of the AQMP, which is to achieve attainment of pollutants. As discussed in Section 4.3.2, the project would not exceed the regional significance thresholds during construction or operation.

#### **4.3.2 - Violate Air Quality Standard**

Response to CEQA Checklist Item III.b.

According to the GWMP PEIR, the construction of the management strategies would result in temporary emissions of criteria pollutants, and depending on the combination of construction activities, the (SCAQMD) air emissions thresholds may be exceeded and result in a significant and unavoidable impact. The PEIR identified mitigation measures (Mitigation Measures 3.4-1a through 3.4-1f) to reduce air emissions; however, impacts would remain significant.

Implementation of the proposed project would increase air emissions during construction and operational activities. Construction activities include site preparation, earthmoving, and general construction. Earthmoving activities include cut-and-fill operations, trenching, soil compaction, and grading. General construction includes adding improvements such as paving, structures, and facilities. Emissions would include (1) dust (i.e., particulate matter - PM<sub>10</sub> and PM<sub>2.5</sub>) from soil disturbance, (2) combustion emissions such as reactive organic gases (ROG), oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), PM<sub>10</sub>, and PM<sub>2.5</sub> from operation of construction equipment and construction worker automobile trips, and (3) evaporative emissions such as ROG from asphalt paving and architectural coatings.

To determine if the project would violate an air quality standard, the California Emissions Estimator Model (CalEEMod) version 2011.1 was used to calculate emissions and compare them to the regional significance thresholds and the localized significance thresholds. As shown below in Table 1, Table 2, and Table 3, the proposed project would not exceed either the regional significance thresholds or the localized significance thresholds.

**Table 1: Construction Air Pollutant Regional Emissions**

Source	Emissions (pounds per day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Trenching and pipe laying	1.3	9.9	6.9	0.0	0.7	0.6
Backfill	6.1	47.8	20.1	0.1	2.4	2.3
Compact, paving	6.3	18.0	9.6	0.0	1.3	1.2
Treatment plant grading	3.9	34.6	17.0	0.0	4.5	2.7
Treatment plant construction	3.6	32.0	12.7	0.0	1.7	1.3
<b>Maximum Daily Emissions</b>	<b>6.3</b>	<b>47.8</b>	<b>20.1</b>	<b>0.1</b>	<b>4.5</b>	<b>2.7</b>
Significance Threshold	75	100	550	150	150	55
Significant Impact?	No	No	No	No	No	No
Notes: The maximum daily emissions refer to the maximum emissions that would occur in one day; it was assumed that the grading activities do not occur at the same time as the other construction activities; therefore, their emissions are not summed. VOC = volatile organic compounds      NO <sub>x</sub> = nitrogen oxides      CO = carbon monoxide SO <sub>x</sub> = sulfur oxides      PM <sub>10</sub> and PM <sub>2.5</sub> = particulate matter Source of emissions: Michael Brandman Associates 2012 (onsite and offsite emissions from CalEEMod output) Source of thresholds: South Coast Air Quality Management District 2011.						

**Table 2: Construction Air Pollutant Localized Emissions**

Activity	Onsite Emissions (pounds per day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Trenching and pipe laying	9.3	6.3	0.6	0.6
Backfill	47.1	19.3	2.3	2.3
Compact, paving	16.8	8.6	1.2	1.2
Treatment plant grading	28.8	14.2	3.9	2.5
Treatment plant construction	27.3	9.8	1.1	1.1
<b>Maximum Daily Emissions</b>	<b>47.1</b>	<b>19.3</b>	<b>3.9</b>	<b>2.5</b>
Localized Significance Threshold	200	1474	123	49
Exceed Threshold?	No	No	No	No
Notes: Each of the above activities does not occur at the same time; therefore, the maximum daily emissions represent the maximum emissions that would occur in one day. Source of emissions: Michael Brandman Associates 2012 (onsite emissions only from CalEEMod output) Source of thresholds: South Coast Air Quality Management District 2009, for Source Receptor Area 22 for a 2-acre site. The thresholds for nitrogen dioxide and CO are based on the distance to the nearest worker (50 meters) because those pollutants have an averaging time for 8 hours or less and workers would be onsite for 8 hours. The thresholds for PM10 and PM2.5 are based on the distance to the nearest sensitive receptor (the threshold was interpolated for 300 meters based on the thresholds at 200 and 500 meters).				

**Table 3: Operational Air Pollutant Regional Emissions**

Source	Emissions (pounds per day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Delivery trucks	0.2	2.4	1.0	0.0	0.2	0.1
Significance Threshold	55	55	550	150	150	55
Significant Impact?	No	No	No	No	No	No
Notes: VOC = volatile organic compounds      NO <sub>x</sub> = nitrogen oxides      CO = carbon monoxide SO <sub>x</sub> = sulfur oxides                              PM <sub>10</sub> and PM <sub>2.5</sub> = particulate matter Source of emissions: Michael Brandman Associates 2012 Source of thresholds: South Coast Air Quality Management District 2011.						

No new significant effects or substantial changes to the environmental evaluation of violations of air quality standards provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

**4.3.3 - Cumulatively Increase Criteria Pollutant**

Response to CEQA Checklist Item III.c.

See Cumulative Impacts response below.

**4.3.4 - Sensitive Receptors**

Response to CEQA Checklist Item III.d.

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities. Commercial and industrial facilities are not included in the definition because employees do not typically remain onsite for 24 hours. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as nitrogen dioxide and carbon monoxide), commercial and/or industrial facilities would be considered sensitive receptors for those purposes. The nearest sensitive receptor is located more than 1,000 feet (300 meters) from the project site. The nearest offsite worker is located across the street approximately 275 feet (84 meters) from the project site.

The GWMP PEIR identified that the management strategies could affect sensitive receptors that are in close proximity to construction and operation activities; however, the potential impacts would be less than significant.

Project emissions resulting from construction activities were evaluated in accordance with the SCAQMD’s localized significance threshold methodology. The thresholds are developed based on

the ambient concentrations of a pollutant for each source receptor area and on the location of the sensitive receptor. If the project results in emissions under those thresholds, it follows that the project would not cause or contribute to an exceedance of the standard. The standards are set to protect the health of sensitive individuals. If the standards are not exceeded at the sensitive receptor locations, it follows that the receptors would not be exposed to substantial pollutant concentrations. As shown in Table 2, the construction activities associated with the project would not exceed the SCAQMD's localized thresholds for the project. Therefore, construction emissions would not result in significant health effects to sensitive receptors.

The onsite criteria pollutants during operation activities would consist of the occasional worker vehicle and delivery truck at the tertiary filtration facilities. These emissions would be minimal. Considering the quantity of emissions generated, the location of the sensitive receptors (approximately 1,000 feet north of the project site), and the estimated dispersion of air pollutants, this impact would be less than significant.

No new significant effects or substantial changes to the environmental evaluation of air emissions affecting sensitive receptors provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.3.5 - Create Objectionable Odors**

Response to CEQA Checklist Item III.e.

The GWMP PEIR identifies that the management strategies may generate objectionable odors from the use of heavy equipment, application of paints, and paving operations. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents. Mandatory compliance with the SCAQMD Rules would assure construction activities would not exceed applicable thresholds. As a result, potential odor impacts were found to be less than significant.

The proposed project would also have the potential to generate objectionable odors; however, construction activities would be required to comply with Rule 1113. Odor during construction would be intermittent, dispersed quickly, and would cease in the evenings during the most sensitive time periods. Because the nearest sensitive receptors to the project are approximately 1,000 feet to the north, potential odor impacts during construction would be less than significant.

The GWMP PEIR identifies that the management strategies are not anticipated to include activities that would result in objectionable odors. Treatment upgrades at the wastewater reclamation plants would reduce objectionable odors, and as a result the PEIR found that potential odor impacts would be less than significant.

The implementation of the proposed project includes the addition of a tertiary filtration process that could periodically increase odors; however, since the nearest sensitive receptors to the project are

**Discussion of Environmental Evaluation**

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approximately 1,000 feet to the north, potential odor impacts during operation of the tertiary filtration process would be less than significant.

No new significant effects or substantial changes to the environmental evaluation of odor emissions provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.3.6 - Cumulative Impacts**

According to the GWMP PEIR, the implementation of the management strategies would not contribute considerably to the significantly impacted South Coast Air Basin. Because the proposed project would not exceed any air quality standards and the project is consistent with the Air Quality Management Plan due to the project's consistency with the City's General Plan, the proposed project's impact on air quality is less than cumulatively considerable and thus less than cumulatively significant.

No new significant effects or substantial changes to the environmental evaluation of cumulative air emissions in the Corona GWMP PEIR would occur with the implementation of the proposed project.

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### **4.4 - Biological Resources**

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#### **4.4.1 - Effect on Species**

Response to CEQA Checklist Item IV.a.

Based on review of the Corona GWMP PEIR, the implementation of the GWMP could result in potential impacts to candidate, sensitive, and special status wildlife and plant species. However, the proposed project site is already developed with the existing WRF2 facilities and as such, does not contain any biologically sensitive areas. Therefore, no new significant effects or substantial changes to the environmental evaluation of candidate, sensitive, or special status wildlife or plant species provided in the Corona GWMP PEIR would occur with the implementation of the proposed project. Furthermore, since the proposed project would not result in potential impacts to candidate, sensitive, or special status wildlife or plant species, no mitigation measures are required with the implementation of the proposed project.

#### **4.4.2 - Riparian Habitat and Federally Protected Wetlands**

Response to CEQA Checklist Items IV.b and IV.c.

Implementation of the GWMP would result in projects throughout the City and sphere of influence that could potentially affect waters of the U.S. and State. However, the site of the proposed project at the WRF2 facility does not have waters of the U.S. or State, and therefore no impacts to riparian or wetland habitat would occur, and no mitigation measures are required.

#### **4.4.3 - Wildlife Movement**

Response to CEQA Checklist Item IV.d.

Based on review of the Corona GWMP PEIR, the implementation of management strategies under the GWMP within the City and its sphere of influence would occur primarily in areas that are developed and as such, have already been previously disturbed. Management strategies primarily involve additions/modifications to existing facilities. According to the PEIR, the GWMP would have a less than significant impact, and no mitigation is required. The site of the proposed project is located on developed land that includes the existing WRF2 facilities. Because the project site is developed and contains no habitat for species that could be used for wildlife movement, the implementation of the proposed project would result in no impacts to wildlife movement, and no mitigation measures are required. Therefore, no new significant effects or substantial changes to the environmental evaluation of wildlife movement provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.4.4 - Conflict with Local Policies/Ordinances and Conservation Plans**

Response to CEQA Checklist Items IV.e and IV.f.

Implementation of the proposed GWMP would occur within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP); however, the GWMP facilities will include additions and/or alterations to existing, previously improved facilities. The GWMP facilities are not expected to be adjacent or in close proximity to conserved or protected areas and are not expected to interface with natural lands due to highly developed nature of the City. The site of the proposed project is located on developed land that includes the existing WRF2 facilities. Because the project site is developed and contains no habitat for sensitive species, the project would result in no impacts to the Western Riverside County MSHCP. Therefore, no new significant effects or substantial changes to the environmental evaluation of habitat conservation plan/natural community conservation plan and local policies and ordinances provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.4.5 - Cumulative Impacts**

According to the PEIR for the Corona GWMP, the locations of the GWMP facilities are in primarily developed areas with few patches of native habitat in the project vicinity, particularly Temescal Creek Flood Control Channel that connects to Prado Basin. Because the project site is developed and contains no habitat for sensitive species, the project would result contribute to potential cumulative impacts on biological resources. Therefore, no new significant effects or substantial changes to cumulative impacts on biological resources provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

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## 4.5 - Cultural Resources

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### 4.5.1 - Historic and Archaeological Resources

Response to CEQA Checklist Items V.a and V.b.

The Corona GWMP PEIR identifies that the majority of the GWMP management strategies would involve upgrading and replacing existing infrastructure in previously disturbed areas. However, construction activities associated with replacing and adding infrastructure could affect known and previously unknown historical and archaeological resources. The GWMP PEIR identifies the implementation of four mitigation measures (Mitigation Measures 3.5-1c through 3.5-1f) for the construction of the GWMP management strategies.

The project site was previously the site of the citrus packinghouses. Many of them were removed to construct the WRF2 facilities. City staff has identified soil was excavated to approximately seven feet below ground surface during the construction of the existing WRF2 facilities. Based on a review of historical and archaeological resources information at the Eastern Information Center at U.C. Riverside, there are no known resources in the area proposed for the WRF Filtration facilities. However, since the site is located in close proximity of Temescal Creek, previous disturbance of the site soils occur to seven feet below ground surface, and the proposed project may result in the disturbance of soils to twelve feet below ground surface, there is a potential for archaeological resources to be found below seven feet beneath the ground surface. Therefore, construction activities associated with the proposed project could result in significant impacts on cultural resources, but the potential impacts would be reduced to less than significant with the implementation of the following Mitigation Measure 3.5-1c and 3.5-1f. Mitigation Measure 3.5-1f has been nominally revised to identify the area beneath the ground surface that requires monitoring.

**MM 3.5-1f:** The City of Corona shall retain qualified archaeological monitors during construction for ground-disturbing activities below seven feet from existing ground surface that have the potential to impact significant archaeological remains as determined by a qualified archaeologist.

**MM 3.5-1c:** In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the City shall consult with a qualified archaeologist to assess the significance of the find. If any find is determined to be significant, representatives of the City and the qualified archaeologist would meet to determine the appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.

No new significant effects or substantial changes to the environmental evaluation of historical and archaeological resources provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.5.2 - Paleontological Resources**

Response to CEQA Checklist Item V.c.

The Corona GWMP PEIR identifies that construction activities associated with the GWMP management strategies could encounter paleontological resources during excavations. The implementation of the proposed project will also include excavations. As a result, the construction activities could result in a significant impact on paleontological resources. As identified in the PEIR, the following Mitigation Measure 3.5-2 would reduce potential impacts to paleontological resources to less than significant.

**MM 3.5-2:** Accidental discovery of paleontological resources. If paleontological resources are encountered during the course of construction and monitoring, the City shall halt or divert work and notify a qualified paleontologist who shall document the discovery as needed, evaluate the potential resource, assess the significance of the find, and develop an appropriate treatment plan.

No new significant effects or substantial changes to the environmental evaluation of paleontological resources provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.5.3 - Human Remains**

Response to CEQA Checklist Item V.d.

Based on a review of the Corona GWMP PEIR, buried human remains are not anticipated to be encountered during the implementation of the GWMP management strategies. However, the PEIR states that in the event of unexpected discovery of human remains, there could be significant impacts. Therefore, as identified in the PEIR, the following Mitigation Measure 3.5-3 would reduce potential impacts to human remains to less than significant.

**MM 3.5-3:** If human remains are uncovered during Project construction, the City shall immediately halt work, contact the County Coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission. The NAHC will then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who will then help determine what course of action should be taken in dealing with the remains.

No new significant effects or substantial changes to the environmental evaluation of human remains provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.5.4 - Cumulative Impacts**

According to the PEIR for the Corona GWMP, it is possible that cumulative development within the City and sphere-of-influence could result in the adverse modification or destruction of historic resources, archaeological resources and other buried resources. The implementation of the proposed project could contribute to this cumulative impact. The implementation of Mitigation Measures 3.5-1c, 3.5-2, and 3.5-3 with the construction of the proposed project would reduce the project's contribution to potential significant cumulative impacts to less than cumulatively considerable. Therefore, no new significant effects or substantial changes to cumulative impacts on historical, archaeological, paleontological, or human remain resources provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

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### **4.6 - Geology and Soils**

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#### **4.6.1 - Earthquakes and Seismic-Related Impacts**

Response to CEQA Checklist Items VI.a (i. through iv.).

As described in the PEIR for the GWMP, implementation of the GWMP management strategies would include new, upgraded, and expanded infrastructure throughout the City and sphere of influence. As such, earthquake fault rupture, ground shaking, ground failure, and landslide hazards would vary from site to site. The PEIR states that the implementation of some of the GWMP management strategies have a potential for earthquake fault rupture, ground shaking, ground failure, and landslide hazards. A mitigation measure to prepare a site-specific, design-level geotechnical investigation for each of the GWMP management strategies sites and incorporate recommendations in each project is included in the PEIR to reduce potential significant earthquake and seismic-related impacts to less than significant. In accordance with the mitigation measure identified in the PEIR (i.e., Mitigation Measure 3.6-1), a geotechnical evaluation was prepared for the proposed project by NMG Geotechnical, Inc. in May 2012. The evaluation concluded that there is no evidence of active faulting observed on the site during the study. In addition, seismic design parameters based on the 2010 California Building Code will be incorporated into the design of the project. Although portions of the site are mapped as moderately to highly liquefiable by the County of Riverside, the groundwater level is deeper than 45 feet, and thus the potential for liquefaction to have a significant impact on the proposed facilities is considered very low; therefore the potential for impact is less than significant. Therefore, no new significant effects or substantial changes to the environmental evaluation of earthquakes and seismic-related impacts provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### 4.6.2 - Soil Erosion or Loss of Topsoil

Response to CEQA Checklist Item VI.b.

As described in the PEIR for the GWMP, implementation of the GWMP management strategies would result in new, upgraded, and expanded infrastructure throughout the City and sphere of influence. The construction projects that would result from the GWMP implementation (including the proposed project) could result in erosion or top soil loss if measures are not in place to prevent erosion. The PEIR states that for projects that disturb greater than one-acre of land, State law requires the preparation and implementation of a RWQCB approved Storm Water Pollution Prevention Plan (SWPPP). Implementing the Best Management Practices (BMPs) outlined in the approved SWPPP would ensure that substantial amounts of erosion and top soil loss would not occur. Construction activities associated with the proposed project will result in a disturbance of more than one acre. Therefore, as discussed in the PEIR, there is a potential for a significant impact associated with soil erosion and loss top soil. Mitigation Measures 3.6-2a and 3.1-2a would reduce the potential impact associated with soil erosion and loss of topsoil during construction and operational activities to less than significant.

**MM 3.6-2a:** The City shall ensure that the construction contractor obtains an approved SWPPP and implements identified BMPs to ensure sediment does not leave the construction site. The BMPs would include soil erosion and sediment control measures that could include, but not be limited to, sediment barriers and traps, silt basins, and silt fences. The SWPPP shall identify extra precautionary BMPs to minimize sediment transport within Temescal Creek.

**MM 3.1-2a:** Following construction activities, the City of Corona shall restore disturbed areas by reestablishing pre-existing conditions including topography, repaving roadways, replanting trees, and/or reseeded with a native seed mix typical of the immediate surrounding area.

No new significant effects or substantial changes to the environmental evaluation of soil erosion and loss of top soil provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### 4.6.3 - Unstable and Expansive Soils

Response to CEQA Checklist Items VI.c and VI.d.

Based on review of the Corona GWMP PEIR, implementation of the GWMP management strategies would include new, upgraded, and expanded infrastructure throughout the City of Corona and sphere of influence. The PEIR stated that there could be locations with unstable soils such as liquefaction and landslides and identified a mitigation measure (i.e., Mitigation Measure 3.6-1) to prepare a

geotechnical evaluation for specific projects to incorporate design parameters based on the 2010 California Building Code. As previously stated a geotechnical evaluation was prepared for the proposed project by NMG Geotechnical, Inc. in May 2012. The evaluation identified that the potential for liquefaction to have a significant impact on the proposed facilities is considered very low; therefore, the potential for impact is less than significant. In addition, since the site of the proposed project includes relatively flat terrain, there would be no landslide impacts as a result of the proposed project. Furthermore, the geotechnical evaluation prepared for the proposed project stated that the onsite soils have a very low expansion potential; thus, less than significant impacts associated with expansive soils would occur with project implementation.

No new significant effects or substantial changes to the environmental evaluation of unstable soils provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.6.4 - Unstable Soils for Septic Tanks**

Response to CEQA Checklist Item VI.e.

According to the GWMP PEIR, the management strategies would not include the installation of a septic system or alternative wastewater disposal system. Therefore, the management strategies, including the proposed project, would result in no impacts associated with septic tanks.

No new significant effects or substantial changes to the environmental evaluation of unstable soils for septic tanks provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.6.5 - Cumulative Impacts**

As described in the PEIR for the Corona GWMP, soil and geologic conditions are site-specific. There is little, if any, potential for risks associated with geologic resources to compound in a cumulative manner based on the spatial or temporal proximity of projects. Therefore, implementation of the proposed project would not contribute to cumulative soil and geologic impacts. As identified above, there are project specific geologic and soil impacts that would result in a less than significant impact with the implementation of Mitigation Measures 3.6-2a and 3.1-2a.

No new significant effects or substantial changes to the environmental evaluation of cumulative geology and soil impacts provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

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### **4.7 - Greenhouse Gas Emissions**

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Michael Brandman Associates performed greenhouse gas modeling to ensure consistency with the PEIR. The methodology and modeling are available for review at the Corona Department of Water &

Power at 755 Corporation Yard, Corona, California, 92880. The results of the modeling are summarized below.

**4.7.1 - Greenhouse Gas Emissions and Conflict with Plan, Policy, or Regulation**

Response to CEQA Checklist Items VII.a and VII.b.

According to the GWMP PEIR, the management strategies would contribute to global climate change as a result of emissions of greenhouse gases, primarily carbon dioxide (CO<sub>2</sub>) emitted by trucks and earthmoving equipment associated with construction activities and daily operations once the management strategies are built. The PEIR states that greenhouse gas emissions from construction of the management strategies would be approximately 1,643 metric tons of carbon dioxide equivalents (MTCO<sub>2</sub>e) per year for the duration of construction. The PEIR compared this emission to the SCAQMD Staff CEQA greenhouse gas significance threshold of 6,500 metric tons per year of MTCO<sub>2</sub>e emissions which results in a less than significant impact.

To estimate construction emissions associated with the proposed project, CalEEMod was used. As shown in Table 4, construction emissions associated with the proposed project would be approximately 259 MTCO<sub>2</sub>e or 9 MTCO<sub>2</sub>e averaged over 30 years. The SCAQMD’s current recommendation regarding assessing the significance of construction emissions is to first divide the construction emissions by 30 and add them to the operational emissions.

**Table 4: Construction Greenhouse Gas Emissions**

Phase	Emissions (pounds CO <sub>2</sub> e per day)			Days	Total MTCO <sub>2</sub> e
	Onsite	Offsite	Subtotal		
Trenching and pipe laying	1,054	123	1,177	20	12
Backfill	6,117	157	6,274	10	31
Compact, paving	1,746	228	1,974	10	10
Treatment plant grading	2,937	873	3,810	42	80
Treatment plant construction	3,388	795	4,183	60	125
<b>Total</b>	—	—	—	<b>142</b>	<b>259</b>
<b>Averaged over 30 years</b>	—	—	—	—	<b>9</b>

Notes:  
 MTCO<sub>2</sub>e = metric tons of carbon dioxide equivalents = pounds per day x days x 0.0005.  
 Source: Michael Brandman Associates, 2012.

CalEEMod was also used to estimate greenhouse gas emissions during operation of the project; the emissions are shown in Table 5.

**Table 5: Total Annual Greenhouse Gas Emissions**

Source	Emissions (pounds CO <sub>2</sub> e/day)	Days/year	Total (MTCO <sub>2</sub> e/ year)
Delivery trucks	395	12	2
Electricity			95
Waste			26
Construction averaged over 30 years			9
		<b>Total</b>	<b>132</b>
SCAQMD Industrial Screening Threshold			10,000
Threshold used in the PEIR			6,500
Significant impact?			No
Notes: MTCO <sub>2</sub> e = metric tons of carbon dioxide equivalents (pounds per day x days x 0.0005) Source: Michael Brandman Associates 2012			

Although the PEIR identified a greenhouse gas significance threshold of 6,500 MTCO<sub>2</sub>e, the SCAQMD has currently identified screening thresholds based on land use types. The applicable screening threshold for the proposed project is 10,000 MTCO<sub>2</sub>e per year, which is the threshold for industrial uses (South Coast Air Quality Management District 2008). Therefore, the project’s total greenhouse gas emissions of 132 MTCO<sub>2</sub>e per year would be less than the SCAQMD screening threshold of 10,000 MTCO<sub>2</sub>e per year. As a result, the project’s potential impact from greenhouse gas emissions would be less than significant.

No new significant effects or substantial changes to the environmental evaluation of greenhouse gas emissions in the Corona GWMP PEIR would occur with the implementation of the proposed project.

In addition, the project would not conflict with a known plan, policy, or regulation for reducing greenhouse gas emissions.

#### 4.7.2 - Cumulative Impacts

The GWMP PEIR states that greenhouse gas emission impacts are considered cumulative. There are no individual projects that can affect climate change through greenhouse gas emissions. Therefore, impacts associated with greenhouse gas emissions are cumulative in nature. Since the project would generate less total greenhouse gas emissions than the SCAQMD screening threshold and since the project would not conflict with any applicable plan, policy, or regulation adopted to reduce greenhouse gas emissions, the project’s impact is less than cumulatively considerable, thus less than cumulatively significant.

No new significant effects or substantial changes to the environmental evaluation of cumulative greenhouse gas emissions in the Corona WMP PEIR would occur with the implementation of the proposed project.

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## 4.8 - Hazards and Hazardous Materials

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### 4.8.1 - Hazardous Materials Release – Routine Use and Accident Conditions

Response to CEQA Checklist Items VIII.a and VIII.b.

Based on review of the GWMP PEIR, implementation of the GWMP management strategies would include new, upgraded, and expanded infrastructure throughout the City and sphere of influence. Construction activities associated with some of the management strategies could result in the routine transport, use, and disposal of hazardous materials that could result in a significant impact. The PEIR states that Mitigation Measures 3.7-1a through 3.7-1f would be required for some of the management strategies. Because the proposed project includes construction activities that include hazardous materials, Mitigation Measures 3.7-1a through 3.7-1f would be required. The implementation of these mitigation measures would reduce the project's potential impact related to hazardous materials release to less than significant.

The PEIR also states that some management strategies, such as wastewater treatment plant upgrades, may require increased storage and use of hazardous materials. It further states that the City would comply with state and federal regulations covering the storage and use of hazardous materials during operation of all future GWMP management strategies which includes the proposed project. Therefore, the City's compliance with the state and federal regulations would result in a less than significant hazardous materials release impact during the operation of the proposed project.

Following are the mitigation measures to reduce the project's potential impact related to hazardous materials release to less than significant.

**MM 3.7-1a:** The City of Corona shall require construction contractor(s) to implement BMPs for handling hazardous materials. The use of construction BMPs shall minimize negative effects on groundwater and soils, and will include, without limitation, the following:

- Follow manufacturers' recommendations and regulatory requirements for use, storage, and disposal of chemical products and hazardous materials used in construction.
- Avoid overtopping construction equipment fuel tanks.
- During routine maintenance of construction equipment, properly contain and remove grease and oils.
- Properly dispose of discarded containers of fuels and other chemicals.

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- MM 3.7-1b:** The implementing agencies shall require the construction contractor(s) to implement safety measures in accordance with General Industry Safety Orders for Spill and Overflow Control (CCR Title 8, Sections 5163-5167) to protect the project area from contamination due to accidental release of hazardous materials. The safety measures shall include, but not be limited to, the following:
- Spills and overflows of hazardous materials shall be neutralized and disposed of promptly.
  - Hazardous materials shall be stored in containers that are chemically inert to and appropriate for the type and quantity of the hazardous substance.
  - Containers shall not be stored where they are exposed to heat sufficient enough to rupture the containers or cause leakage.
  - Specific information shall be provided regarding safe procedures and other precautions before cleaning or subsequent use or disposal of hazardous materials containers.
  - Chemical spills shall be reported to the local fire department and the RWQCB.
- MM 3.7-1c:** In the event of an accidental release of hazardous materials during construction, containment and clean up shall occur in accordance with applicable regulatory requirements.
- MM 3.7-1d:** Oil and other solvents used during maintenance of construction equipment shall be recycled or disposed of in accordance with applicable regulatory requirements. All hazardous materials shall be transported, handled, and disposed of in accordance with applicable regulatory requirements.
- MM 3.7-1e:** City of Corona shall require the construction contractor(s) to prepare a Site Safety Plan in accordance with applicable regulatory requirements.
- MM 3.7-1f:** The City of Corona shall require the construction contractor(s) to prepare and implement a Safety Program to ensure the health and safety of construction workers and the public during project construction. The Safety Program shall include an injury and illness prevention program, a site-specific safety plan, and information on the appropriate personal protective equipment to be used during construction.

No new significant effects or substantial changes to the environmental evaluation of hazardous materials release provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### 4.8.2 - Hazardous Materials Near Schools

Response to CEQA Checklist Item VIII.c.

The GWMP PEIR states that the proposed management strategies could occur within one-quarter mile of an existing or proposed school. However, the nearest school to the project site is more than 0.5 mile north of the project site. Therefore, the construction and operation of the proposed project would not impact schools associated with the use and storage of hazardous materials.

No new significant effects or substantial changes to the environmental evaluation of the use and storage of hazardous materials near schools provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### 4.8.3 - Hazardous Materials Sites

Response to CEQA Checklist Item VIII.d.

According to the GWMP PEIR, future GWMP management strategies are excluded from sites that are currently on government hazardous materials waste site databases. To ensure that the project site is excluded from sites that are currently on government hazardous materials waste site databases, a database search conducted for the project by Environmental Database Research, Inc. (EDR) in June 2012 was performed. The database search is available for review at the Corona Department of Water & Power at 755 Corporation Yard Way, Corona, California, 92880. The results of the database search confirmed that the project is not located on a current government hazardous materials waste site database, including a list of hazardous materials sites compiled pursuant to government code section 65962.5. Therefore, the proposed project would result in no impacts associated with hazardous materials sites.

The GWMP PEIR also identified that the GWMP management strategies may be located on sites with unknown contaminated soils or underground storage tanks (USTs). Excavation of unknown contaminated soils could result in a significant impact. Excavation activities associated with the proposed project could also unearth contaminated soils; however, it is unlikely. Mitigation Measures 3.7-3c and 3.7-3d would reduce the potential hazardous waste impact to less than significant.

**MM 3.7-3c:** Excavated materials containing hazardous waste shall be disposed of in accordance with applicable hazardous waste transportation and disposal regulations by the implementing agency within 90 days of excavation.

**MM 3.7-3d:** If previously unknown USTs are discovered during construction, the UST, associated piping, and impacted soil shall be removed by a licensed and experienced UST removal contractor. The UST and contaminated soil shall be removed in compliance with applicable county and state requirements governing UST removal.

No new significant effects or substantial changes to the environmental evaluation of hazardous materials sites provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.8.4 - Public and Private Airport Hazards**

Response to CEQA Checklist Items VIII.e and VIII.f.

Based on review of the GWMP PEIR, the proposed project (Management Strategy #16) would not be located within the Corona Municipal Airport's Comprehensive Land Use Plan. The proposed project is located more than two miles east of the airport. In addition, the PEIR states that the project site is not located near a private airstrip. Based on the project's location, the proposed project would result in no airport hazard impacts.

No new significant effects or substantial changes to the environmental evaluation of airport hazards provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.8.5 - Emergency Response/Evacuation**

Response to CEQA Checklist Item VIII.g.

The PEIR for the Corona GWMP identified that construction of some of the management strategies associated with the GWMP could result in roadway disturbances (i.e., lane closure) which could impact emergency response/evacuation. Implementation of the proposed project will not result in the construction of facilities that require a lane closure. As a result, the implementation of the proposed project would not impact emergency response/evacuation. No new significant effects or substantial changes to the environmental evaluation of emergency response/evacuation provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.8.6 - Wildland Fire Hazards**

Response to CEQA Checklist Item VIII.h.

The GWMP PEIR stated that some of the management strategies may be located in areas that are susceptible to wildland fires as construction activities occur. The proposed project is located within an urban built-up area, and the nearest wildland is located approximately 1.5 miles to the northwest within Prado Basin. The implementation of the proposed project would result in no impacts associated with wildland fire hazards. No new significant effects or substantial changes to the environmental evaluation of wildland fire hazards provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.8.7 - Cumulative Impacts**

The GWMP PEIR identifies that the implementation of the management strategies would result in less than significant cumulative hazards and hazardous materials impacts with the implementation of

the mitigation measures identified for the management strategies. The proposed project would require implementation of mitigation measures associated with construction activities as identified above (i.e., Mitigation Measures 3.7-1(a-f), 3.7-3c, and 3.7-3d). With the implementation of these project mitigation measures, the proposed project would result in cumulative impacts that are less than cumulatively considerable.

No new significant effects or substantial changes to the environmental evaluation of cumulative hazards and hazardous materials impacts provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

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## **4.9 - Hydrology and Water Quality**

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### **4.9.1 - Construction Water Quality Standards/Waste Discharge Requirements During Construction and Water Quality**

Response to CEQA Checklist Items IX.a, IX.f, and IX.m.

#### **Water Quality - Project Construction**

According to the GWMP PEIR, the implementation of the GWMP management strategies could violate water quality standards or waste discharge requirements during construction activities. Violations could result from the release of contaminants such as eroded sediments generated during earth moving and grading operations or chemicals and fuels inadvertently discharged to the ground. However, the PEIR states that construction methods for the management strategies projects are those in common industry practice and best management strategies have been shown to effectively protect surface and groundwater from these potential sources of contamination. The PEIR states that the City has standard protocols to prevent runoff of erosion and minimize siltation during construction activities. These standard practices and protocols would result in less than significant impacts on water quality during construction activities. The implementation of the proposed project would also implement these standard practices and protocols during construction activities and result in less than significant impacts on water quality.

No new significant effects or substantial changes to the environmental evaluation of water quality impacts during construction activities provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

### **4.9.2 - Water Quality Standards/Waste Discharge Requirements During Operations, Urban Runoff, Beneficial Uses, Biological Integrity of Waterways, and Water Quality**

Response to CEQA Checklist Items IX.b, IX.c, IX.d, IX.e, and IX.f.

## **Water Quality - Project Operation**

The GWMP PEIR identified that the management strategies could generate contaminants during the long-term operation and could violate water quality standards or waste discharge requirements. These strategies include groundwater recharge programs that use recycled water that have the potential to cause water quality degradation. The proposed project is not one of the groundwater recharge programs. The proposed project includes increasing the treatment of wastewater from secondary treatment to tertiary treatment. Implementation of the proposed project would include deliveries of materials, including chemicals; however, these deliveries would be located in spill containment areas and would result in no impacts on water quality, including the terms of the City's municipal separate stormwater sewer system permit during operational activities. The proposed project would not violate water quality standards or waste discharge requirements during operational activities. In addition, the operations of the proposed project would not adversely affect Beneficial Uses or biological integrity of waterways.

No new significant effects or substantial changes to the environmental evaluation of water quality impacts during operational activities provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

### **4.9.3 - Groundwater Depletion**

Response to CEQA Checklist Item IX.g.

As described in the GWMP PEIR, the objective of the GWMP is to implement sustainable management of groundwater resources through increased groundwater recharge and reductions of potable water demand. These management strategy projects are intended to be beneficial to the groundwater supply. Since the proposed project will increase tertiary treatment of water and reduce potable water demand, the project would result in a beneficial impact on groundwater resources.

No new significant effects or substantial changes to the environmental evaluation of groundwater supplies during operational activities provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

### **4.9.4 - Erosion/Siltation, Onsite/Offsite Erosion, Drainage Pattern Alteration**

Response to CEQA Checklist Item IX.h, IX.i, and IX.j.

Based on review of the GWMP PEIR, some of the GWMP management strategies could temporarily alter drainage system, but would result in a less than significant impact on the City's storm drain system. Implementation of the proposed project will alter the onsite drainage; however, two infiltration basins are proposed on the northern portion of the site to retain storm water on the project site and would not increase the rate or amount of runoff to offsite facilities. In addition, the alteration of the onsite drainage would not result in substantial erosion because the proposed facilities are

proposed on relatively flat terrain. Therefore, the implementation of the proposed project would result in no impacts to existing offsite drainage patterns.

No new significant effects or substantial changes to the environmental evaluation of drainage pattern alteration or erosion provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.9.5 - Drainage System Capacities, Alter Flow Velocity/Volume, Housing/Structures Placement in Flood Hazard Area, Flooding, and Seiche/Tsunami/Mudflow**

Response to CEQA Checklist Items IX.k, IX.l, and IX.n, through IX.q.

The GWMP PEIR states that there may be some GWMP management strategies that may be located within flood plains and could result in significant impacts to adjacent uses. The implementation of the proposed project is not located within a flood plain and therefore would have no flooding impacts on adjacent uses. In addition, as stated above, the proposed project includes infiltration basins to capture onsite stormwater flows on the project site. Only overflows from the infiltration basins would be conveyed offsite, and these flows would be less than under existing conditions. Therefore, the project would result in no impacts to flow velocity or volume of stormwater runoff. As a result, the project would not increase existing stormwater flows to existing offsite drainage facilities, and therefore, the project would not affect existing capacities of offsite drainage facilities. Furthermore, the project would not expose people or structures to seiches, tsunamis, or mudflows because the project site is not in close proximity of a large body of water, has relatively flat terrain, and is approximately 30 miles from the Pacific Ocean.

No new significant effects or substantial changes to the environmental evaluation of flooding and existing drainage system capacities provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.9.6 - Cumulative Impacts**

The GWMP PEIR states that construction of future new development in the watershed would be required to comply with existing regulations regarding construction practices that minimize impacts associated with erosion, runoff, and flooding, and would not be considered cumulatively considerable when considered together with future development in the watershed. The construction of the proposed project would also comply with existing regulations and would also result in erosion, runoff, and flooding impacts that are considered less than cumulatively considerable; thus less than cumulatively significant.

As stated above, the proposed project would result in no impacts on long-term water quality and would not increase stormwater flows offsite. Therefore, the project would not contribute to cumulative long-term water quality and offsite stormwater facilities impacts.

No new significant effects or substantial changes to the environmental evaluation of cumulative hydrology and water quality impacts provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

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## **4.10 - Land Use and Planning**

### **4.10.1 - Divide Established Community**

Response to CEQA Checklist Item X.a.

The proposed project is located within the boundary of the existing WRF2 facilities and would not physically divide an established community. Therefore, the project would result in no land use impact on an established community.

### **4.10.2 - Conflict with Applicable Plans, Policies, or Regulations**

Response to CEQA Checklist Item X.b.

The GWMP PEIR identifies that there is a potential for the management strategies to conflict with the applicable land use designation or zoning. However, the proposed tertiary filtration project is proposed on the site of the existing WRF2 facilities. The proposed project would be consistent with the existing zoning and General Plan designation for the site. Therefore, the proposed project would not conflict with the site's applicable land use plans, policies, or regulations associated with zoning or the General Plan.

In addition, based on review of the GWMP PEIR under Hazards and Hazardous Waste, the proposed project (Management Strategy #16) would not be located within the Corona Municipal Airport's Comprehensive Land Use Plan. The proposed project is located more than two miles east of the airport. In addition, the PEIR states that the project site is not located near a private airstrip. Based on the project's location, the proposed project would not conflict with an applicable airport land use plan.

No new significant effects or substantial changes to the environmental evaluation of conflicts with applicable land use plans, policies, or regulations provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

### **4.10.3 - Conflict with Conservation Plans**

Response to CEQA Checklist Item X.c.

Refer to the response to CEQA Checklist Item IV.f under Biological Resources.

#### **4.10.4 - Cumulative Impacts**

The PEIR for the GWMP states that the management strategies could result in a significant impact to land use; however, mitigation measures are recommended to reduce the potential impacts of the strategies to less than significant. The implementation of the proposed project would not impact land use, and therefore, would not contribute to potential impacts resulting from other development within the City.

No new significant effects or substantial changes to the environmental evaluation of cumulative land use impacts provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

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### **4.11 - Mineral Resources**

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#### **4.11.1 - Loss of Known Mineral Resource or Recovery Site**

Response to CEQA Checklist Items XI.a and XI.b.

According to the GWMP PEIR, the GWMP would result in no impacts on mineral resources. The proposed project is located at the existing WRF2 facility and would also result in no impact on mineral resources because the project site is not designated as a mineral resources site.

No new significant effects or substantial changes to the environmental evaluation of mineral resources in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.11.2 - Cumulative Impacts**

Since the GWMP PEIR stated that the GWMP would result in no impacts on mineral resources, the GWMP would not contribute to cumulative impacts to mineral resources. Therefore, the implementation of the proposed project would result in no impact on mineral resources and would not contribute to cumulative impacts to mineral resources.

No new significant effects or substantial changes to the environmental evaluation of cumulative mineral resources impacts in the Corona GWMP PEIR would occur with the implementation of the proposed project.

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### **4.12 - Noise**

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#### **4.12.1 - Exceed Noise Standards and Permanent/Temporary Increase in Ambient Noise Levels**

Response to CEQA Checklist Items XII.a, XII.c, and XII.d.

Implementation of the proposed project will result in noise levels during construction and operational activities.

According to the GWMP PEIR, the management strategies may result in construction-related noise that could exceed the construction equipment standards and hourly limits at some of the sites, and could be significant and unavoidable temporary construction impacts at noise sensitive receptors within 50 feet of construction activities. Construction activities associated with the proposed project will be located approximately 1,000 feet from existing sensitive receptors, and there are existing intervening buildings that would provide further attenuation of construction noise levels on the project site. Project construction activities will be in accordance with the City of Corona's noise ordinance which restricts construction related noise to daytime hours from 7:00 am to 8:00 pm Monday through Saturday and 10:00 am to 6:00 pm on Sundays and federal holidays. Due to the distance of existing sensitive receptors and adherence to the City's noise ordinance, the proposed project would result in less than significant construction noise impacts.

The GWMP PEIR states that the operation of the proposed GWMP management strategies could result in long-term noise increase, as implementation of the strategies would result in the addition of mechanical and electrical equipment at some of the facilities, including the wastewater treatment plants. The proposed project will also include the addition of mechanical equipment; however, given the distance to the nearest sensitive receptors (i.e., 1,000 feet) as well as existing intervening buildings that would provide further attenuation, the operation of the proposed project would comply with the City's noise ordinance and would not result in a substantial increase of noise at the sensitive receptor.

No new significant effects or substantial changes to the environmental evaluation of construction and operational noise impacts in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.12.2 - Excessive Groundborne Vibration**

Response to CEQA Checklist Item XII.b.

The GWMP PEIR states that construction activities associated with management strategies that require vibratory pile driving activities within 50 feet of sensitive receptors could result in significant vibration impacts. Since the nearest receptors to the proposed project are 1,000 feet in distance, construction activities associated with the proposed project would result in less than significant vibration impacts.

No new significant effects or substantial changes to the environmental evaluation of vibration impacts in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.12.3 - Public/Private Airport Noise Levels**

Response to CEQA Checklist Items XII.e, and XII.f.

Based on review of the GWMP PEIR, the management strategies would not place people in high-noise areas near airports. The proposed project would not be located within the Corona Municipal Airport's Comprehensive Land Use Plan, and it is located more than two miles east of the airport. In addition, the PEIR states that the project site is not located near a private airstrip. Based on the project's location, the proposed project would result in less than significant airport noise impacts.

No new significant effects or substantial changes to the environmental evaluation of airport noise provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.12.4 - Cumulative Impacts**

According to the GWMP PEIR, construction of the proposed GWMP management strategies combined with other projects in the City of Corona could result in significant and unavoidable noise and vibration impacts. However, since the proposed project is located approximately 1,000 feet from existing sensitive receptors, and there are existing intervening buildings that would provide further attenuation of noise and vibration for the sensitive receptors, the proposed project's contribution to noise levels on sensitive receptors is considered to be less than cumulatively considerable; thus less than cumulatively significant.

No new significant effects or substantial changes to the environmental evaluation of cumulative noise levels provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

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### **4.13 - Population and Housing**

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#### **4.13.1 - Population Growth and Housing/Population Displacement**

Response to CEQA Checklist Items XIII.a through XIII.c.

According to the GWMP PEIR, the management strategies would result in no impacts on population and housing. The proposed project includes an additional treatment process at the WRF2 facility. The proposed facilities will increase tertiary treated water that could be used for recycled water purposes. The implementation of the proposed project would not induce population growth or impact housing.

No new significant effects or substantial changes to the environmental evaluation of population and housing provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.13.2 - Cumulative Impacts**

Since the PEIR identified that the implementation of the GWMP management strategies would result in no impacts on population and housing, these management strategies would not contribute to significant cumulative impacts on population and housing. The implementation of the proposed

project would not induce population growth or impact housing. Therefore, the proposed project would not contribute to potential cumulative impacts on population and housing.

No new significant effects or substantial changes to the environmental evaluation of cumulative population and housing provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

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## **4.14 - Public Services**

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### **4.14.1 - Fire, Police, Schools, Parks, and Other Public Facilities**

Response to CEQA Checklist Item XIV.a through XIV.e.

The GWMP PEIR stated that the management strategies would result in no impacts on public services including police, fire, schools, parks, and other public facilities. The implementation of the proposed project will add tertiary treatment facilities at the existing WRF2 site. The addition of these facilities will have no impact on police, fire, schools, parks, and other public facilities because the project would not result in environmental effects caused by the expansion of these public services.

No new significant effects or substantial changes to the environmental evaluation of public services provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

### **4.14.2 - Cumulative Impacts**

Since the PEIR identified that the implementation of the GWMP management strategies would result in no impacts on public services, these management strategies would not contribute to significant cumulative impacts on public services. The implementation of the proposed project would not increase the need for additional public services that would result in environmental effects caused by the expansion of these public services. Therefore, the proposed project would not contribute to potential cumulative impacts on public services.

No new significant effects or substantial changes to the environmental evaluation of cumulative public services provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

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## **4.15 - Recreation**

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### **4.15.1 - Increase Park Use and Effect Recreational Facilities**

Response to CEQA Checklist Items XV.a and XV.b.

The GWMP PEIR states that the management strategies could be located on or near existing or planned recreational resources and could interrupt access to and use of recreational facilities. The proposed project is not located on or near an existing or planned recreational facilities or would

generate the need for parks or recreational facilities; therefore, the project would not impact recreational facilities.

No new significant effects or substantial changes to the environmental evaluation of parks and recreational facilities provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.15.2 - Cumulative Impacts**

Because the proposed project would not impact recreational facilities, the project would not contribute to potential cumulative impacts on recreational facilities.

No new significant effects or substantial changes to the environmental evaluation of cumulative recreational facilities provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

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### **4.16 - Transportation/Traffic**

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#### **4.16.1 - Conflict with Plans, Ordinances, Policies and Congestion Management Plan**

Response to CEQA Checklist Items XVI.a and XVI.b.

According to the GWMP PEIR, the management strategies would not result in any new facilities that would generate long-term changes in traffic and would not permanently reduce level of service in any roadways in the City. In addition, the PEIR stated that construction associated with the management strategies would generate short-term increases in traffic on regional and local roadways due to worker vehicle trips and truck trips for material hauling. The addition of construction trips on the roadways could adversely affect traffic and level of service in the local roadways. The proposed project would result in a nominal increase in long-term traffic, and therefore would result in a less than significant impact on local roadways.

The project will increase traffic volumes during construction activities. These construction activities could also result in construction trips that could adversely impact traffic and level of service in the local roadways. To reduce these potential construction traffic impacts, two of the traffic mitigation measures identified in the PEIR shall be implemented with the proposed project. These two mitigation measures are as follows:

**MM 3.12-1a:** The City's construction contractor shall prepare and implement a Traffic Control/Traffic Management Plan subject to approval by the City prior to construction. The plan shall:

- Identify hours of construction and hours for deliveries;

- Include a discussion of haul routes, limits on the length of open trench, work area delineation, traffic control and flagging;
- Identify all access and parking restrictions, pavement markings and signage requirements (e.g., speed limit, temporary loading zones);
- Maintain access to residence and business driveways, public facilities, and recreational resources at all times to the extent feasible; Minimize access disruptions to businesses and residences;
- Layout a plan for notifications and a process for communication with affected residents and businesses prior to the start of construction. Advance public notification shall include posting of notices and appropriate signage of construction activities. The written notification shall include the construction schedule, the exact location and duration of activities within each street (i.e., which lanes and access point/driveways would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints;
- Include a plan to coordinate all construction activities with emergency service providers in the area at least one month in advance. Emergency service providers shall be notified of the timing, location, and duration of construction activities. All roads shall remain passable to emergency service vehicles at all times;
- Include a plan to coordinate all construction activities with the Corona-Norco Unified School District at least two months in advance. The Corona-Norco Unified School
- District shall be notified of the timing, location, and duration of construction activities. The City shall require its contractor to maintain vehicle, pedestrian, and school bus service during construction through inclusion of such provisions in the construction contract. The assignment of temporary crossing guards at designated intersections may be needed to enhance pedestrian safety during project construction.

Also, the following provisions shall be met:

- Pipeline construction near schools shall occur when school is not in session (i.e., summer or holiday breaks). If this is not feasible, a minimum of two months prior to project construction, the implementing agencies shall coordinate with the Corona-Norco Unified School District to identify peak circulation periods at schools along the alignment(s) (i.e., the arrival and departure of students), and require their contractor to avoid construction and lane closures during those periods;
- A minimum of two months prior to project construction, the implementing agencies shall coordinate with the Corona-Norco Unified School District to

identify alternatives for the school busing routes and stop locations, and other circulation provisions, as part of the Traffic Control/Traffic Management Plan;

- Include the requirement that all open trenches be covered with metal plates at the end of each workday to accommodate traffic and access; and
- Specify the street restoration requirements pursuant to agreements with the local jurisdictions.

**MM 3.12-1c:** The City shall develop circulation and detour plans to minimize impact to local street circulation, including bikeways. This may include the use of signing and flagging to guide vehicles and cyclists through and/or around the construction zone.

No new significant effects or substantial changes to the environmental evaluation of an applicable plan, ordinance, or policy including an applicable congestion management plan provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.16.2 - Air Traffic Patterns**

Response to CEQA Checklist Item XVI.c.

The GWMP PEIR states that the management strategies would not change air traffic patterns because structural facilities associated with the management strategies are not located immediately adjacent to airports. Similarly, the implementation of the proposed project would not change air traffic patterns due to the site's distance of approximately two miles to the nearest airport. Therefore, the proposed project would result in no impact on air traffic patterns.

No new significant effects or substantial changes to the environmental evaluation of airport traffic patterns provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.16.3 - Traffic Hazards**

Response to CEQA Checklist Item XVI.d.

The GWMP PEIR states that construction projects associated with the GWMP management strategies would not substantially increase hazards due to design features or incompatible uses. However, the PEIR states that the implementation of Traffic Control/Traffic Management Plan as well as other measures (i.e., Mitigation Measures 3.12-1a through 3.12-1f) would reduce potential impacts to less than significant. The proposed project will include construction activities on the project site and no grading or construction would occur within public streets. There will be haul trucks for material during construction activities that may cause temporary hazards during hauling activities, and therefore, the implementation of Mitigation Measures 3.12-1a and 3.12-1c would reduce potential impacts to less than significant.

No new significant effects or substantial changes to the environmental evaluation of traffic hazards provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.16.4 - Emergency Access**

Response to CEQA Checklist Item XVI.e.

The GWMP PEIR states that construction projects associated with the GWMP management strategies would include direct disruption of traffic flows and street operations. However, the implementation of Mitigation Measures 3.12-1a through 3.12-1f would reduce potential impacts to less than significant. The construction activities associated with the proposed project will be located on the project site and no grading or construction would occur within public streets. There will be haul trucks for material during construction activities that may cause disruption of emergency access; however, the implementation of Mitigation Measures 3.12-1a and 3.12-1c would reduce potential traffic impacts to less than significant.

No new significant effects or substantial changes to the environmental evaluation of emergency access provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.16.5 - Public Transit, Bicycle, or Pedestrian Facilities**

Response to CEQA Checklist Item XVI.f.

The implementation of the proposed project would not impact public transit, bicycle or pedestrian facilities because the project does not include grading or construction activities off of the project site. No new significant effects or substantial changes to the environmental evaluation of emergency access provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.16.6 - Cumulative Impacts**

The GWMP PEIR states that the construction of the management strategies combined with other projects in the City and sphere-of-influence could affect traffic and circulation in the region. Mitigation Measures 3.12-1a through 3.12-1f would reduce potential impacts to less than significant. Construction activities associated with the proposed project would contribute to haul truck traffic on the local streets. These activities could result in a traffic impact, and the implementation of Mitigation Measures 3.12-1a and 3.12-1c would reduce the project's contribution to potential traffic impacts to less than cumulatively considerable; thus less than cumulatively significant.

No new significant effects or substantial changes to the environmental evaluation of cumulative traffic impacts provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

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## 4.17 - Utilities and Service Systems

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### 4.17.1 - Wastewater Treatment Requirements, Water/Wastewater Treatment Facilities, Water Supplies, and Wastewater Treatment Capacity

Response to CEQA Checklist Items XVII.a, XVII.b, XVII.d, and XVII.e.

According to the GWMP PEIR, the management strategies would not generate additional sources of wastewater and thus would not exceed the requirements of the applicable Regional Water Quality Control Board, or exceed the capacity of the wastewater service provider. The proposed project includes the addition of tertiary filtration facilities at the existing WRF2 facility. The addition of the project would not add wastewater, but would add an additional treatment process that would increase the amount of water that could be used for recycled purposes. Therefore, the proposed project would not exceed the requirements of the applicable Regional Water Quality Control Board, or exceed the capacity of the wastewater service provider.

In addition, the proposed project would not increase the demand for water supplies, but would increase water supply by providing tertiary treated water. The project would result in the beneficial impact on water supplies.

No new significant effects or substantial changes to the environmental evaluation of water and wastewater impacts provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

### 4.17.2 - Drainage Facilities

Response to CEQA Checklist Item XVII.c.

According to the GWMP PEIR, the management strategies would not require the construction of new offsite storm water drainage facilities; therefore, there would be no impact on existing storm water facilities. The proposed project includes infiltration basins that will capture onsite storm water. Therefore, the project would reduce the amount of existing storm water that currently exits the site. The project would result in a beneficial impact.

No new significant effects or substantial changes to the environmental evaluation of storm water drainage facilities provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

### 4.17.3 - Landfill Capacity and Solid Waste Regulations

Response to CEQA Checklist Item XVII.f and XVII.g.

According to the GWMP PEIR, the implementation of the management strategies would generate solid waste, including excavated soils. The PEIR states that Mitigation Measures 3.13-7a and 3.13-7b

are proposed to reduce the amount of solid waste expected to be generated. As a result, impacts would be less than significant with the implementation of these mitigation measures.

The implementation of the proposed project would also result in the generation of solid waste. The implementation of Mitigation Measures 3.13-7a and 3.13-7b would also reduce the amount of solid waste expected to be generated and potential impacts would be less than significant.

**MM 3.13-7a:** The City of Corona shall include project facility design and construction methods that produce less waste, or that produce waste that could more readily be recycled or reused.

**MM 3.13-7b:** The City of Corona shall require the construction contractor to include plans for recovering, reusing, and recycling wastes produced through construction and excavation activities in construction specifications.

Furthermore, the proposed project would comply with existing federal, state, and local statutes and regulations related to solid waste and would result in a less than significant impact on solid waste statutes and regulations.

No new significant effects or substantial changes to the environmental evaluation of solid waste and landfills provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

#### **4.17.4 - Cumulative Impacts**

According to the GWMP PEIR, the management strategies could result in temporary disruptions to utilities or increases in the demand for landfill capacity. However, implementation of Mitigation Measures 3.13-1a through 3.13-1c, 3.13-7a, and 3.13-7b would ensure that the proposed GWMPs incremental contribution to cumulative impacts on public services and utilities would not be cumulatively considerable. Impacts would be less than significant with mitigation.

The implementation of the proposed project would not affect existing offsite water and wastewater facilities or storm water drainage facilities. The project will increase the generation of solid waste. The implementation of Mitigation Measures 3.13-7a and 3.13-7b would reduce the project's contribution to cumulative impacts on landfills to less than cumulatively considerable.

No new significant effects or substantial changes to the environmental evaluation of utilities and service systems provided in the Corona GWMP PEIR would occur with the implementation of the proposed project.

**Attachment B:**

**Air Quality and Greenhouse Gas Methodology and  
Model Output Water Reclamation Facility (WRF) #2  
Tertiary Filtration Project,” prepared for City of Corona,  
Department of Water and Power (July 3, 2012)**



**Air Quality and Greenhouse Gas  
Methodology and Model Output  
Water Reclamation Facility (WRF) #2  
Tertiary Filtration Project  
Corona, California**

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July 3, 2012

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## ACRONYMS AND ABBREVIATIONS

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AB	Assembly Bill
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
DPM	diesel particulate matter
EPA	Environmental Protection Agency
MTCO <sub>2e</sub>	metric tons of carbon dioxide equivalent
MMTCO <sub>2e</sub>	million metric tons of carbon dioxide equivalent
NO <sub>x</sub>	nitrogen oxides
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in diameter
PM <sub>10</sub>	particulate matter less than 10 microns in diameter
ppm	parts per million
ppt	parts per trillion
ROG	reactive organic gases
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SO <sub>x</sub>	sulfur oxides
VOC	volatile organic compounds

## SECTION 1: EXECUTIVE SUMMARY

### 1.1 - Purpose and Methods

The following contains a brief explanation of the modeling assumptions and the model output for the air quality and greenhouse modeling for the Water Reclamation Facility No. 2 (WRF #2), the project. It is in support of the Environmental Evaluation for the project and is intended to be an appendix of that document.

### 1.2 - Standard Conditions

During construction and operation, the project must comply with applicable rules and regulations. The following are rules the project may be required to comply with, either directly, or indirectly.

#### 1.2.1 - South Coast Air Quality Management District Rules

**SCAQMD Rule 402** prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

**SCAQMD Rule 403** governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM<sub>10</sub> component). Compliance with these rules would reduce impacts on nearby sensitive receptors.

Rule 403 measures may include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).

- Water active sites at least three times daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replanting disturbed areas as soon as practical.
- During all construction activities, construction contractors shall sweep onsite and offsite streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

**SCAQMD Rule 1401**, New Source Review of Toxic Air Contaminants, specifies limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units, which emit toxic air contaminants.

## SECTION 2: MODELING PARAMETERS AND ASSUMPTIONS

### 2.1 - Model Selection

Air pollutant emissions can be estimated by using emission factors and a level of activity. Emission factors are the emission rate of a pollutant given the activity over time; for example, grams of NO<sub>x</sub> per horsepower hour. The ARB has published emission factors for on-road mobile vehicles/trucks in the EMFAC mobile source emissions model and emission factors for off-road equipment and vehicles in the OFFROAD emissions model.

The activity for construction equipment is based on the horsepower and load factors of the equipment. In general, the horsepower is the power of an engine – the greater the horsepower, the greater the power. The load factor is the average power of a given piece of equipment while in operation compared with its maximum rated horsepower. A load factor of 1.0 indicates that a piece of equipment continually operates at its maximum operating capacity. An air emissions model (or calculator) combines the emission factors and the various levels of activity and outputs the emissions for the various pieces of equipment.

The California Emissions Estimator Model (CalEEMod) version 2011.1.1 was developed in cooperation with the SCAQMD and other air districts throughout the state. CalEEMod is designed as a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas emissions associated with construction and operation from a variety of land uses. According to SCAQMD, the decision to continue using the URBEMIS model is up to the lead agency. The Lead Agency has decided to use CalEEMod for this analysis.

Emission factors are often updated and there is a normal lag time between the development of new emission factors and the integration of the new emissions factors into the appropriate models. CalEEMod uses OFFROAD2007 and EMFAC2007 emission factors and will not be updated with the new OFFROAD2011 and EMFAC2011 factors until the end of 2012, after the release of this analysis. Included in the OFFROAD2011 update is a reduction in the load factors by 33 percent compared with OFFROAD2007, which equates to a decrease in off-road construction related emissions (California Air Resources Board 2010d).

### 2.2 - Construction

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and prevailing weather conditions. Construction emissions result from onsite and offsite activities. Onsite emissions principally consist of exhaust emissions (NO<sub>x</sub>, SO<sub>x</sub>, CO, VOC, PM<sub>10</sub>, and PM<sub>2.5</sub>) from heavy-duty construction equipment, motor vehicle operation, and

fugitive dust (mainly PM<sub>10</sub>) from disturbed soil. Additionally, paving operations would release VOC emissions. Offsite emissions are caused by motor vehicle exhaust from delivery vehicles, worker traffic, and road dust (PM<sub>10</sub> and PM<sub>2.5</sub>).

The construction emissions were estimated using the California Emissions Estimator Model Version 2011.1.1 (CalEEMod).

### 2.2.1 - Construction Assumptions

The assumed construction equipment list is shown in Table 1 and the construction worker and haul trips are presented in Table 2. The default off-site trip length for worker trips (10.8 miles) and haul trips (20 miles) is used in this analysis because specific information is unknown at this time.

**Table 1: Construction Equipment Assumptions**

Activity	Equipment	Maximum Number per day	Hours per day per equipment	Horsepower	Load Factor
Trenching and pipe laying	Excavators	1	8	157	0.57
	Generator sets	1	2	84	0.74
Backfill	Rubber tired loaders	2	8	87	0.54
	Off-highway trucks (water truck)	1	3	381	0.57
	Off-highway trucks (dump truck)	2	8	381	0.57
Compact, paving	Plate compactors	1	7	8	0.43
	Pavers	1	7	89	0.62
	Rollers	1	7	84	0.56
	Off-highway trucks (water truck)	1	3	381	0.57
Treatment plant grading	Rubber tired dozers	1	8	358	0.59
	Tractor/loader/backhoes	1	8	75	0.55
	Off-highway trucks (water truck)	1	3	381	0.57
Treatment plant construction	Cranes	1	8	208	0.43
	Tractor/loader/backhoes	1	4	75	0.55
	Off-highway trucks (concrete)	8	1	381	0.57
	Generator sets	1	4	84	0.74
Sources: - Equipment name is as contained in CalEEMod (further description is shown in parentheses). - Equipment number and hours is from City of Corona Department of Water and Power, Vernon Weisman, June 21, 2012. - Horsepower and load factor from CalEEMod default.					

**Table 2: Construction Off-Site Trips**

Phase	Worker Trips/day	Haul Trips/day
Trenching and pipe laying	4	1
Backfill	7	1
Compact, paving	6	2
Treatment plant grading	5	10
Treatment plant construction	13	8

Source of worker trips: The number of equipment used plus two (for supervisors)  
 Source of trenching and backfill haul trips: No data was available for these phases; therefore, one trip per day was assumed for worst-case purposes.  
 Source of compact, paving: These trips are associated with the delivery of paving materials or equipment.  
 Source of treatment plant grading haul trips: Import and export would not occur on the same day; it is assumed that there would be 10 trips per day.  
 Source of haul trips for treatment plant construction: There would be approximately 1350 cubic yards of concrete required for this project. Assuming 8 cubic yards per truckload, 1 hour per load, 1 truck delivery at a time, and an 8-hour workday, there would be 8 concrete deliveries per day.

The construction durations are used in the greenhouse gas emissions analysis, as the emissions are presented on an annual basis. The daily activity is utilized for the criteria pollutant emissions analysis. CalEEMod does not have a default construction duration for this type of project. Therefore, the duration was estimated as shown in Table 3.

**Table 3: Construction Duration**

Phase	Project Duration (days)
Trenching and pipe laying	20
Backfill	10
Compact, paving	10
Treatment plant – grading	42
Treatment plant construction	60

Source of trenching and pipe laying and backfill: Estimated based on similar project experience.  
 Source of compact, paving: Based on CalEEMod defaults.  
 Source of treatment plant – grading: According to the Final Geotechnical Report, the diatomaceous fill in the upper 7.5 feet will be excavated and removed from the site, which is calculated to be 2,150 cubic yards of export; assuming 10 cubic yards per truck yields 215 trips. Assuming 10 trips per day for export, export would take 22 days. There would be 1,700 cubic yards of dirt imported and 270 cubic yards of gravel imported, each truck with a capacity of 10 cubic yards. Therefore, there would be 197 trips for import purposes. Assuming 10 trips per day yields 20 days for import. Total import and export yields 42 days.  
 Source of treatment plant construction: There would be 170 loads of concrete; therefore, delivery of concrete would have a duration of 22 days. Additional days were added for other building activities.

The CalEEMod default tiers are used in this analysis. The “tier” of an engine depends on the model year and horsepower rating; generally, the newer a piece of equipment is, the greater the tier it is likely to have. Excluding engines greater than 750 horsepower, Tier 1 engines were manufactured generally between 1996 and 2003. Tier 2 engines were manufactured between 2001 and 2007. Tier 3 engines were manufactured between 2006 and 2011. Tier 4 engines are the newest and some incorporate hybrid electric technology; they were manufactured after 2007 (South Coast Air Quality Management District 2011).

The acreage to be paved is approximately 1.4 acres, entered into CalEEMod as an asphalt surface.

During some construction activities, fugitive dust can be generated from the movement of dirt on the project site. CalEEMod estimates dust from dozers moving dirt around, dust from graders or scrapers leveling the land, and loading or unloading dirt into haul trucks. Each of those activities is calculated differently in CalEEMod based on the number of acres traversed by the grading equipment. During treatment plant grading, there would be 100 cubic yards of import or export per day, which was entered into CalEEMod to estimate onsite fugitive dust. The CalEEMod default for the acres disturbed based on the equipment list is zero acres. Therefore, the model was changed to reflect 1 acre per day disturbed.

SCAQMD Rule 403 requires fugitive dust generating activities follow best available control measures to reduce emissions of fugitive dust. For the phases that include a water truck, these measures are accounted for in CalEEMod as “mitigation” because the model categorizes the measures as “mitigation,” even though they are technically not mitigation. The rule is accounted for in CalEEMod by the mitigation for watering exposed area three times per day, for a 61 percent PM10 and PM2.5 reduction from those sources.

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## **2.3 - Operation**

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Operational emissions are those emissions that occur during operation of the project. The only increases in operational emissions are 2 delivery trips per month and an increase in electricity. There would be no increase in maintenance trips because maintenance personnel are currently visiting the project site and they would include the new facilities in normal maintenance activities.

### ***Delivery Trips***

There would be two delivery trip per month. For worst-case purposes, it is assumed that these trips would occur on the same day. It is assumed that the trips are heavy-heavy duty truck trips and the trip length is 50 miles per trip. The emissions are estimated by CalEEMod.

### ***Electricity***

Electricity would be used for the project to operate a variety of pumps, blowers, valves, flocculators, and a mixer. The project would use approximately 890 kilowatt hours (kWh) per day, which equates

to 324,850 kWh per year (source is Tom Falk, personal communication June 28, 2012). The CalEEMod file assumes 1,000 square feet of industrial uses (a minimum size is required to be able to estimate operational emissions); therefore, the electricity entered into CalEEMod is 324,850 kWh per 1,000 square feet year.

### SECTION 3: REFERENCES

The following references were used in the preparation of this analysis and are referenced in the text and/or were used to provide the author with background information necessary for the preparation of thresholds and content.

CalEEMod. California Emissions Estimator Model. Version 2011.1.1. Website: <http://caleemod.com/>. Accessed December 18, 2011.

California Air Pollution Control Officers Association. 2008. CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. Website: [www.capcoa.org/](http://www.capcoa.org/). Accessed December 18, 2011.

California Air Resources Board. 2011. Area Designation Maps / State and National. 2011 State Area Designations. Changes became effective June 23, 2011. Website: [www.arb.ca.gov/desig/adm/adm.htm](http://www.arb.ca.gov/desig/adm/adm.htm). Accessed April 26, 2012.

California Air Resources Board. 2012. California Air Resources Board. February 7, 2012. Ambient Air Quality Standards. Website: [www.arb.ca.gov/research/aaqs/aaqs2.pdf](http://www.arb.ca.gov/research/aaqs/aaqs2.pdf). Accessed March 20, 2012.

California Environmental Protection Agency. 2002. Office of Environmental Health Hazard Assessment. Health Effects of Diesel Exhaust. Website: [www.oehha.ca.gov/public\\_info/facts/pdf/diesel4-02.pdf](http://www.oehha.ca.gov/public_info/facts/pdf/diesel4-02.pdf). Accessed December 18, 2011.

Governor's Office of Planning and Research. 2008. Technical Advisory. CEQA AND CLIMATE CHANGE: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review. Website: <http://opr.ca.gov/docs/june08-ceqa.pdf>. Accessed May 7, 2012.

National Toxicology Program. 2011. Report on Carcinogens, Twelfth Edition; U.S. Department of Health and Human Services, Public Health Service. Diesel Exhaust Particles. Website: <http://ntp.niehs.nih.gov/ntp/roc/twelfth/profiles/DieselExhaustParticulates.pdf>. Accessed May 7, 2012.

South Coast Air Quality Management District. 1993. CEQA Handbook. Available at SCAQMD, 21865 Copley Dr, Diamond Bar, CA 91765.

South Coast Air Quality Management District. 2003. Air Quality Management Plan. Website: [www.aqmd.gov/aqmp/AQMD03AQMP.htm](http://www.aqmd.gov/aqmp/AQMD03AQMP.htm). Accessed May 7, 2012.

South Coast Air Quality Management District. 2007. Final 2007 Air Quality Management Plan. Website: [www.aqmd.gov/aqmp/07aqmp/index.html](http://www.aqmd.gov/aqmp/07aqmp/index.html). Accessed May 7, 2012.

South Coast Air Quality Management District. 2008. June 2003, revised July 2008. Final Localized Significance Threshold Methodology. Website: [www.aqmd.gov/CEQA/handbook/LST/Method\\_final.pdf](http://www.aqmd.gov/CEQA/handbook/LST/Method_final.pdf). Accessed May 7, 2012.

- South Coast Air Quality Management District. 2008b. Board Meeting Date: December 5, 2008, Agenda 31, Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans. Website: [www.aqmd.gov/hb/2008/December/081231a.htm](http://www.aqmd.gov/hb/2008/December/081231a.htm). Accessed May 7, 2012.
- South Coast Air Quality Management District. 2008c. Draft Guidance Document – Interim CEQA Greenhouse (GHG) Significance Threshold Document. Website: <http://www.aqmd.gov/hb/attachments/2008/December/081231.exe>. (Attachment E) Accessed September 12, 2011.
- South Coast Air Quality Management District. 2009. Final Localized Significance Threshold Methodology, Appendix C. Revised October 21, 2009. Website: [www.aqmd.gov/CEQA/handbook/LST/LST.html](http://www.aqmd.gov/CEQA/handbook/LST/LST.html), Accessed May 7, 2012.
- South Coast Air Quality Management District. 2010. Greenhouse Gas CEQA Threshold Stakeholder Working Group Meeting #15. September 28. Website: [www.aqmd.gov/ceqa/handbook/GHG/2010/sept28mtg/ghgmtg15-web.pdf](http://www.aqmd.gov/ceqa/handbook/GHG/2010/sept28mtg/ghgmtg15-web.pdf). Accessed May 7, 2012.
- South Coast Air Quality Management District. 2011. Air Quality Significance Thresholds. Revised March 2011. Website: [www.aqmd.gov/ceqa/handbook/signthres.pdf](http://www.aqmd.gov/ceqa/handbook/signthres.pdf). Accessed May 7, 2012.
- South Coast Air Quality Management District (SCAQMD). 2011. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. Website: [www.aqmd.gov/ceqa/handbook/LST/CalEEModguidance.pdf](http://www.aqmd.gov/ceqa/handbook/LST/CalEEModguidance.pdf).
- South Coast Air Quality Management District. 2011. Portable Engine Tier Ratings. Website: [www.aqmd.gov/comply/PERP/tier.htm](http://www.aqmd.gov/comply/PERP/tier.htm). Accessed March 21, 2012.
- U.S. Environmental Protection Agency. 2003. Particle Pollution and your Health. EPA-452/F-03-001. Website: <http://epa.gov/pm/pdfs/pm-color.pdf>. Accessed April 26, 2012.
- U.S. Environmental Protection Agency. 2009. Ozone and your Health. EPA-456/F-09-001. Website: <http://www.epa.gov/airnow/ozone-c.pdf>. Accessed May 7, 2012.
- U.S. Environmental Protection Agency. 2009. Fact Sheet, Proposed Revisions to the National Ambient Air Quality Standards for Nitrogen Dioxide. July 22, 2009. Website: [www.epa.gov/air/nitrogenoxides/pdfs/20090722fs.pdf](http://www.epa.gov/air/nitrogenoxides/pdfs/20090722fs.pdf). Accessed May 7, 2012.
- U.S. Environmental Protection Agency. 2012. Green Book Nonattainment Areas for Criteria Pollutants as of August 30, 2011. Website: [www.epa.gov/air/oaqps/greenbk/](http://www.epa.gov/air/oaqps/greenbk/). Accessed April 26, 2012.

## SECTION 4: CALEEMOD MODEL OUTPUT

**Corona WRF #2 - Tertiary Filtration Project**  
**Riverside-South Coast County, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
General Light Industry	1	1000sqft
Other Asphalt Surfaces	1.4	Acres

**1.2 Other Project Characteristics**

Urbanization      Urban

Wind Speed (m/s)

Utility Company      Southern California Edison

Climate Zone      10

2.4

Precipitation Freq (Days)

**1.3 User Entered Comments**

28

Project Characteristics -

Land Use -

### 3.0 Construction Detail

#### 3.1 Mitigation Measures Construction

Water Exposed Area

#### 3.2 Trenching and pipe laying - 2012

##### Mitigated 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					
Off-Road	1.26	9.28	6.32	0.01		0.58	0.58		0.58	0.58	0.00	1,051.76		0.11		1,054.13
<b>Total</b>	<b>1.26</b>	<b>9.28</b>	<b>6.32</b>	<b>0.01</b>		<b>0.58</b>	<b>0.58</b>		<b>0.58</b>	<b>0.58</b>	<b>0.00</b>	<b>1,051.76</b>		<b>0.11</b>		<b>1,054.13</b>

##### 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										lb/day					
Hauling	0.05	0.58	0.25	0.00	0.03	0.02	0.05	0.00	0.02	0.03		81.92		0.00		81.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.03	0.29	0.00	0.05	0.00	0.05	0.00	0.00	0.00		42.91		0.00		42.97
<b>Total</b>	<b>0.07</b>	<b>0.61</b>	<b>0.54</b>	<b>0.00</b>	<b>0.08</b>	<b>0.02</b>	<b>0.10</b>	<b>0.00</b>	<b>0.02</b>	<b>0.03</b>		<b>124.83</b>		<b>0.00</b>		<b>124.94</b>

### 3.3 Backfill - 2012

#### Mitigated 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					0.00	0.00	0.00	0.00	0.00	0.00							0.00
Off-Road	5.96	47.14	19.31	0.06		2.25	2.25		2.25	2.25	0.00	6,105.85		0.53			6,117.00
<b>Total</b>	<b>5.96</b>	<b>47.14</b>	<b>19.31</b>	<b>0.06</b>	<b>0.00</b>	<b>2.25</b>	<b>2.25</b>	<b>0.00</b>	<b>2.25</b>	<b>2.25</b>	<b>0.00</b>	<b>6,105.85</b>		<b>0.53</b>			<b>6,117.00</b>

#### 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										lb/day					
Hauling	0.05	0.58	0.25	0.00	0.03	0.02	0.05	0.00	0.02	0.03		81.92		0.00		81.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.04	0.51	0.00	0.09	0.00	0.09	0.00	0.00	0.01		75.10		0.00		75.19
<b>Total</b>	<b>0.09</b>	<b>0.62</b>	<b>0.76</b>	<b>0.00</b>	<b>0.12</b>	<b>0.02</b>	<b>0.14</b>	<b>0.00</b>	<b>0.02</b>	<b>0.04</b>		<b>157.02</b>		<b>0.00</b>		<b>157.16</b>

### 3.4 Compact, paving - 2012

#### Mitigated 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					
Off-Road	2.47	16.81	8.61	0.02		1.16	1.16		1.16	1.16	0.00	1,741.33		0.22		1,745.97
Paving	3.67					0.00	0.00		0.00	0.00						0.00
<b>Total</b>	<b>6.14</b>	<b>16.81</b>	<b>8.61</b>	<b>0.02</b>		<b>1.16</b>	<b>1.16</b>		<b>1.16</b>	<b>1.16</b>	<b>0.00</b>	<b>1,741.33</b>		<b>0.22</b>		<b>1,745.97</b>

#### 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										lb/day					
Hauling	0.09	1.15	0.50	0.00	0.05	0.05	0.10	0.01	0.05	0.05		163.85		0.00		163.94
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.03	0.04	0.44	0.00	0.08	0.00	0.08	0.00	0.00	0.01		64.37		0.00		64.45
<b>Total</b>	<b>0.12</b>	<b>1.19</b>	<b>0.94</b>	<b>0.00</b>	<b>0.13</b>	<b>0.05</b>	<b>0.18</b>	<b>0.01</b>	<b>0.05</b>	<b>0.06</b>		<b>228.22</b>		<b>0.00</b>		<b>228.39</b>

### 3.5 Treatment plant grading - 2012

#### Mitigated 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					2.77	0.00	2.77	1.29	0.00	1.29							0.00
Off-Road	3.35	28.84	14.15	0.03		1.17	1.17		1.17	1.17	0.00	2,930.65		0.30			2,936.92
<b>Total</b>	<b>3.35</b>	<b>28.84</b>	<b>14.15</b>	<b>0.03</b>	<b>2.77</b>	<b>1.17</b>	<b>3.94</b>	<b>1.29</b>	<b>1.17</b>	<b>2.46</b>	<b>0.00</b>	<b>2,930.65</b>		<b>0.30</b>			<b>2,936.92</b>

#### 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										lb/day						
Hauling	0.47	5.76	2.48	0.01	0.26	0.23	0.49	0.03	0.23	0.26		819.24		0.02			819.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00			0.00
Worker	0.03	0.03	0.36	0.00	0.07	0.00	0.07	0.00	0.00	0.00		53.64		0.00			53.71
<b>Total</b>	<b>0.50</b>	<b>5.79</b>	<b>2.84</b>	<b>0.01</b>	<b>0.33</b>	<b>0.23</b>	<b>0.56</b>	<b>0.03</b>	<b>0.23</b>	<b>0.26</b>		<b>872.88</b>		<b>0.02</b>			<b>873.43</b>

### 3.6 Treatment plant construction - 2012

#### Mitigated 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					
Off-Road	3.16	27.30	9.77	0.03		1.12	1.12		1.12	1.12	0.00	3,381.59		0.28		3,387.52
<b>Total</b>	<b>3.16</b>	<b>27.30</b>	<b>9.77</b>	<b>0.03</b>		<b>1.12</b>	<b>1.12</b>		<b>1.12</b>	<b>1.12</b>	<b>0.00</b>	<b>3,381.59</b>		<b>0.28</b>		<b>3,387.52</b>

#### 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										lb/day					
Hauling	0.38	4.61	1.98	0.01	0.21	0.19	0.40	0.02	0.19	0.21		655.39		0.02		655.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.08	0.95	0.00	0.17	0.01	0.18	0.01	0.01	0.01		139.47		0.01		139.65
<b>Total</b>	<b>0.45</b>	<b>4.69</b>	<b>2.93</b>	<b>0.01</b>	<b>0.38</b>	<b>0.20</b>	<b>0.58</b>	<b>0.03</b>	<b>0.20</b>	<b>0.22</b>		<b>794.86</b>		<b>0.03</b>		<b>795.43</b>

## 4.0 Mobile Detail

### 4.1 Mitigation Measures Mobile

	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					
Mitigated	0.19	2.38	0.98	0.00	0.13	0.10	0.23	0.01	0.10	0.11		395.25		0.01		395.40
Unmitigated	0.19	2.38	0.98	0.00	0.13	0.10	0.23	0.01	0.10	0.11		395.25		0.01		395.40
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	2.00	0.00	5,200	5,200
Total	0.00	2.00	0.00	5,200	5,200

### 4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Light Industry	50.00	50.00	50.00	0.00	100.00	0.00

**Corona WRF #2 - Tertiary Filtration Project  
Riverside-South Coast County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
General Light Industry	1	1000sqft
Other Asphalt Surfaces	1.4	Acres

**1.2 Other Project Characteristics**

Urbanization      Urban

Wind Speed (m/s)

Utility Company      Southern California Edison

Climate Zone      10

2.4

Precipitation Freq (Days)

**1.3 User Entered Comments**

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Project Characteristics -

Land Use -

## 5.0 Energy Detail

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### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Light Industry	324850					94.49	0.00	0.00	95.08
Other Asphalt Surfaces	0					0.00	0.00	0.00	0.00
<b>Total</b>						<b>94.49</b>	<b>0.00</b>	<b>0.00</b>	<b>95.08</b>

## 8.0 Waste Detail

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### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Light Industry	58.18					11.81	0.70	0.00	26.47
<b>Total</b>						<b>11.81</b>	<b>0.70</b>	<b>0.00</b>	<b>26.47</b>