

**Riverside County Flood Control
and Water Conservation District**

Riverside, California



CEQA INITIAL STUDY

ADDENDUM

TO THE

**HEMET AREA DRAINAGE AND
SALT CREEK CHANNEL IMPROVEMENTS
FINAL EIR**

FOR

**HEMET MASTER DRAINAGE PLAN
LINE C, STAGE 4**

ZONE 4

August 2014

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INTRODUCTION

Regulatory Framework

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000–21177), this Initial Study has been prepared to determine potentially significant impacts upon the environment resulting from the construction, operation and maintenance of the **Hemet Master Drainage Plan Line C, Stage 4** project (collectively hereinafter referred to as the "Project"). In accordance with Section 15063 of the CEQA Guidelines, this Initial Study is a preliminary analysis by the Riverside County Flood Control and Water Conservation District (District) as Lead Agency, to inform the Lead Agency decision makers, other affected agencies and the public of potential environmental impacts associated with the implementation of the Project.

Organization of the Initial Study

The Initial Study is organized as follows:

Introduction: Provides the regulatory context for the review along a brief summary of the CEQA process.

Project Information: Provides fundamental project information, such as the project description, project location and figures.

Evaluating Environmental Impacts: Provides the parameters the District uses when determining level of impact.

CEQA Checklist: Provides an environmental checklist and accompanying analysis for responding to checklist questions.

References: Includes a list of references and various resources utilized in preparing the analysis.

Environmental Process

This Initial Study describes the expected environmental impacts of the Project in relation to the Hemet Area Drainage and Salt Creek Channel Improvements FEIR, developed and certified by the Riverside County Board of Supervisors in February 1978. This Initial Study supports the Addendum to the FEIR; FEIR addendums are not subject to a 30-day public review period.

A Notice of Determination (NOD) will be filed with the Riverside County Clerk. The NOD describes the Project and provides notice that the District has approved the Project and Addendum to the FEIR. Filing of the NOD initiates a 30-day public comment period.

PROJECT INFORMATION

1. ***Project Title:***
Hemet Master Drainage Plan Line C, Stage 4
2. ***Lead Agency Name and Address:***
Riverside County Flood Control and Water Conservation District
1995 Market Street
Riverside, CA 92501
3. ***Contact Person Email Address and Phone Number:***
Mike Wong: mwong@rcflood.org, 951.955.1233
4. ***Project Location:***
The Project area is located within the city of Hemet and is generally bounded by Johnston Avenue to the south, Mayberry Avenue to the north, Palm Avenue to the west and San Jacinto Street to the east. The Project is found within the Hemet 7.5 Series USGS Topographic Quadrangle Map, spanning Township 5 South, Range 1 West, Sections 14 and 15. The entirety of the Project is to be built within public street right-of-way and beneath existing paved streets.
5. ***Project Sponsor's Name and Address:***
None.
6. ***General Plan Designation:***
The Project site is located within the City of Hemet General Plan. Land uses within the Project area include:
 - Low density residential (2.1-5.0 dwelling units per acre) – along Whittier Avenue from approximately Gilbert Street to San Jacinto Street;
 - Low medium density residential (5.1-8.0 dwelling units per acre) – along Whittier Avenue from approximately Palm Avenue to Gilbert Street;
 - Medium density residential (8.1-18.0 dwelling units per acre) – along Whittier Avenue from Santa Fe Street to San Jacinto Street; and
 - School – northeastern corner of Whittier Avenue and Gilbert Street.
7. ***Description of Project:***
The Project entails the construction and subsequent maintenance of an underground storm drain system and appurtenances within existing street right-of-way. The Project consists of approximately 6,600 lineal feet of 72-inch reinforced concrete pipe, catch basins and associated connector pipes. The Project mainline begins approximately 120 lineal feet east of the centerline intersection of Palm and Whittier Avenues in Hemet and continues along Whittier Avenue terminating approximately 150 lineal feet east of San Jacinto Avenue. The Project is designed to convey runoff to the existing Hemet MDP Line C, Stage 3. When complete, this storm drain will provide 10-year protection to the existing development along and surrounding Whittier Avenue.
8. ***Surrounding Land Uses and Setting:***
The Project site is located within the city of Hemet. The Project surroundings consists primarily of low medium density residential (5.1-8.0 dwelling units per acre). One school, Whittier Elementary School, is located near the Project alignment, at the northeastern corner of the intersection of Gilbert Street and Whittier Avenue. The school is in existence and is depicted in the FEIR maps.

The storm drain alignment along Whittier Avenue is located within paved streets. The storm drain will connect to an existing underground storm drain, located east of the intersection of Whittier and Palm Avenues. Surrounding land use within this area is predominantly residential uses.

9. Earlier Analyses Used:

When tiering is used, the later EIR or Negative Declaration shall refer to the prior EIR and state where a copy may be examined. The later EIR or Negative Declaration should also state that the lead agency is using the tiering concept and that it is being tiered with the earlier EIR [CEQA Guidelines 15152(g)].

This Addendum, prepared for the Project, will be referring to the previously certified Hemet Area Drainage and Salt Creek Channel Improvements Final Environmental Impact Report (FEIR). The FEIR was certified by the District's Board of Supervisors (Board) on June 27, 1978.

The FEIR is available for public review at the Riverside County Flood Control and Water Conservation District, 1995 Market Street, Riverside, CA 92501.

Impacts Adequately Addressed in Earlier Analyses:

When the Lead Agency carries out a subsequent activity under a program EIR, the agency must examine the activity to determine whether new impacts could occur or new mitigations measures would be required [CEQA Guidelines 15162]. To complete this analysis, the agency should use a written checklist, such as the CEQA Environmental Checklist, to document the evaluation of the Project [CEQA Guidelines 15168(c)(4)]. If after this analysis the agency determines that no new impacts would occur, or no new mitigation measures would be required, then the agency can approve the activity as being within the scope of the project covered by the program EIR and no new environmental documents would be required [CEQA Guidelines 15168(c)(2)].

The FEIR, which included the Project, determined no impacts in the following areas:

<i>FEIR Section Name</i>	<i>Section</i>	<i>Description</i>
Land Resources	3.1	Geology and Soils, Mineral Resources
Cultural Resources	3.3	Cultural, archaeological, paleontological, and historical resources
Public Facilities	3.14	Public Services
Energy Consumption and Conservation	3.15	Fuel and/or power consumption

The following were determined to have less than significant impacts:

<i>FEIR Section Name</i>	<i>Section</i>	<i>Description</i>
Demographics	3.8	Population, employment, economic development
Economics	3.12	Cost impacts to private and public sectors

The following impacts were determined to result in less than significant impacts in the FEIR with adopted mitigation measures:

<i>FEIR Section Name</i>	<i>Section</i>	<i>Description</i>
Water Resources	3.2	Hydrology and Water Quality
Bioecological Resources	3.4	Biological Resources: Plant, wildlife, and rare/endangered species
Air Resources	3.5	Air Quality
Land Use	3.6	Agricultural & Forest Resources, Scenic Features
Open Space, Parks, and Recreation	3.7	Recreation
Transportation	3.9	Transportation and Traffic
Noise	3.10	Sound levels due to traffic and construction
Aesthetics	3.11	Visual appeal
Service Systems	3.13	Utilities and Service Systems

To ensure that the Project would not introduce any new significant impacts, the following items were re-evaluated using updated information:

- Air Quality
- Biological Resources
- Cultural Resources
- Noise

Also, analyses of Greenhouse Gases (GHGs) and Hazards and Hazardous Materials are included in the addendum, as these were not evaluated in the FEIR.

Mitigation Measures from Earlier Analysis:

All FEIR mitigation measures were considered and were 1) addressed during the design of the Project; 2) incorporated as a standard construction procedure; or 3) deemed not pertinent to the Project.

<i>Mitigation Measure</i>	<i>Assessment</i>
3.2.3	MM incorporated into Project – design incorporates catch basins to allow water to enter stormdrain.
3.4.3	MM incorporated into Project – construction will largely be within public right-of-way. MM not pertinent to project – no marsh areas are in the area of the Project.
3.5.3	MM pertinent to Project in that new air quality analyses/standards are available (re-analyze AQ) – general plan and zoning ordinances are in place and control growth appropriately to preserve air quality in the area.
3.6.3	MM not pertinent to Project – Project is in residential area at time of EIR; implementation of general plan and zoning ordinances would not change land use in Project area. No agricultural or forest resources in Project area – now or at time of EIR.
3.7.3	MM not pertinent to Project – Project is underground, not a channel.
3.8.3	MM not pertinent to Project – Project is in existing residential area and Project will not attract new homes to area.
3.9.3	MM pertinent to Project, but mitigated with standard construction procedure – through traffic will be staged and detoured during construction. Emergency vehicles and local residents will have continual access.
3.10.3	MM pertinent to Project – limiting construction work to certain hours is a standard procedure.
3.11.3	MM pertinent to Project and incorporated into Project design – modern designs for catch basins are used.
3.12.3	MM not pertinent to Project – Economics is not a checklist item.
3.13.3	MM pertinent to Project and incorporated into Project design as standard procedure – coordination with utility companies is practiced and potholing of utilities is conducted for positive verification, if necessary.

FEIR Sections 3.1 (Land Resources), 3.3 (Cultural, Archaeological, Paleontological, and Historical Resources), 3.14 (Public Facilities) and 3.15 (Energy Consumption and Conservation) were determined to have no impacts and did not have mitigation measures.

10. Other Public Agencies Whose Approval is Required:
(e.g., permits, financing approval or participation agreement)

Federal Agencies (*not "public agencies" as defined by CEQA or required to take a CEQA action*)
None.

State Agencies
None.

City/County Agencies
City of Hemet: Approval of construction activities within city maintained road right-of-way.

Financing Approval or Participation Agreements
None.

Figure 1: Section 18 Public Hearing Map

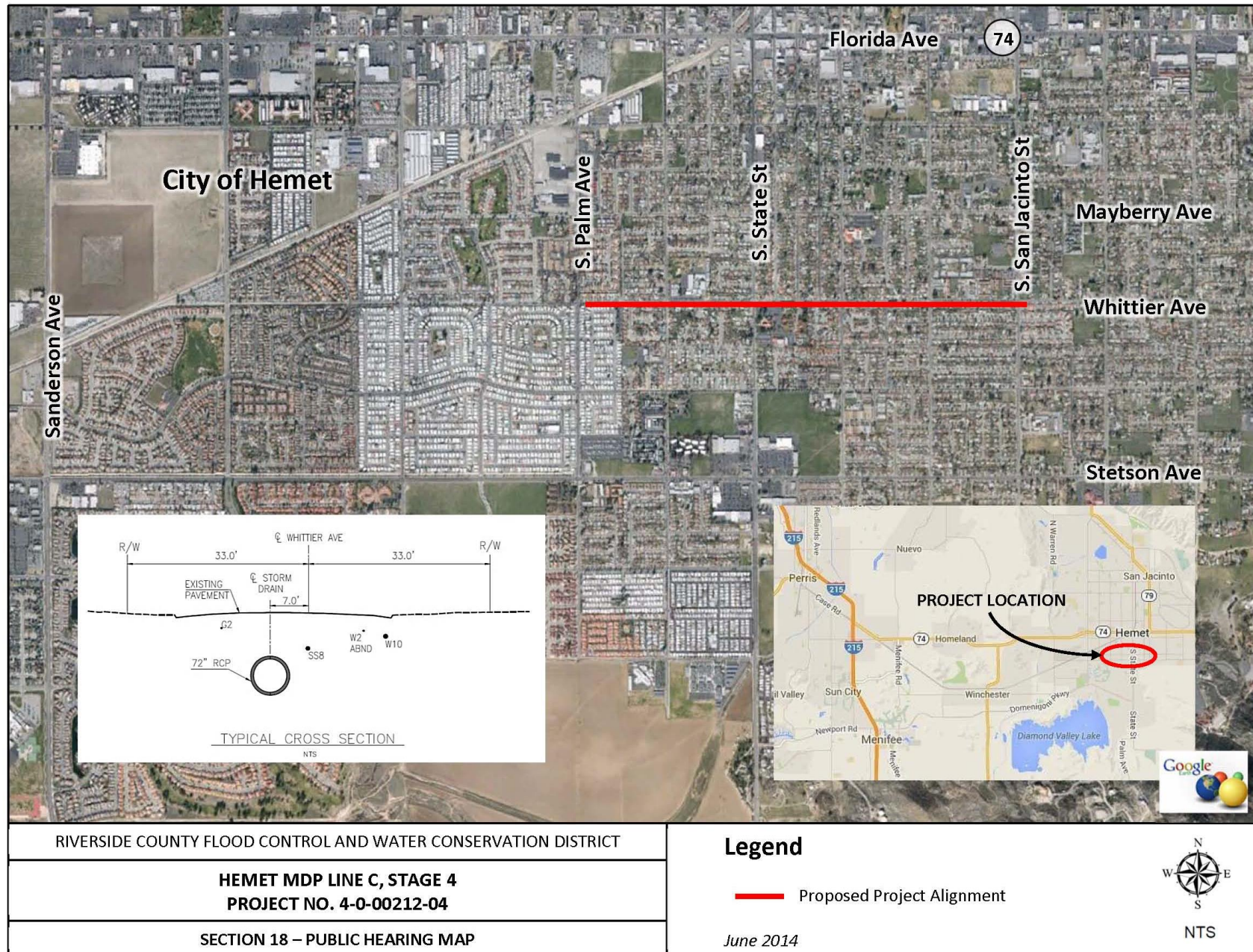
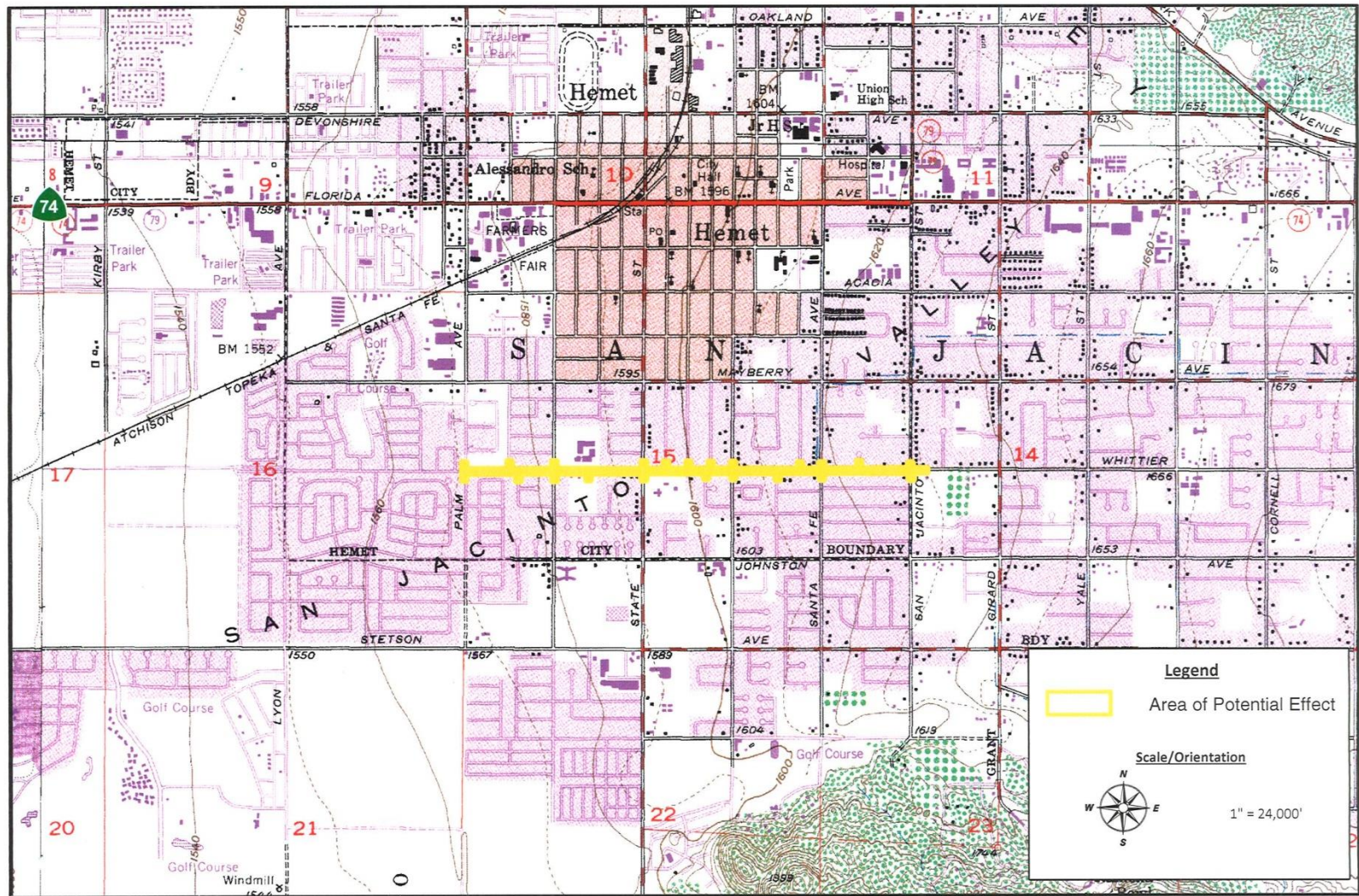


Figure 2: USGS Vicinity Map



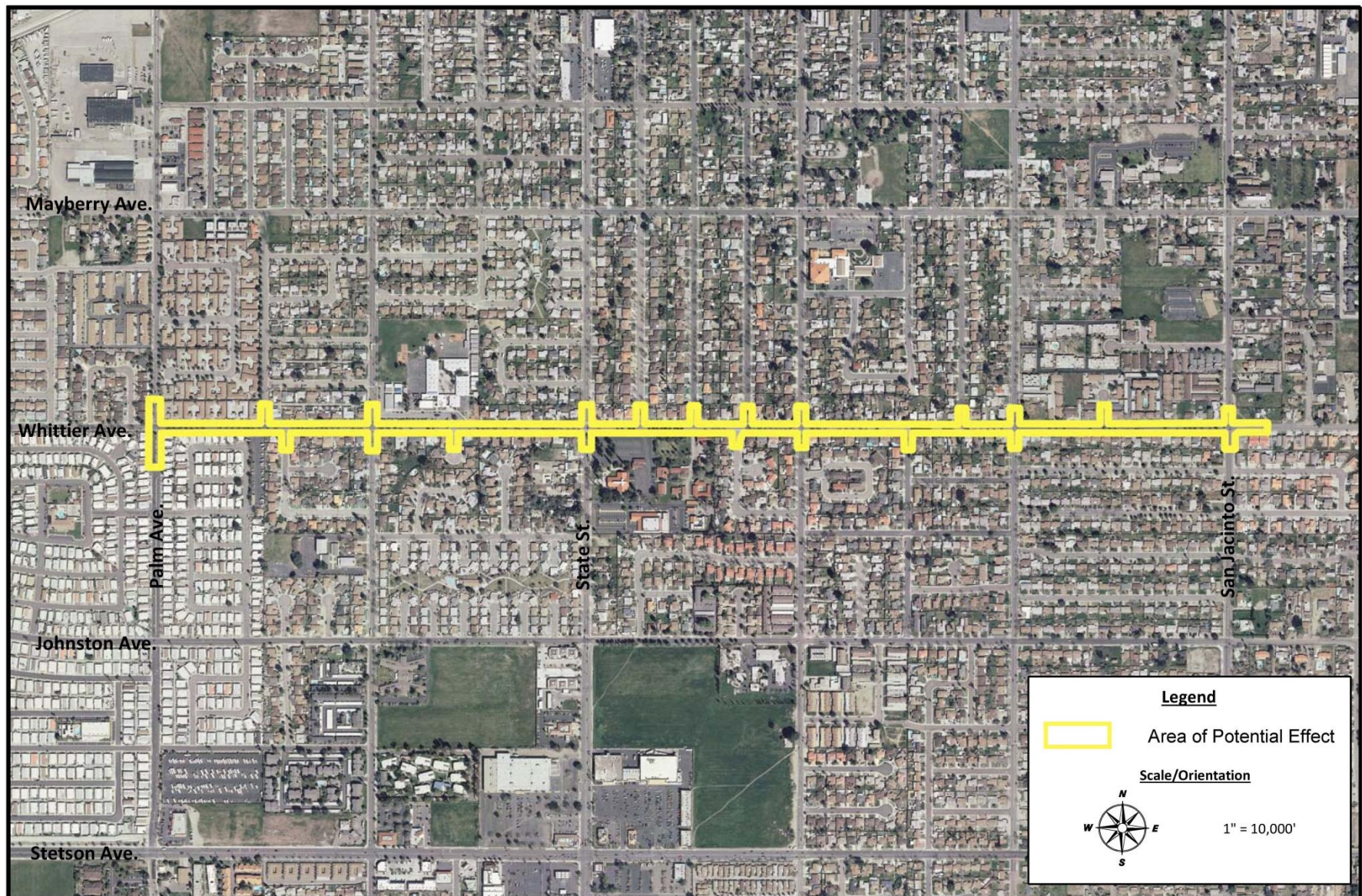
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

Hemet MDP Line C, Stage 4
Project No. 4-0-00212-04

USGS Map



Figure 3: Vicinity Map



RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

Hemet MDP Line C, Stage 4
Project No. 4-0-00212-04

Vicinity Map



Figure 4: Photos



Photo Station 1: View facing east on Whittier Avenue at San Jacinto Street



Photo Station 2: View facing west on Whittier Avenue at San Jacinto Street



Photo Station 3: View facing northeast, intersection of Whittier Avenue and State Street



Photo Station 4: View facing northeast at Whittier Elementary School, intersection Whittier Avenue and Gilbert Street

CEQA ENVIRONMENTAL CHECKLIST

I. AESTHETICS				
<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) <i>Have a substantial adverse effect on a scenic vista?</i>	☐	☐	☐	☒
No Impact. The FEIR determined that construction of the MDP facilities would have no significant adverse impact on natural scenic features. The Project follows the same alignment as analyzed in the FEIR. Therefore, the Project will not have an impact on a scenic vista. Source: Project Design, FEIR Section 3.1.2				
b) <i>Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?</i>	☐	☐	☐	☒
No Impact. The FEIR determined that construction of the MDP facilities would have no significant adverse impacts on natural scenic features and cultural resources. The Project follows the same alignment as analyzed in the FEIR and will not have an impact on scenic resources. Source: Project Design, FEIR Sections 3.1.2 and 3.3.2				
c) <i>Substantially degrade the existing visual character or quality of the site and its surroundings?</i>	☐	☒	☐	☐
Less than Significant Impact with Mitigation. The FEIR concluded that construction of the Flood Control structures on visual character or quality of the site/surroundings would have a less than significant impact with mitigation measures implemented. The FEIR mitigates this impact by incorporating modern catch basin inlet design. The Project follows the same alignment as analyzed in the FEIR and modern catch basin designs have been included in the Project, implementing the FEIR's mitigation measure. Therefore, the Project will have a less than significant impact with mitigation to the visual character or quality of the site and its surroundings. Source: Project Design; FEIR Sections 3.11.2.3 and 3.11.3				
d) <i>Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?</i>	☐	☐	☒	☐
Less than Significant Impact. The FEIR did not evaluate impacts of light or glare. However, the Project would not create new or additional sources of light or glare, either during construction or operation. Only under rare emergency conditions would the use of artificial lighting be anticipated; however, any impacts would be temporary and, therefore, less than significant. Source: Project Design				

II. AGRICULTURAL & 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 Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
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?	☐	☐	☐	☒
No Impact. The FEIR determined that MDP facility impacts on existing farmland would be less than significant with mitigation. The FEIR's mitigation measure is to adhere to zone designations, policies and General Plan elements. However, the Project (Hemet MDP Line C, Stage 4) was located within an existing residential area and follows the same alignment as analyzed in the FEIR. The Project will not have impacts on Agricultural Resources and Population and Housing resulting from the construction. Therefore, the Project will not convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance to non-agricultural use. This Project would not need to implement the FEIR mitigation measure. Source: FEIR Sections 3.6.2 and 3.6.3				
b) Conflict with existing agricultural zoning, agricultural use or land subject to a Williamson Act contract or land within a Riverside County Agricultural Preserve?	☐	☐	☐	☒
No Impact. See response II.a). The Project will not conflict with existing agricultural zoning, agricultural use or land subject to a Williamson Act contract. Source: FEIR Section 3.6.2				
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒
No Impact. See response II.a). The Project will not result in conversion of Farmland to non-agricultural use. Source: FEIR Section 3.6.2				
d) 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))?	☐	☐	☐	☒
No Impact. See response II.a). The Project follows the same alignment as analyzed in the FEIR and was located within a residential area. The Project site is still located within that residential area and not located within areas zoned forest land, timberland or timberland production. Therefore, the Project will not conflict with existing zoning for, or cause rezoning of, forest land, timberland or timberland zoned timberland production. Source: FEIR Section 3.6.2; RCIP				

e) <i>Result in the loss of forest land or conversion of forest land to non-forest use?</i>	☐	☐	☐	☒
No Impact. See responses II.a) and II.d). The Project follows the same alignment as analyzed in the FEIR and forest land does not exist within the Project site. Therefore, the Project will not result in the loss of forest land or conversion of forest land to non-forest use. Source: FEIR Section 3.6.2				

III. AIR QUALITY AND GREENHOUSE GAS EMISSIONS

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.

The FEIR determined that construction would directly impact air quality. The FEIR stated that impacts to air quality were dependent upon two factors: 1) the standards for ambient levels of individual pollutants that exist in future years, and 2) the level of development allowed by municipal and county governments. Due to updated air quality standards and analysis methods, air quality analyses were conducted to determine whether the Project would have an impact to the environment.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

Less than Significant Impact. The Project is located within the South Coast Air Basin (SCAB), a region that currently exceeds and is in violation of state and national ambient air quality standards for ozone (O₃) and particulate matter (PM) less than 10 and 2.5 microns in diameter (PM₁₀ and PM_{2.5}). The South Coast Air Quality Management District (SCAQMD) regulates air quality emissions within the SCAB and has prepared a series of Air Quality Management Plans (AQMP), the most recent of which was adopted by the Governing Board of the SCAQMD on June 1, 2007 (2007 AQMP). The 2007 AQMP is designed to meet applicable federal and state requirements, including attainment of ambient air quality standards. To assess the impacts of Project-related construction and operational emissions, the SCAQMD has established regional significance thresholds.

As described below in III.b), construction and subsequent maintenance emissions from the Project will only result in temporary, less than significant impacts to air quality. The Project must also comply with applicable provisions of Rule 403 for the control of fugitive dust. As such, the Project will not conflict with or obstruct implementation of the 2007 AQMP.

Source: AQMP; SCAQMD

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
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Less than Significant Impact. The SCAB currently exceeds and is in violation of state and national ambient air quality standards for O₃, PM₁₀ and PM_{2.5}. The SCAQMD has established regional significance thresholds to help assess the impacts of Project-related construction and operational emissions. Construction and operational emissions from the Project that are below these thresholds are considered less than significant. Subsequent maintenance of the flood control facility is expected to release infrequent and minor air emissions associated with trucks used on an as-needed basis for inspection or maintenance purposes. Temporary construction emissions would come from heavy equipment exhaust, construction-related trips by workers and associated fugitive dust generation from excavation and grading activities. Construction emissions thresholds, as recommended by the SCAQMD, and estimated construction emissions for the Project are noted in Table 1. The estimated construction emissions are calculated using the CalEEMod (version 2011.1.1) air pollution model. For the purposes of running the model, it was assumed that the construction would occur in a five (5) month period. The construction emissions estimates are based on equipment operating eight (8) hours per day, even though some equipment will actually sit idle during the construction process. These estimates are also based on unmitigated emissions. See CalEEMod printout in Appendix A for the detailed emissions reports.

Table 1: Estimated Construction Air Quality Emissions

Criteria Pollutant	SCAQMD Significance Criteria for Construction (lbs/day)	Project Estimated Construction Emissions (lbs/day)
Nitrogen Oxides	100	92.48
Reactive Organic Gases	75	13.35
Sulfur Dioxide	150	0.12
Carbon Monoxide	550	64.56
PM10	150	11.20
PM2.5	55	6.00

Based on the estimated values that are shown above in Table 1, the temporary construction emissions from the Project will not exceed the SCAQMD's recommended significant thresholds for construction. In addition, compliance with Rule 403 for the control of fugitive dust would ensure that the Project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Source: Project Design; CARB; SCAQMD; CalEEMod

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

☐
☐
☒
☐

Less than Significant Impact. The SCAB is designated as a non-attainment area for O₃, PM_{2.5} and PM₁₀. Since the Project does not conflict with any land uses, it is in conformance with the AQMP, and the Project's short-term emissions do not exceed the SCAQMD-established thresholds of significance. The Project's net increase in criteria pollutant emissions, for which the Project region is in non-attainment, is not cumulatively considerable and impacts are considered less than significant.

Source: SCAQMD

d) *Expose sensitive receptors to substantial pollutant concentrations?*

☐
☐
☒
☐

Less than Significant Impact. Temporary construction emissions would result from heavy equipment exhaust, construction-related trips by workers, and associated fugitive dust generation from excavation during storm drain and outlet installation and paving the existing road after storm drain installation. The Project alignment primarily follows existing roads with adjacent occupied structures (e.g., residential, industrial and commercial). The SCAQMD has developed suggested Localized Significance Thresholds (LSTs) to assist lead agencies in assessing potential air quality impacts near emission sources. LSTs are applicable to oxides of nitrogen (NO_x), carbon monoxide (CO), particulate matter less than 10 microns in aerodynamic diameter (PM₁₀) and particulates less than 2.5 microns in aerodynamic diameter (PM_{2.5}). According to the SCAQMD, the LSTs represent the maximum emissions from a Project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. LSTs are also based on the ambient concentrations of the specific pollutants within each source receptor area (SRA) and the distance to the nearest sensitive receptor.

Construction and operational emissions from the Project are considered less than significant. Construction emission thresholds were determined using SCAQMD's mass rate look up table for SRA No. 28 Hemet/San Jacinto Valley. To estimate the localized construction emissions from the Project, Project specific parameters were used to modify the SCAQMD One Acre Site Example spreadsheets for the paving phase and the SCAQMD Two Acre Site Example spreadsheets for the excavation phase. Subsequent operation and maintenance of the flood control facility is expected to require infrequent and small numbers of equipment associated with trucks/tractors used on an as-needed basis for inspection or maintenance purposes. Therefore,

only the Project related construction emissions are evaluated in this analysis since they represent the maximum amount of pollutants resulting from the Project. The construction emissions estimates are based on every piece of equipment operating a full eight (8) hours per day (even though some equipment will actually sit idle during the construction process). See Appendix B for the print out results of the spreadsheets.

The estimated localized construction emissions from excavation and paving activities are shown below in Table 2 and Table 3, respectively.

Table 2: Estimated Unmitigated Onsite Maximum Daily Construction Excavation Emissions

Criteria Pollutants	LST for 2 Acre Construction Area With Receptors at 25 Meters (lbs/day)	Estimated Maximum Daily Construction Onsite Emissions (lbs/day)	Exceed LST?
Nitrogen Oxides (NO _x)	234	11.9	No
Carbon Monoxides (CO)	1100	6.5	No
Particulates (PM ₁₀)	7	2.4	No
Particulates (PM _{2.5})	4	1.1	No

Table 3: Estimated Onsite Maximum Daily Construction Emissions from Paving (pounds per day unmitigated)

Criteria Pollutants	LST for 1 Acre Construction Area With Receptors at 25 Meters (lbs/day)	Estimated Maximum Daily Construction Onsite Emissions (lbs/day)	Exceed LST?
Nitrogen Oxides (NO _x)	162	22.7	No
Carbon Monoxides (CO)	750	11.8	No
Particulates (PM ₁₀)	4	1.6	No
Particulates (PM _{2.5})	3	1.5	No

Based on the estimated values that are shown above in Table 2 and Table 3, emissions from the Project are below the thresholds considered significant.

Source: LST Guidance

e) *Create objectionable odors affecting a substantial number of people?* ☐ ☐ ☒ ☐

Less than Significant Impact. Portions of the Project site are located adjacent to occupied structures (e.g., residential). Construction activities may produce odors associated with the operation of heavy equipment; however, the generation of any odors would be of short duration and not considered a significant impact.

Source: Project Design

f) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?* ☐ ☐ ☒ ☐

Less than Significant Impact. On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05 which sets forth a series of target dates by which statewide greenhouse gas (GHG) emissions would be reduced: 1) 2000 levels by the year 2010; 2) 1990 levels by the year 2020; and 3) eighty percent (80%) below the 1990 levels by the year 2050. In 2006, the California State Legislature adopted AB 32 (Global Warming Solutions Act of 2006) and the Governor signed it into law. AB 32 requires the California Air Resources

Board (ARB), the state agency charged with regulating statewide air quality, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by the year 2020. GHG, as defined under AB 32, include carbon dioxide (CO₂), methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons and perfluorocarbons. CO₂ has been identified as the most important anthropogenic GHG because it comprises the majority of total GHG emissions emitted per year and it is very long-lived in the atmosphere.

The main source of GHG emissions associated with the Project is the previously described short-term emissions related to the use of heavy equipment. CalEEMod estimated that the temporary Project construction emissions will be 220.32 metric tons of CO₂ equivalents per year (MTCO_{2eq/yr}). Subsequent operation and maintenance of the Project is expected to release infrequent and minor GHG emissions far less than the estimated construction emissions of 220.32 MTCO_{2eq/yr}.

Currently, there are no established significance thresholds from federal or state agencies. However, in October 2008, the ARB and SCAQMD issued the draft "Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act" and the "Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold", respectively. Each agency's draft guidance material represents a potential analytical framework for addressing CEQA significance thresholds for GHG. In general, interim GHG thresholds of 7,000 and 10,000 MTCO_{2e/yr} are recommended by ARB and SCAQMD, respectively. The estimated Project construction GHG emissions of 394.19 MTCO_{2e/yr} is well below the available interim GHG threshold recommended by the ARB and SCAQMD. Therefore, the Project will not generate GHG emissions that would cause significant direct or indirect impacts on the environment.

Source: CalEEMod; CARB; SCAQMD

g) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

☐
☐
☒
☐

Less than Significant Impact. As discussed above, the GHG emissions generated by the Project are temporary and fall well below the recommended significance thresholds. Therefore, the Project will not conflict with any plan, policy or regulation of an agency adopted for the purpose of reducing emissions of GHG.

Source: CalEEMod; CARB; SCAQMD

IV. BIOLOGICAL RESOURCES

The FEIR evaluated impacts to plant, wildlife and rare/endangered species; however, due to the availability of the Western Riverside MSHCP, the Project was evaluated on its impact to 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 Wildlife or U.S. Fish and Wildlife Service?*

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
☐	☐	☐	☒

No Impact. The Project area is not located within a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) survey area. The Project area is located within existing street rights-of-way.

Source: GIS.

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
☐	☐	☐	☒

No Impact. The Project area is located within existing street rights-of-way. Therefore, the Project will not have a substantial adverse effect on any riparian habitats or other sensitive natural communities.

Source: GIS; FEIR Section 3.4.

c) *Have a substantial adverse effect on biological resources involved within a jurisdictional water feature as defined by federal, state or local regulations (e.g., Section 404 of the Clean Water Act, Section 401 of the Clean Water Act, Section 1602 of California Fish and Game Code, Porter-Cologne Water Quality Control Act, etc.) through direct removal, filing, hydrological interruption, or other means?*

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
☐	☐	☐	☒

No Impact. The Project area is located within existing street rights-of-way. Therefore, the Project will not have a substantial adverse effect on biological resources involved within a jurisdictional water feature.

Source: Project design, GIS

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?*

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
☐	☐	☐	☒

No Impact. The Project area is located within existing street rights-of-way. Therefore, the Project will not substantially interfere 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.

Source: MSHCP, Project design

e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
☐	☐	☐	☒

No Impact. The Project is not subject to local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The Project is subject to MSHCP compliance. Refer to response IV.f) for a discussion of MSHCP compliance.

Source: Project Design; MSHCP

f) <i>Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?</i>	☐	☐	☐	☒
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No Impact. The County of Riverside Board of Supervisors adopted the MSHCP on June 23, 2003. The MSHCP is a comprehensive, multi-jurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats in Western Riverside County.

The District is an MSHCP permittee, and the Project must be consistent with the applicable provisions of the MSHCP. A summary of the obligations specific to implementation by the District is described in Section 13.4 of the Implementing Agreement (IA) and includes:

- Adopt and maintain resolutions as necessary to implement the requirements and to fulfill the purposes of the Permits, the MSHCP and the IA for covered activities. Such requirements include compliance with: 1) the policies for the protection of species associated with Riparian/Riverine areas and vernal pools as set forth in Section 6.1.2 of the MSHCP; 2) the policies for the protection of narrow endemic plant species as set forth in Section 6.1.3 of the MSHCP; 3) the requirements of Section 7.3.7 of the MSHCP; 4) the urban/wildlands interface guidelines as set forth in Section 6.1.4 of the MSHCP; and 5) the BMPs and the siting and design criteria as set forth in Section 7.0 and Appendix C of the MSHCP. The requirements also include conducting surveys as set forth in Section 6.3.2 of the MSHCP.
- Contribute mitigation through payment of 3% of total capital costs for a covered activity. Such payment may be offset through acquisition of replacement habitat or creation of new habitat for the benefit of covered species, as appropriate. Such mitigation shall be implemented prior to impacts to covered species and their habitats.
- Manage land owned or leased within the MSHCP Conservation Area that has been set aside for conservation purposes pursuant to a management agreement to be executed between Riverside County Flood Control and Water Conservation District and the CDFW.
- Participate as a member of the Reserve Management Oversight Committee (RMOC).
- Carry out all other requirements of the MSHCP, the MSHCP permits and the IA.

Project Site Location Within MSHCP Area

Regions of the MSHCP have been organized into Area Plans that generally follow political jurisdictional boundaries. The Project site is located within the San Jacinto Valley Area Plan. The Project is not located within a criteria cell.

Section 6.1.2

In accordance with MSHCP Section 6.1.2, consistency determinations of the Project area and surrounding lands must be conducted for Riparian/Riverine, vernal pool and listed fairy shrimp habitats. Based on field assessment, the Project area does not contain riparian/riverine areas, vernal pools or other seasonal pools with the potential to support listed fairy shrimp. In addition, the Project alignment does not contain suitable habitat for least Bell's Vireo, Southwestern Willow Flycatcher or Western Yellow-Billed Cuckoo. Therefore, no further assessments and/or surveys or conservation measures are required.

The Project is consistent with Section 6.1.2 of the MSHCP.

Section 6.1.3

In accordance with MSHCP Section 6.1.3, habitat assessments and/or focused surveys for certain narrow endemic plant species are required for properties within mapped survey areas. The Project area is not within a narrow endemic plant species survey area. In addition, it was determined at the site that the Project area does not support suitable habitat for any of the narrow endemic plant species or criteria area plant species. Therefore, no further assessments and/or surveys or conservation measures are required.

The Project is consistent with Section 6.1.3 of the MSHCP.

Section 6.1.4

Section 6.1.4 of the MSHCP addresses indirect impacts from developments in proximity to MSHCP Conservation Areas. Pursuant to Section 6.1.4 of the MSHCP, projects in close proximity to the MSHCP Conservation Area are required to incorporate mechanisms to address indirect effects to the MSHCP Conservation Area. The Project is not located within or adjacent to an existing MSHCP Conservation Area. Therefore, no further analysis or implementation of any conservation measures is required.

The Project is consistent with Section 6.1.4 of the MSHCP.

Section 6.3.2

Pursuant to MSHCP Section 6.3.2, habitat assessments and/or focused surveys for certain additional plant and animal species are required for properties within mapped survey areas. The Project area is not within any additional species survey areas. As the Project area is within existing street rights-of-way, the Project area lacks suitable habitat to support animal and plant species of concern. Therefore, no further surveys or conservation measures are required.

The Project is consistent with Section 6.3.2 of the MSHCP.

Section 7.3.7

Section 7.3.7 defines flood control facilities that are undertaken by a permittee within the Criteria Area as Covered Activities. Per Section 7.1, although not located within a Criteria Area, the Project is undertaken by a permittee and is a Covered Activity as defined in the MSHCP.

The Project is consistent with Section 7.3.7 of the MSHCP.

Section 7.5.3

Section 7.5.3 of the MSHCP outlines construction guidelines when constructing facilities within the Criteria Area or within P/QP lands. The Project is not located within a Criteria Area and is not within P/QP lands. The Project will consider and implement all applicable Construction Guidelines per MSHCP Section 7.5.3 and the BMPs contained in Appendix C.

The Project is consistent with Section 7.5.3 of the MSHCP.

Based on the above analysis, the Project is consistent with the MSHCP.

Source: Project Design; MSHCP

V. CULTURAL RESOURCES

The FEIR determined that there will be no significant impacts on cultural resources. However, GIS data shows the Project is located within an area with high potential/sensitivity for paleontological resources. Thus, the Project was evaluated on its impact on cultural resources.

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
☐	☐	☒	☐

Less than Significant Impact. Based on a record search of prehistoric and historic cultural resources conducted for the Project, there are no known cultural resources within or adjacent to the Project area. The Project will not cause a substantial adverse change in the significance of a historic resource. The Project area is located within existing street right-of-way, subject to previous paving activities, and contains previously-installed underground utilities such as sewer and water services. There are no known historic resources that exist within the Project area. Therefore, the impact will be less than significant. Moreover, the District routinely implements on all construction projects the following standard operating procedure related to historical resources that would further reduce the already less than significant impacts:

If historic resources are discovered during Project construction, all work in the area of the find shall cease and a qualified archaeologist or a representative of the Soboba Band of Luiseño Indians shall investigate the find, and make recommendations for treatment. Construction activities will not resume in the area of discovery until the archaeologist gives his/her explicit approval. Based on the above information, the Project will have a less than significant impact to historical resources.

Source: EIC; Project Design

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

☐	☐	☒	☐
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Less than Significant Impact. Results of the EIC records search indicated that the Project area has the potential for cultural resources and that a field survey be conducted.

The District also received a Sacred Lands File (SLF) search from the Native American Heritage Commission (NAHC) for the Project area. The SLF failed to indicate the presence of Native American cultural resources within ½ mile of the Project area; however, the NAHC recommended contacting Native American tribes for further information. In accordance with the NAHC recommendations, all the Native American tribes included in the NAHC's contact list were contacted via letter regarding information that they may have concerning Native American cultural resources in the Project area.

The District received written comments from the Pala Band of Mission Indians (Pala Band), the Rincon Band of Luiseño Indians (Rincon Band) and the Soboba Band of Luiseño Indians (Soboba Band). The Pala Band of Mission Indians indicated that the Project is located outside of their traditional use area and had no objections to the Project. The Rincon Band of Luiseño Indians responded that the Project area is outside of the Rincon's Historic boundaries and referred the District to the Pechanga or Soboba Bands. The Pechanga Band confirmed via telephone conversation that the Project area was outside of their area and deferred to the Soboba Band. The Soboba Band's response letter indicated that the Project site is in close proximity to known tribal village sites and requested a consultation with the District. The District consulted with the Soboba Band's Cultural Resource Department on August 20, 2014. There are no known cultural resources within the Project area, however the Project area is located between village sites and it is possible that travelers between the villages may have crossed the Project area. Due to the lack of known cultural resources within the Project area, the Project's impact to cultural resources will be less than significant. The District routinely implements on all construction projects the following standard operating procedure related to archaeological resources that

would further reduce the already less-than-significant impacts:

If cultural resources are discovered during project construction, all work in the area of the find shall cease, and a qualified archaeologist or a representative of the Soboba Band of Luiseño Indians shall investigate the find and make recommendations for treatment. Construction activities will not resume in the area of discovery until the archaeologist gives his/her explicit approval.

Source: EIC; NAHC; Project Design

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

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Less than Significant Impact. The Project area is underlain by young alluvial deposits, generally described as predominantly gravel, sand and silt, from the Holocene and late Pleistocene eras. According to the Riverside County Land Information System (RCLIS), the Project area has a high potential/sensitivity for paleontological resources. In order to avoid potential impacts to paleontological resources, the following standard operating procedure will be implemented:

An approved paleontological monitor shall spot-check the excavated areas during construction. If paleontological resources are discovered during construction, all work in the area of the find shall cease and a qualified paleontological resources specialist will evaluate the find. Any discovered paleontological resources that merit long-term consideration shall be collected and reported in accordance with standard paleontological management practices. Construction activities will not resume in the area of discovery until the archaeologist gives his/her explicit approval.

Source: GIS, Project Design

d) *Disturb any human remains, including those interred outside of formal cemeteries?*

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Less than Significant Impact. The Project alignment is not located on or adjacent to a known formal or informal cemetery. No impacts to human remains, including those interred outside of formal cemeteries are anticipated. In the unlikely event that human remains are encountered on the Project site, no further disturbance will occur until the Riverside County Coroner has made a determination of their origin pursuant to Health and Safety Code 7050.5 and Public Resources Code Section 5097.98. The Riverside County Coroner must be notified within 24 hours of the discovery. If the County Coroner determines that the remains are of Native American descent, the Native American Heritage Commission (NAHC) must be contacted within 24 hours to determine the most likely descendent for this area. Once the most likely descendent is determined, treatment of the Native American human remains will proceed pursuant to Public Resources Code Section 5097.98. Based on the above information, the Project will have a less than significant impact.

Source: Project Design

VI. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) <i>Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:</i>				
i) <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.</i>	☐	☐	☐	☒
No Impact: The FEIR determined that construction of MDP facilities would have no significant impact on geology or seismicity. The Project follows the same alignment as analyzed in the FEIR; thus, the Project will not have an impact on geology or seismicity. Source: FEIR Sections 3.1.1.3 and 3.1.2; GIS; GeoTech				
ii) <i>Strong seismic ground shaking?</i>	☐	☐	☒	☐
Less than Significant Impact. The FEIR determined that construction of MDP facilities would have no significant impact on geology or seismicity. The Project follows the same alignment as analyzed in the FEIR; thus, the Project will not have an impact on geology or seismicity. Source: FEIR Section 3.1.1.3				
iii) <i>Seismic-related ground failure, including liquefaction?</i>	☐	☐	☒	☐
Less than Significant Impact. The FEIR determined that construction of MDP facilities would have no significant adverse impact on geology or seismicity. The Project follows the same alignment as analyzed in the FEIR; thus, the Project will not have an impact on geology or seismicity. Source: FEIR Section 3.1.1.3				
iv) <i>Landslides or mudflows?</i>	☐	☐	☐	☒
No Impact. The FEIR determined that construction of MDP facilities would have no significant impact on geology or seismicity. The Project follows the same alignment as analyzed in the FEIR; thus, the Project will not have an impact on geology or seismicity. Source: Project Design; RCIP; GIS; FEIR Section 3.1.1.3				
b) <i>Result in substantial changes in topography, unstable soil conditions from excavation, grading or fill, or soil erosion or the loss of topsoil?</i>	☐	☐	☒	☐
Less than Significant Impact. The FEIR determined that construction of MDP facilities would have no significant impact on geology, topography, or seismicity. The Project follows the same alignment as analyzed in the FEIR; thus, the Project will not have an impact on geology, topography, or seismicity. Source: Project Design; FEIR Section 3.1.2				

c) <i>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?</i>	☐	☐	☒	☐
Less than Significant Impact. The FEIR determined that construction of MDP facilities would have no significant impact on geology or seismicity. The Project follows the same alignment as analyzed in the FEIR; thus, the Project will not have an impact on geology or seismicity. Source: GeoTech; FEIR Section 3.1.1.3				
d) <i>Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994 or most current edition), creating substantial risks to life or property?</i>	☐	☐	☒	☐
Less than Significant Impact. The FEIR determined that construction of MDP facilities would have no significant impact on geology or seismicity. The Project follows the same alignment as analyzed in the FEIR; thus, the Project will not have an impact on geology or seismicity. Source: GeoTech; FEIR Section 3.1.1.2				
e) <i>Have soils incapable of adequately supporting any structures, fill or other improvements associated with the project?</i>	☐	☐	☒	☐
Less than Significant Impact. The FEIR determined that construction of MDP facilities would have no significant impact on geology or seismicity. The Geotechnical Investigation, conducted during the design of the Project, did not identify any support issues with existing soils. The Project will follow the recommendations of the Geotechnical Investigation Report to ensure that the soils are capable of adequately supporting the storm drain system. Source: GeoTech; Project Design; FEIR Section 3.1.1.2				

VII. HAZARDS AND HAZARDOUS MATERIALS

The FEIR did not evaluate impacts on Hazards and Hazardous Materials. The Project was evaluated on potential impacts to Hazards and Hazardous Materials.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) <i>Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</i>	☐	☐	☒	☐
Less than Significant Impact. Construction and subsequent maintenance of the Project does not involve the routine use or transport of hazardous materials beyond the short-term use of petroleum-based fuels, lubricants, pesticides and other similar materials during construction and maintenance activities. The construction phase may include the transport of gasoline and diesel fuel to the Project site and on-site storage for the sole purpose of fueling construction equipment. BMPs stipulating proper storage of hazardous materials and vehicle fueling will be implemented during construction. All transport, handling, use and disposal of substances such as petroleum products, solvents and paints related to operation and maintenance of the Project will comply with all federal, state and local laws regulating the management and use of hazardous materials. Therefore, impacts related to creating a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials will be less than significant. Source: Project Design				
b) <i>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?</i>	☐	☐	☒	☐
Less than Significant Impact. Since the Project will comply with measures including construction BMPs, transport and handling laws regulating the management and use of hazardous materials, potential impacts will be less than significant. See response VII.a). Source: Project Design				
c) <i>Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</i>	☐	☐	☒	☐
Less than Significant Impact. An existing school, Whittier Elementary School, is located adjacent to the Project area at the intersection of Gilbert Street and Whittier Avenue. Impacts related to hazardous emissions or acutely hazardous materials, substances, or wastes due to Project construction and/or maintenance will have a minimal impact. See Section VII.a). Source: Project Design				
d) <i>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?</i>	☐	☐	☒	☐
Less than Significant Impact. A review of the Department of Toxic Substances Control's Hazardous Waste and Substances List (Cortese List) indicated that the Project is not located on any identified hazardous materials sites. In addition, a review of the State Water Resources Control Board's Leaking Underground Storage Tank (LUST) Geotracker database indicates that there are no currently active hazardous material cleanup sites within the Project area. However, in the unlikely event of discovery of previously unknown				

hazardous wastes or materials are encountered in the field during construction, ground disturbance activities in the vicinity of the discovery shall cease until a qualified hazardous materials management specialist can assess the potentially hazardous substances and, if necessary, develop appropriate management measures in coordination with the appropriate regulatory agencies.

Source: DTSC, SWRCB

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?*

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Less than Significant Impact. Although the Project is not located within an airport's land use plan, it is located approximately two miles east of Hemet-Ryan Airport, a public use airport. Safety hazards may temporarily be present within the Project area during construction. Safety protocols including a traffic plan and signage will alert residents and workers in the area of potential safety hazards associated with construction.

Source: RCIP; AirPlan; GIS; Project Design

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?*

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No Impact. The Project is located approximately 12 miles east of the Perris Valley Airport. The Project does not include development that would result in a safety hazard for people residing or working within the Project area. No impacts are anticipated.

Source: Project Design; AirPlan

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

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Less than Significant Impact. Neither the construction nor subsequent maintenance of the Project is expected to impair implementation of or physically interfere with the County's Emergency Operation Plan and Multi-Jurisdictional Local Hazard Mitigation Plan. Vehicular access will be maintained and/or detours will be provided during Project construction. It is also standard procedure for the District to notify public safety agencies prior to commencing Project construction activity.

Source: Project Design

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?*

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No Impact. The Project area is not located adjacent to Wildlands. Additionally, according to Figure 11 of the San Jacinto Valley Area Plan of the Riverside County General Plan (Wildfire Susceptibility), the Project is not located in an area susceptible to wildfires.

Source: Project Design; RCIP

VIII. HYDROLOGY AND WATER QUALITY

The FEIR only evaluated impacts to drainage and groundwater resources. The FEIR concluded that the construction of channel embankments that would have a less than significant impact with mitigation measures implemented. The FEIR would mitigate by providing openings in the embankments, allowing water to drain into the channel. However, this mitigation measure does not apply to the Project as it is underground and flows will directly enter into the facility.

Would the project:

a) *Violate or conflict with any adopted water quality standards or waste discharge requirements?*

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
☐	☐	☒	☐

Less than Significant Impact. The FEIR did not evaluate impacts to adopted water quality standards or waste discharge requirements. However, the District is required to comply with the NPDES Municipal Separate Storm Sewer System (MS4) Permit, Board Order R8-2010-0033, issued by the Regional Water Quality Control Board – Santa Ana Region (SARWQCB). The Project would not create new sources of stormwater pollutants, therefore, would be in compliance with the MS4 Permit.

Source: Project Design; NPDES

b) *Result in substantial discharges of typical stormwater pollutants (e.g. sediment from construction activities, hydrocarbons, and metals from motor vehicles, nutrients and pesticides from landscape maintenance activities, metals of other pollutants from industrial operation,) or substantial changes to surface water quality including, but not limited to, temperature, dissolved oxygen, pH, or turbidity?*

☐	☐	☒	☐
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Less than Significant Impact. The Project would not create new sources of stormwater pollutants. Although it would change the timing of the delivery of storm runoff from adjacent developed area to the existing underground storm drain, Hemet MDP Line C, Stage 3, the impact is not expected to be significant. See response VIII.a).

Source: Project Design; NPDES

c) *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)?*

☐	☐	☒	☐
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Less than Significant Impact. The FEIR concluded that the reduction of water percolation into groundwater reservoirs would have a less than significant impact with mitigation measures implemented. The FEIR would mitigate for this impact by proposing the use of impervious clay and other materials in open channels to promote percolation. Although the Project is the same alignment as analyzed in the FEIR, this mitigation measure is not pertinent to the Project, an underground storm drain system. Project flows will ultimately outlet into the earthen Hemet and Salt Creek Channels. Flows will be able to infiltrate in these channels. The Project will not result in the withdrawal of use of groundwater.

Source: Project Design; FEIR Sections 3.2.2.2

d)	<i>Substantially alter the existing drainage pattern of the site or area, including through the alteration of a watercourse or wetland, in a manner which would result in substantial erosion or siltation on- or off-site?</i>	☐	☐	☒	☐
Less than Significant Impact. The Project is located within a residential area as analyzed by the FEIR and is currently within the same residential area. The Project will not alter the existing or proposed land use within the Project area. Drainage patterns within the Project area will not be altered in a manner that would result in substantial erosion or siltation on- or offsite. Source: Project Design; FEIR Section 3.2.2.1					
e)	<i>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?</i>	☐	☐	☒	☐
Less than Significant Impact. The FEIR depicted the Project within an existing residential area and the Project remains within that same area. The Project will collect and convey stormwater runoff through the Project area into an existing underground storm drain. Therefore, the Project will not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite. Source: Project Design; FEIR Section 3.2.2.1					
f)	<i>Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems?</i>	☐	☐	☐	☒
No Impact. The Project follows the same alignment as analyzed in the FEIR and will not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. Runoff from the Project area will not exceed the current condition or that analyzed in the FEIR. Source: Project Design FEIR Section 3.2.2.1					
g)	<i>Place housing within a 100-year flood hazard area as mapped on Federal Flood Hazard boundary of Flood Insurance Rate Map or other flood hazard delineation map?</i>	☐	☐	☐	☒
No Impact. The Project follows the same alignment as analyzed in the FEIR and is not located within a FEMA mapped Special Flood Hazard Area (SFHA); the Project is not a housing project. The Project will reduce the exposure of people and property to localized flooding. Source: Project Design, FEMA; FEIR Section 3.2; FEIR Section 3.6.1.2					
h)	<i>Place structures or fill within a 100-year flood hazard area, which would impede or redirect flood flows?</i>	☐	☐	☐	☒
No Impact. The Project follows the same alignment as analyzed in the FEIR. The Project will not impede or redirect flood flows; the Project reduces localized flooding. Source: Project Design; FEMA; FEIR Section 3.2; FEIR Section 3.6.1.2.					
i)	<i>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?</i>	☐	☐	☐	☒

No Impact. The Project, as analyzed in the FEIR and as designed, will not 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. Conversely, the Project will increase the level of flood protection for local residents.

Source: Project Design; FEIR Section 3.2

j) *Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?*

☐☐☐☒

No Impact. The Project area is not subject to inundation by a seiche or tsunami. The flood control facility will not increase the potential for mudflows.

Source: Project Design; FEIR Section 3.2

IX. LAND USE PLANNING

The FEIR determined that the MDP facilities would have significant impacts on Land Use, resulting in the loss of land used for agriculture. However, the Project was located within an existing residential area during the FEIR. The Project follows the same alignment as analyzed in the FEIR is still within that same residential area. The Project will not have an impact on land use planning.

Would the project:

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
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a) *Physically divide an established community?*

☐	☐	☐	☒
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No Impact. As analyzed in the FEIR, the Project area is located within a residential area and will not physically divide an established community.

Source: Project Design; FEIR Section 3.6

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?*

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No Impact. As analyzed in the FEIR, the Project area is located within a residential area and will not conflict with any land use designations or policies adopted for the purpose of avoiding or mitigating an environmental effect.

Source: Project Design; FEIR Section 3.6.1.2

X. MINERAL RESOURCES

The FEIR determined that the MDP facilities would not have a significant impact on mineral resources. Thus, the Project would not have a significant impact on mineral resources.

Would the project:

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
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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?

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No Impact. The FEIR determined that the MDP facilities would not have a significant impact on mineral resources. The Project area is not located within a mineral resources zone. In addition, the Project will not change any land uses within the Project area. Thus, the Project would not have an impact on mineral resources.

Source: Project Design; HGP; GIS; FEIR Section 3.1.1.4; FEIR Section 3.1.2

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?

☐	☐	☐	☒
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No Impact. The FEIR determined that the MDP facilities would not have a significant impact on mineral resources. The Project is not located within a delineated mineral resource recovery area. Thus, the Project would not have an impact on mineral resources.

Source: HGP; FEIR Section 3.1.1.4; FEIR Section 3.1.2.

XI. NOISE

The FEIR determined that noise would pose significant impacts and proposed mitigation measures to alleviate them. Due to new guidelines and/or standards, noise impacts were evaluated for the Project and vicinity. FEIR mitigation measure 3.10.3(e), with regards to construction noise, limits work hours to 7am-6pm; District standard procedure generally limits construction activity to between 7am-5pm.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) <i>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?</i>	☐	☐	☐	☒

No Impact. Riverside County Ordinance 847 Section 2 (b) states that capital improvement projects of a governmental agency are exempt from noise regulations. Therefore, the Project will not exceed standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Source: RCIP

b) <i>Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?</i>	☐	☐	☒	☐
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Less than Significant Impact. The Project would involve the temporary intermittent use of construction equipment for various construction and maintenance activities over the life of the Project and may result in temporary ground-borne vibration impacts in the Project area.

Caltrans' Transportation and Construction Induced Vibration Guidance Manual (Manual) provides methods to estimate construction induced ground-borne vibration, and provides criteria for acceptable levels of ground-borne vibration for human perception and potential damage to buildings. Tables 3 and 4 below list criteria for both human perception and building damage resulting from construction induced vibration.

Table 4: Guidance Vibration Annoyance Potential Criteria

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.90	0.10
Severe	2.00	0.40

Table 5: Guidance Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

Ground-borne vibration resulting from construction of the Project would be similar to a large bulldozer. Table 5 below lists the estimated minimum and maximum construction induced vibration impacts at various points in the Project area using methods described in the Manual. Construction induced ground-borne vibration varies from 0.04 inches/second to 0.09 inches/second within the Project area.

Table 6: Project Construction Induced Impacts (in/sec)

Estimated Construction Induced Vibration Impacts (Large Bulldozer)		Threshold Intermittent Construction Induced Vibration	
Minimum (at 50 feet)	Maximum (at 25 feet)	Human Perception "Distinctly Perceptible"	Older residential structure damage
0.04	0.09	0.04	0.30

The maximum estimated vibration is slightly above levels categorized as "Distinctly Perceptible" and near levels categorized as "Strongly Perceptible". Although the vibration levels are perceptible, the maximum estimated using the Manual is well below the threshold for potentially causing damage to older residential structures. Therefore, the impacts are less than significant.

Source: Project Design; Caltrans

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

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No Impact. The construction, operation or maintenance of a flood control facility will not result in a permanent substantial ambient noise increase. Potential noise impacts will be limited to the temporary impacts.

Source: Project Design

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

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Less than Significant Impact. The Project would involve the temporary intermittent use of construction equipment for various construction and maintenance activities over the life of the Project. Construction and maintenance equipment may result in temporary increases above existing noise levels. Construction equipment noise generally ranges from 70 to 95 dBA at 50 feet from the source. At about 500 feet from the source, intermittent levels from the loudest construction equipment would be about 75 dBA. Maintenance activities would be infrequent and involve less equipment than the initial construction of the Project. Residential areas are located adjacent to the Project site and could be temporarily affected by increased noise levels during construction. The long-term operation and maintenance of the Project would not cause a significant increase in noise levels. The increase in noise levels would not be substantial and would not be significant. Moreover, the District routinely implements standard operating procedures on all construction projects related to noise that further reduces the already-less-than-significant impacts. These standard operating procedures are:

- Heavy equipment that may impact adjacent residential structures shall be limited from 7:00 a.m. to 5:00 p.m. Monday through Friday, except under special circumstances approved by the District's General Manager-Chief Engineer.
- Each resident adjacent to the storm drain construction site shall be notified in writing three (3) days prior to operation of heavy construction equipment near the residences. The notice shall include the expected work schedule and the District's contact information. The District shall alert the construction contractor of any noise complaints and incorporate any feasible and practical

techniques which minimize the noise impacts on adjacent residences.

Source: Project Design, RCIP, HGP

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?*

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Less than Significant Impact. The Project is not located within an airport's land use plan; however, the Project is approximately two miles from the Hemet-Ryan Airport. Less than significant impacts are anticipated.

Source: Project Design

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?*

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No Impact. The Project is located approximately 12 miles east of the Perris Valley Airport. However, the Project does not include development that would expose people residing or working within the Project area to excessive noise levels. No impacts are anticipated.

Source: Project Design

XII. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
Would the project:				
a) <i>Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) resulting in substantial adverse physical impacts or conflicts with the adopted general plan, specific plan, or other applicable land use or regional plan?</i>	☐	☐	☐	☒
No Impact. Although the FEIR states that implementation of the Hemet Area MDP may have a significant impact on local population growth, the Project does not include the construction of any new homes or businesses and is not expected to result in any change to existing land use patterns or trigger substantial growth in the area. The Project area is within an established residential area as depicted in the FEIR. Thus, the Project would not induce substantial population growth. Source: Project Design; FEIR Section 3.8.2				
b) <i>Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?</i>	☐	☐	☐	☒
No Impact. See response XII.a). The Project will not displace any existing housing. Source: Project Design; FEIR Section 3.8.2				
c) <i>Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</i>	☐	☐	☐	☒
No Impact. See response XII.a). The Project will not displace people, therefore, will not necessitate the construction of replacement housing elsewhere. Source: Project Design; FEIR Section 3.8.2				

XIII. PUBLIC SERVICES

The FEIR determined that there would be no impacts to public services.

<i>a) Would the project 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 following public services:</i>	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
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i. Fire protection?

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No Impact. The Project would not require new fire protection services.

Source: FEIR Section 3.14.2

ii. Police protection?

☐☐☐☒

No Impact. The Project would not require new police services.

Source: FEIR Section 3.14.2

iii. Schools?

☐☐☒☐

Less than Significant Impact. The FEIR shows Whittier Elementary School adjacent to the Project. The Project follows the same alignment analyzed in the FEIR. Thus, the Project does not necessitate the addition of new schools in the area.

Source: GIS, FEIR Section 3.14.2

iv. Parks?

☐☐☐☒

No Impact. Additional demands on existing public parks would not occur. New or improved park facilities would not be necessary as a result of the Project.

Source: FEIR Section 3.7.2

v. Other public facilities?

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No Impact. Other public facilities will not be impacted by the Project.

Source: Project Design; FEIR Section 3.7.2; FEIR 3.14.2

XIV. RECREATION

The FEIR determined that impacts to parks and recreational facilities would be less than significant with mitigation measures implemented. The FEIR mitigated for these secondary effects by proposing wider roadways and/or new collector roads. However, since the Project area was situated within an existing residential area and follows the same alignment as in the FEIR, the Project is not expected to require new/wider roads to attract growth. The Project will have no impacts to recreation.

Would the project:

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
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a) *Would the project 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?*

☐	☐	☐	☒
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No Impact. The Project would not impact or increase the use of recreational facilities, neighborhood parks or regional parks.

Source: Project Design; FEIR Section 3.7.2

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

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No Impact. The Project does not require the construction or expansion of recreational facilities.

Source: Project Design; FEIR Section 3.7.2

XV. TRANSPORTATION AND TRAFFIC

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
Would the project:				
a) <i>Conflict with an adopted 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?</i>	☐	☒	☐	☐
Less than Significant Impact with Mitigation. The FEIR determined that transportation and traffic would have less than significant impacts with mitigation measures implemented. The FEIR mitigated these impacts by implementing a traffic control plan during construction. The Project follows the same alignment as analyzed in the FEIR. The Project incorporates a construction traffic control plan, thus implementing the FEIR's mitigation measure. The Project will have a less than significant impact with mitigation. Source: Project Design, FEIR Section 3.9.2				
b) <i>Conflict with an adopted congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the appropriate congestion management agency for designated roads or highways?</i>	☐	☒	☐	☐
Less than Significant Impact with Mitigation. The FEIR determined that transportation and traffic would have less than significant impacts with mitigation measures implemented. The Project follows the same alignment as analyzed in the FEIR. The Project incorporates a construction traffic control plan, thus implementing the FEIR's mitigation measure. The Project will have a less than significant impact with mitigation. Source: CMP, HGP, Project Design; FEIR Section 3.9.2				
c) <i>Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</i>	☐	☐	☐	☒
No Impact. The proposed project does not change the existing design of the roads. Thus, the Project will be compatible with existing road use and will not increase hazards due to a design feature or incompatible uses. Source: Project Design				
d) <i>Would the project result in inadequate emergency access?</i>	☐	☒	☐	☐
Less than Significant Impact with Mitigation. The FEIR determined that transportation and traffic would have less than significant impacts with mitigation measures implemented. The FEIR mitigated these impacts by implementing a traffic control plan during construction. The Project follows the same alignment as in the FEIR and the Project incorporates a construction traffic control plan, thus implementing the FEIR's mitigation measure. The Project will have a less than significant impact with mitigation to emergency access. Source: Project Design; FEIR Section 3.9.2				

e)	Would the project result in inadequate parking capacity?	☐	☐	☐	☒
No Impact. The FEIR did not analyze the MDP's impact on parking capacity. However, the Project site will not affect any existing parking facilities. Source: Project Design; FEIR Section 3.9					
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, pedestrian facilities, or other alternate transportation or otherwise decrease the performance or safety of such facilities?	☐	☒	☐	☐
Less than Significant Impact with Mitigation. The FEIR determined that transportation and traffic would have less than significant impacts with mitigation measures implemented. The FEIR mitigated these impacts by implementing 1) a traffic control plan during construction; or 2) proposing wider roadways and/or new collector roads. However, since the Project area was situated within an existing residential area and follows the same alignment as in the FEIR, the Project is not expected to require new/wider roads to attract growth. Additionally, the Project design incorporates a construction traffic control plan, thus implementing the FEIR's mitigation measure. The Project will have a less than significant impact with mitigation. Source: Project Design; FEIR Section 3.9.2					

XVI. UTILITIES AND SERVICE SYSTEMS

The FEIR determined that impacts to existing underground utilities would be less than significant with mitigation. The FEIR mitigated for these impacts by proposing close coordination with utility companies/municipalities to minimize conflict and utilizing the "pot-hole" method for positive utility verification in proximity of the proposed stormdrain facility. The Project follows the same alignment as analyzed in the FEIR and the Project implemented the FEIR mitigation measure during the design phase and does not expect further Project impacts to utilities/service systems. Impacts by the Project on existing utilities and service systems will be less than significant with mitigation.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) <i>Impact the following facilities requiring or resulting in the construction of new facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</i>				
<i>Electricity</i>	☐	☐	☐	☒
No Impact. The construction of the Project would not require additional electrical facilities. Source: Project Design; FEIR Section 3.13.2.5				
<i>Natural Gas</i>	☐	☐	☐	☒
No Impact. The construction of the Project would not require additional natural gas facilities. Source: Project Design; FEIR Section 3.13.2.4				
<i>Communication System</i>	☐	☐	☐	☒
No Impact. The construction of the Project would not require additional communication systems facilities. Source: Project Design; FEIR Section 3.13.2.6				
<i>Public facilities, including roads and bridges</i>	☐	☐	☐	☒
No Impact. The construction of the Project would not require additional public facilities. Source: Project Design; FEIR Section 3.9.2; FEIR Section 3.14				
b) <i>Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</i>	☐	☐	☐	☒
No Impact. The Project is an element of a master-planned storm drain facility and street improvements analyzed by the FEIR to alleviate flooding. Additional drainage facilities will not be required as a result of the Project. Source: Project Design; FEIR Section 2.0; FEIR Section 3.2				
c) <i>Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?</i>	☐	☐	☐	☒

No Impact. The Project is an element of a master-planned storm drain facility and street improvements analyzed by the FEIR to alleviate flooding. The Project will not require the long-term use of water supplies. Thus, the Project will not have an impact on long-term water used.

Source: Project Design; FEIR Section 3.13.2.3

d) *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?*

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No Impact. The Project is an element of a master-planned storm drain facility and street improvements analyzed by the FEIR to alleviate flooding. The Project would not generate wastewater or require wastewater treatment services. No new wastewater facilities are required as a result of the Project.

Source: Project Design; FEIR Section 3.13.2.1

e) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

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Less than Significant Impact. The Project is an element of a master-planned storm drain facility and street improvements analyzed by the FEIR to alleviate flooding. Although the Project may generate a limited amount of solid waste during construction, the limited amount of solid waste generated by the Project would not be substantial or interfere with the capacity of nearby existing solid waste disposal facilities.

Source: Project Design; FEIR Section 3.13.2.2

f) *Comply with federal, state, and local statutes and regulations related to solid waste?*

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No Impact. Any waste disposal that is required by the Project will be done in compliance with the appropriate statutes and regulations.

Source: Project Design

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) <i>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, 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?</i>	☐	☐	☒	☐
Less than Significant Impact. As analyzed in the FEIR, the Project's potential impacts to the environment, wildlife species, plant or animal community and cultural resources will not occur, will be less than significant or will be mitigated below a level of significance.				
b) <i>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 projects, and the effects of probable future projects.)</i>	☐	☐	☒	☐
Less than Significant Impact. The FEIR analyzed impacts by the MDP, of which the Project is an element. Due to the Project's relatively small footprint, any potential impacts of the Project will not be cumulatively considerable.				
c) <i>Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</i>	☐	☐	☒	☐
Less than Significant Impact. As discussed in the FEIR and in this document, the construction of the Project will temporarily increase noise levels to those persons who reside near the Project area. With the incorporation of the standard operating procedures described in Section XI, potential noise impacts will be less than significant. The Project will have no other potential adverse impacts to human beings.				

REFERENCES

<u>Cited As:</u>	<u>Source:</u>
AQMP	South Coast Air Quality Management District [AQMD]. <u>Air Quality Management Plan 2007</u> . December 2012. Available at: http://www.aqmd.gov/aqmp/aqmpintro.htm
AirPlan	Riverside County Economic Development Agency [EDA]. <u>Hemet-Ryan Airport Master Plan</u> . September 2011. Available at: http://www.rchmtra.com
CalEEMod	AQMD, et al. <u>California Emission Estimator Model™</u> : Version 2011.1.1. Available at: http://www.caleemod.com
Caltrans	California Department of Transportation, Noise, Vibration and Hazardous Waste Management Office. <u>Transportation- and Construction-Induced Vibration Guidance Manual</u> . Jones & Stokes: June 2004. Available at: http://www.dot.ca.gov/hq/env/noise/pub/vibrationmanFINAL.pdf
CARB	California Air Resources Board. "Area Designation Maps / State and National." 2012. Available at: http://www.arb.ca.gov/desig/adm/adm.htm
CMP	Riverside County Transportation Commission. <u>2011 Riverside County Congestion Management Program</u> . December 14, 2011.
Conservation	California Department of Conservation Farmland Mapping and Monitoring Program. "Riverside County Important Farmland 2010." Sheet 1 of 3. Available at: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/riv10_west.pdf
DTSC	California Department of Toxic Substances Control. <u>Hazardous Waste and Substance Site List (Cortese List)</u> . Website accessed April 22 2013. Available at: http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm
EIC	Eastern Information Center. "Cultural Resources Records Search for the Hemet MDP Line C, Stage 4 Project." March 25, 2013.
FEIR	Alderman, Swift & Lewis Consulting Engineers. <u>Final Environmental Impact Report: Hemet Area Drainage & Salt Creek Channel Improvements</u> . Certified June 27, 1978, Riverside County Board of Supervisors.
FEMA	Federal Emergency Management Agency National Flood Insurance Program. <u>Flood Insurance Rate Map No. 0605C2105G</u> . (Panel 2105G of 3805). August 28, 2008. Available at: http://map1.msc.fema.gov/idms/IntraView.cgi?KEY=92298936&IFIT=1
GeoTech	Inland Foundation Engineering, Inc. <u>Geotechnical Investigation Hemet MDP Line C, Stage 4 Storm Drain, Whittier Avenue, Hemet, California</u> . October 31, 2011.

GIS	County of Riverside. "Geographic Information System Database." Available at: http://www3.tlma.co.riverside.ca.us/pa/rclis/index.html <i>Note: GIS research was conducted on RCLIS, prior to its replacement with "Map My County", Riverside County's new Arc-GIS web-based application.</i>
HGP	City of Hemet. <u>City of Hemet General Plan 2030</u> . Resolution No. 4476, January 24, 2012. Available at: http://www.cityofhemet.org/index.aspx?NID=534
MSHCP	Riverside County Integrated Project. <u>Western Riverside County Multiple Species Habitat Conservation Plan</u> . Adopted June 17, 2003. Available at: http://www.rctlma.org/mshcp/index.html
NAHC	Native American Heritage Commission. "Request for Sacred Lands File Search and Native American Contacts list for the Proposed 'Hemet MDP Line C, Stage 4 Flood Control Project' located in the City of Hemet, Riverside County, California." February 26, 2013.
NPDES	Riverside County Flood Control & Water Conservation District. "Compliance Documents." <u>NPDES/Municipal Stormwater Management Program</u> . Available at: http://rcflood.org/NPDES/
RCIP	Riverside County Integrated Project. <u>County of Riverside General Plan</u> . Adopted October 7, 2003, updated August 2009. Available at: http://www.rctlma.org/genplan/general_plan_2008/general_plan_2008.aspx
SCAQMD	AQMD. <u>California Environmental Quality Act Air Quality Handbook</u> . April 1993, updated November 1993. Available at: http://www.aqmd.gov/ceqa/hdbk.html
SWRCB	State Water Resources Control Board. Geotracker. Available at: http://geotracker.waterboards.ca.gov

Appendix A

Air Quality CalEEMod

Hemet MDP Line C Stage 4
Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
User Defined Commercial	0	User Defined Unit
Other Asphalt Surfaces	3.6	Acre

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Utility Company
Climate Zone	10	Precipitation Freq (Days)	28	

1.3 User Entered Comments

Project Characteristics -

Land Use - Landuse = Parking -- SD all in street. Estimated paving area = 3.6ac (EIP)

Construction Phase - Construction Phase - SD = 75 mian line + 13 connector + 13 CB = 101 days

Paving = 12 base pave trench + 12 final pave = 24 days

Off-road Equipment - Other construction equipment = water truck = 1

Off-road Equipment - Crushing/Proc. Equipment = 1

Surfacing Equipment = 1

Grading - Grading: Import = 0
 Export = 12,200 CY
 Total Acres Disturbed = 13.7

Trips and VMT - Trip length hauling = one way export = 2.25 miles (Round trip from EIP = 4.5 mi)

Consumer Products - Consumer products emissions are not applicable to District projects.

Construction Off-road Equipment Mitigation - Water exposed areas 3x/day = 61% reduction

Street sweeping (local roads, bi-weekly) + Covered trucks (1ft freeboard) = 92% effective PM10 paved road reduction.

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	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
Year	tons/yr										MT/yr					
2014	0.43	3.06	2.22	0.00	0.23	0.19	0.42	0.00	0.19	0.19						394.19
Total	0.43	3.06	2.22	0.00	0.23	0.19	0.42	0.00	0.19	0.19						394.19

2.1 Overall Construction

Mitigated Construction

	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
Year	tons/yr										MT/yr					
2014	0.43	3.06	2.22	0.00	0.02	0.19	0.21	0.00	0.19	0.19						394.19
Total	0.43	3.06	2.22	0.00	0.02	0.19	0.21	0.00	0.19	0.19						394.19

2.2 Overall Operational

Unmitigated Operational

	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	tons/yr										MT/yr					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Waste						0.00	0.00		0.00	0.00						0.00
Water						0.00	0.00		0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00

2.2 Overall Operational

Mitigated Operational

	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	tons/yr										MT/yr					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Waste						0.00	0.00		0.00	0.00						0.00
Water						0.00	0.00		0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Storm Drain Installation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00						0.00
Off-Road	0.33	2.46	1.68	0.00		0.15	0.15		0.15	0.15						306.68
Total	0.33	2.46	1.68	0.00	0.01	0.15	0.16	0.00	0.15	0.15						306.68

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.01	0.08	0.06	0.00	0.18	0.00	0.19	0.00	0.00	0.00						8.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.01	0.01	0.15	0.00	0.03	0.00	0.03	0.00	0.00	0.00						24.02
Total	0.02	0.09	0.21	0.00	0.21	0.00	0.22	0.00	0.00	0.00						32.61

3.2 Storm Drain Installation - 2014

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	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	0.33	2.46	1.68	0.00		0.15	0.15		0.15	0.15						306.68
Total	0.33	2.46	1.68	0.00	0.00	0.15	0.15	0.00	0.15	0.15						306.68

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	tons/yr										MT/yr					
Hauling	0.01	0.08	0.06	0.00	0.01	0.00	0.02	0.00	0.00	0.00						8.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.01	0.01	0.15	0.00	0.00	0.00	0.01	0.00	0.00	0.00						24.02
Total	0.02	0.09	0.21	0.00	0.01	0.00	0.03	0.00	0.00	0.00						32.61

3.3 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.07	0.50	0.31	0.00		0.03	0.03		0.03	0.03						51.99
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	0.07	0.50	0.31	0.00		0.03	0.03		0.03	0.03						51.99

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00						2.91
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00						2.91

3.3 Paving - 2014

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	tons/yr										MT/yr					
Off-Road	0.07	0.50	0.31	0.00		0.03	0.03		0.03	0.03						51.99
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	0.07	0.50	0.31	0.00		0.03	0.03		0.03	0.03						51.99

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	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00						2.91
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00						2.91

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	tons/yr										MT/yr					
Mitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
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
Other Asphalt Surfaces	0.00	0.00	0.00		
User Defined Commercial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00
User Defined Commercial	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	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	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00						0.00
Electricity Unmitigated						0.00	0.00		0.00	0.00						0.00
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
User Defined Commercial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00

Mitigated

	NaturalGas Use	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
Land Use	kBTU	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
User Defined Commercial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00

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			
Other Asphalt Surfaces	0								0.00
User Defined Commercial	0								0.00
Total									0.00

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Other Asphalt Surfaces	0								0.00
User Defined Commercial	0								0.00
Total									0.00

6.0 Area Detail

6.1 Mitigation Measures Area

	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	tons/yr										MT/yr					
Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00

6.2 Area by SubCategory

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated								0.00
Unmitigated								0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Other Asphalt Surfaces	0 / 0								0.00
User Defined Commercial	0 / 0								0.00
Total									0.00

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Other Asphalt Surfaces	0 / 0								0.00
User Defined Commercial	0 / 0								0.00
Total									0.00

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated								0.00
Unmitigated								0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA

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			
Other Asphalt Surfaces	0								0.00
User Defined Commercial	0								0.00
Total									0.00

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Other Asphalt Surfaces	0								0.00
User Defined Commercial	0								0.00
Total									0.00

9.0 Vegetation

Hemet MDP Line C Stage 4
Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
User Defined Commercial	0	User Defined Unit
Other Asphalt Surfaces	3.6	Acre

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Utility Company
Climate Zone	10	Precipitation Freq (Days)	28	

1.3 User Entered Comments

Project Characteristics -

Land Use - Landuse = Parking -- SD all in street. Estimated paving area = 3.6ac (EIP)

Construction Phase - Construction Phase - SD = 75 mian line + 13 connector + 13 CB = 101 days

Paving = 12 base pave trench + 12 final pave = 24 days

Off-road Equipment - Other construction equipment = water truck = 1

Off-road Equipment - Crushing/Proc. Equipment = 1

Surfacing Equipment = 1

Grading - Grading: Import = 0
 Export = 12,200 CY
 Total Acres Disturbed = 13.7

Trips and VMT - Trip length hauling = one way export = 2.25 miles (Round trip from EIP = 4.5 mi)

Consumer Products - Consumer products emissions are not applicable to District projects.

Construction Off-road Equipment Mitigation - Water exposed areas 3x/day = 61% reduction

Street sweeping (local roads, bi-weekly) + Covered trucks (1ft freeboard) = 92% effective PM10 paved road reduction.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2014	13.35	92.46	64.89	0.13	5.24	5.95	11.19	0.05	5.95	6.00						12,519.84
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	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
Year	lb/day										lb/day					
2014	13.35	92.46	64.89	0.13	0.51	5.95	6.46	0.05	5.95	6.00						12,519.84
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.2 Overall Operational

Unmitigated Operational

	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					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00

2.2 Overall Operational

Mitigated Operational

	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					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Storm Drain Installation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.16	0.00	0.16	0.00	0.00	0.00						0.00
Off-Road	6.57	48.64	33.18	0.07		2.98	2.98		2.98	2.98						6,695.93
Total	6.57	48.64	33.18	0.07	0.16	2.98	3.14	0.00	2.98	2.98						6,695.93

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.16	1.70	0.99	0.00	4.00	0.04	4.03	0.00	0.04	0.04						190.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.25	0.28	3.36	0.01	0.72	0.03	0.74	0.03	0.03	0.05						567.55
Total	0.41	1.98	4.35	0.01	4.72	0.07	4.77	0.03	0.07	0.09						758.15

3.2 Storm Drain Installation - 2014

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					0.06	0.00	0.06	0.00	0.00	0.00						0.00
Off-Road	6.57	48.64	33.18	0.07		2.98	2.98		2.98	2.98						6,695.93
Total	6.57	48.64	33.18	0.07	0.06	2.98	3.04	0.00	2.98	2.98						6,695.93

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	0.16	1.70	0.99	0.00	0.32	0.04	0.36	0.00	0.04	0.04						190.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.25	0.28	3.36	0.01	0.08	0.03	0.11	0.03	0.03	0.05						567.55
Total	0.41	1.98	4.35	0.01	0.40	0.07	0.47	0.03	0.07	0.09						758.15

3.3 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.84	41.70	25.65	0.05		2.89	2.89		2.89	2.89						4,776.82
Paving	0.39					0.00	0.00		0.00	0.00						0.00
Total	6.23	41.70	25.65	0.05		2.89	2.89		2.89	2.89						4,776.82

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.13	0.14	1.71	0.00	0.37	0.01	0.38	0.01	0.01	0.03						288.93
Total	0.13	0.14	1.71	0.00	0.37	0.01	0.38	0.01	0.01	0.03						288.93

3.3 Paving - 2014

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	5.84	41.70	25.65	0.05		2.89	2.89		2.89	2.89						4,776.82
Paving	0.39					0.00	0.00		0.00	0.00						0.00
Total	6.23	41.70	25.65	0.05		2.89	2.89		2.89	2.89						4,776.82

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.13	0.14	1.71	0.00	0.04	0.01	0.05	0.01	0.01	0.03						288.93
Total	0.13	0.14	1.71	0.00	0.04	0.01	0.05	0.01	0.01	0.03						288.93

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
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
Other Asphalt Surfaces	0.00	0.00	0.00		
User Defined Commercial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00
User Defined Commercial	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	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					
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU	lb/day										lb/day					
Other Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
User Defined Commercial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU	lb/day										lb/day					
Other Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
User Defined Commercial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00

6.0 Area Detail

6.1 Mitigation Measures Area

	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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00

Mitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Hemet MDP Line C Stage 4
Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
User Defined Commercial	0	User Defined Unit
Other Asphalt Surfaces	3.6	Acre

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Utility Company
Climate Zone	10	Precipitation Freq (Days)	28	

1.3 User Entered Comments

Project Characteristics -

Land Use - Landuse = Parking -- SD all in street. Estimated paving area = 3.6ac (EIP)

Construction Phase - Construction Phase - SD = 75 mian line + 13 connector + 13 CB = 101 days

Paving = 12 base pave trench + 12 final pave = 24 days

Off-road Equipment - Other construction equipment = water truck = 1

Off-road Equipment - Crushing/Proc. Equipment = 1

Surfacing Equipment = 1

Grading - Grading: Import = 0
 Export = 12,200 CY
 Total Acres Disturbed = 13.7

Trips and VMT - Trip length hauling = one way export = 2.25 miles (Round trip from EIP = 4.5 mi)

Consumer Products - Consumer products emissions are not applicable to District projects.

Construction Off-road Equipment Mitigation - Water exposed areas 3x/day = 61% reduction

Street sweeping (local roads, bi-weekly) + Covered trucks (1ft freeboard) = 92% effective PM10 paved road reduction.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2014	13.35	92.48	64.56	0.12	5.24	5.96	11.20	0.05	5.96	6.00						12,418.19
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	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
Year	lb/day										lb/day					
2014	13.35	92.48	64.56	0.12	0.51	5.96	6.47	0.05	5.96	6.00						12,418.19
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.2 Overall Operational

Unmitigated Operational

	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					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00

2.2 Overall Operational

Mitigated Operational

	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					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Storm Drain Installation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.16	0.00	0.16	0.00	0.00	0.00						0.00
Off-Road	6.57	48.64	33.18	0.07		2.98	2.98		2.98	2.98						6,695.93
Total	6.57	48.64	33.18	0.07	0.16	2.98	3.14	0.00	2.98	2.98						6,695.93

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.18	1.66	1.30	0.00	4.00	0.04	4.04	0.00	0.04	0.05						183.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.25	0.31	2.93	0.01	0.72	0.03	0.74	0.03	0.03	0.05						505.00
Total	0.43	1.97	4.23	0.01	4.72	0.07	4.78	0.03	0.07	0.10						688.34

3.2 Storm Drain Installation - 2014

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					0.06	0.00	0.06	0.00	0.00	0.00						0.00
Off-Road	6.57	48.64	33.18	0.07		2.98	2.98		2.98	2.98						6,695.93
Total	6.57	48.64	33.18	0.07	0.06	2.98	3.04	0.00	2.98	2.98						6,695.93

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	0.18	1.66	1.30	0.00	0.32	0.04	0.37	0.00	0.04	0.05						183.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.25	0.31	2.93	0.01	0.08	0.03	0.11	0.03	0.03	0.05						505.00
Total	0.43	1.97	4.23	0.01	0.40	0.07	0.48	0.03	0.07	0.10						688.34

3.3 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.84	41.70	25.65	0.05		2.89	2.89		2.89	2.89						4,776.82
Paving	0.39					0.00	0.00		0.00	0.00						0.00
Total	6.23	41.70	25.65	0.05		2.89	2.89		2.89	2.89						4,776.82

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.12	0.16	1.49	0.00	0.37	0.01	0.38	0.01	0.01	0.03						257.09
Total	0.12	0.16	1.49	0.00	0.37	0.01	0.38	0.01	0.01	0.03						257.09

3.3 Paving - 2014

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	5.84	41.70	25.65	0.05		2.89	2.89		2.89	2.89						4,776.82
Paving	0.39					0.00	0.00		0.00	0.00						0.00
Total	6.23	41.70	25.65	0.05		2.89	2.89		2.89	2.89						4,776.82

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Worker	0.12	0.16	1.49	0.00	0.04	0.01	0.05	0.01	0.01	0.03						257.09
Total	0.12	0.16	1.49	0.00	0.04	0.01	0.05	0.01	0.01	0.03						257.09

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.00
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
Other Asphalt Surfaces	0.00	0.00	0.00		
User Defined Commercial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00
User Defined Commercial	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	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					
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU	lb/day										lb/day					
Other Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
User Defined Commercial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU	lb/day										lb/day					
Other Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
User Defined Commercial	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00

6.0 Area Detail

6.1 Mitigation Measures Area

	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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00

Mitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00
Total	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						0.00

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Appendix B

Air Quality

Localized Significance Thresholds

**Hemet MDP Line C, Stage 4 Storm Drain
Storm Drain Installation**

Example	Construction Activity
Two Acre Site	Excavatorpm 37,200 Square Feet ^a
Site Preparation Schedule -	1 days^a

Equipment Type^{a,b}	No. of Equipment	hr/day	Crew Size
Rubber Tired Dozers	0	8.0	5
Graders	0	8.0	
Tractors/Loaders/Backhoes	2	8.0	

Construction Equipment Emission Factors			
	CO	NOx	PM10
Equipment Type^c	lb/hr	lb/hr	lb/hr
Rubber Tired Dozers	1.502	3.125	0.135
Graders	0.643	1.524	0.080
Tractors/Loaders/Backhoes	0.399	0.723	0.056

Fugitive Dust Grading Parameters	
Vehicle Speed (mph)^d	Vehicle Miles Traveled^e
3	4.50

Fugitive Dust Stockpiling Parameters				
Silt Content^f	Precipitation Days^g	Mean Wind Speed Percent^h	TSP Fraction	Area (acres)ⁱ
6.9	10	100	0.5	0.06

Fugitive Dust Material Handling				
Aerodynamic Particle Size Multiplier^j	Mean Wind Speed^k	Moisture Content^f	Dirt Handled^a	Dirt Handled^l
	mph		cy	lb/day
0.35	10	7.9	444	1,110,000

Install-1

**Hemet MDP Line C, Stage 4 Storm Drain
Storm Drain Installation**

Construction Vehicle (Mobile Source) Emission Factors

	CO lb/mile	NOx lb/mile	PM10 lb/mile
Heavy-Duty Truck ^m	0.012822	0.041846	0.001996

Construction Worker Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	One-Way Trip Length (miles)
Haul Truck ⁿ	4	0.1
Water Truck ^o	3	1.2

Incremental Increase in Onsite Combustion Emissions from Construction Equipment

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Construction Emissions (lb/day)

Equipment Type	CO lb/day	NOx lb/day	PM10 lb/day
Rubber Tired Dozers	0.00	0.00	0.00
Graders	0.00	0.00	0.00
Tractors/Loaders/Backhoes	6.39	11.56	0.89
Total	6.4	11.6	0.89

Incremental Increase in Fugitive Dust Emissions from Construction Operation

Equations:

Grading^p: PM10 Emissions (lb/day) = 0.60 x 0.051 x mean vehicle speed^{2.0} x VMT x (1 - control efficiency)

Storage Piles^q: PM10 Emissions (lb/day) = 1.7 x (silt content/1.5) x ((365-precipitation days)/235) x wind speed percent/15 x TSP fraction x Area x (1 - control efficiency)

Material Handling^r PM10 Emissions (lb/day) = (0.0032 x aerodynamic particle size multiplier x (wind speed (mph)/5)^{1.3}/(moisture content/2)^{1.4} x dirt handled (lb/day)/2,000 (lb/ton) (1 - control efficiency)

Description	Control Efficiency %	PM10^s lb/day
Earthmoving	61	0.48
Storage Piles	61	0.92
Material Handling	61	0.09
Total		1.49

**Hemet MDP Line C, Stage 4 Storm Drain
Storm Drain Installation**

Incremental Increase in Onsite Combustion Emissions from Onroad Mobile Vehicle

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x 2 x Trip length (mile) = Mobile Emissions (lb/day)

	CO	NOx	PM10
Vehicle	lb/day	lb/day	lb/day
Haul Truck	0.01	0.03	0.00
Water Truck	0.09	0.3	0.014
Total	0.10	0.33	0.02

Total Incremental Localized Emissions from Construction Activities:

	CO	NOx	PM10
Sources	lb/day	lb/day	lb/day
On-site Emissions	6.5	11.9	2.4
Significance Threshold^f	1100	234	7
Exceed Significance?	NO	NO	NO

Combustion and Fugitive Summary	PM2.5 Fraction^h	PM10	PM2.5
		lb/day	lb/day
Combustion (Offroad)	0.92	0.9	0.8
Combustion (Onroad)	0.96	0.02	0.02
Fugitive	0.21	1	0
Total		2.4	1.1
Significance Threshold^f			4
Exceed Significance?			NO

Notes:

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a) SCAQMD, estimated from survey data, Sept 2004

b) Equipment name must match CARB Off-Road Model (see Off-Road Model EF worksheet) equipment name for sheet to look up EFs automatically.

c) SCAB values provided by the ARB, Oct 2006. Assumed equipment is diesel fueled.

d) Caterpillar Performance Handbook, Edition 33, October 2003 Operating Speeds, p 2-3.

e) Assumed 13 foot wide blade with 2 foot overlap (11 foot wide). Vehicle miles traveled (VMT) = (37,200 sq ft/11 foot x mile/5,280 ft)/1 days = 4.5miles

f) USEPA, AP-42, Jan 1995, Table 11.9-3 Typical Values for Correction Factors Applicable to the Predictive Emission Factor Equations

g) Table A9-9-E2, SCAQMD CEQA Air Quality Handbook, 1993

h) Mean wind speed percent - percent of time mean wind speed exceeds 12 mph. At least one meteorological site recorded wind speeds greater than 12 mph over a 24-hour period in 1981.

i) Assumed storage piles are 0.06 acres in size

j) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 µm

k) Mean wind speed - maximum of daily average wind speeds reported in 1981 meteorological data.

l) Assuming 444 cubic yards of dirt handled [(444 cyd x 2,500 lb/cyd)/1 days = 1,110,000 lb/day]

**Hemet MDP Line C, Stage 4 Storm Drain
Storm Drain Installation**

- m) 2009 fleet year. <http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html>.
- n) Assumed 30 cubic yd truck capacity for 444 cyd of dirt [(444 cyd x truck/30 cyd)/1 days = 4 one-way truck trips/day]. Multiple trucks may be used.
- o) Assumed six foot wide water truck traverses over 37,200 square feet of disturbed area
- p) USEPA, AP-42, Jan 1995, Table 11.9-1, Equation for Site Grading $\leq 10 \mu\text{m}$
- q) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, Sept 1992, EPA-450/2-92-004, Equation 2-12
- r) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, Equation 1
- s) Includes watering at least three times a day per Rule 403 (61% control efficiency).
- t) From App. C of the Methodology Paper for applicable LSTs.
- u) ARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive and diesel vehicle exhaust category for combustion.

**Hemet MDP Line C, Stage 4 Storm Drain
Paving**

Example	Construction Activity
One Acre Site	Architectural Coating and Asphalt Paving of Parking Lot
Construction Schedule	1 days^a

Equipment Type^{a,b}	No. of Equipment	hr/day	Crew Size
Pavers	1	8.0	8
Paving Equipment	1	8.0	
Rollers	1	8.0	
Tractors/Loaders/Backhoes	0	8.0	

Construction Equipment Combustion Emission Factors			
Equipment Type^c	CO lb/hr	NOx lb/hr	PM10 lb/hr
Pavers	0.576	1.032	0.074
Paving Equipment	0.454	0.940	0.066
Rollers	0.427	0.817	0.057
Tractors/Loaders/Backhoes	0.399	0.723	0.056

Construction Vehicle (Mobile Source) Emission Factors			
	CO lb/mile	NOx lb/mile	PM10 lb/mile
Heavy-Duty Truck ^d	0.012822365	0.041845907	0.001996

On-Site Number of Trips and Trip Length		
Vehicle	No. of One-Way Trips/Day	One-Way Trip Length (miles)
Delivery Truck ^e	3	0.1
Water Truck ^f	3	1.3

**Hemet MDP Line C, Stage 4 Storm Drain
Paving**

Incremental Increase in Onsite Idling Emissions from Onroad Mobile Vehicles

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Construction Emissions (lb/day)

Equipment Type	CO lb/day	NOx lb/day	PM10 lb/day
Pavers	4.60	8.26	0.59
Paving Equipment	3.42	6.53	0.46
Rollers	3.63	7.52	0.52
Tractors/Loaders/Backhoes	0.00	0.00	0.00
Total	11.66	22.31	1.57

Incremental Increase in Offsite Combustion Emissions from Construction Vehicles

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x 2 x Trip length (mile) = Mobile Emissions (lb/day)

Vehicle	CO lb/day	NOx lb/day	PM10 lb/day
Flatbed Truck	0.008	0.025	0.0012
Water Truck	0.100	0.326	0.0156
Total	0.108	0.352	0.0168

Total Incremental Combustion Emissions from Construction Activities

Sources	CO lb/day	NOx lb/day	PM10 lb/day
On-Site Emissions	11.8	22.7	1.6
Significance Threshold^g	151	103	4
Exceed Significance?	NO	NO	NO

Combustion and Fugitive Summary	PM2.5 Fraction^h	PM10 lb/day	PM2.5 lb/day
Combustion (Offroad)	0.92	1.6	1.4
Combustion (Onroad)	0.96	0.017	0.016
Fugitive	0.21	0	0
Total		1.6	1.5
Significance Threshold^g			3
Exceed Significance?			NO

**Hemet MDP Line C, Stage 4 Storm Drain
Paving**

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- a) SCAQMD, estimated from survey data, Sept 2004
- b) Equipment name must match CARB Off-Road Model (see Off-Road Model EF worksheet) equipment name for sheet to look up EFs automatically.
- c) SCAB values provided by the ARB, Oct 2006. Assumed equipment is diesel fueled.
- d) 2009 fleet year. <http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html>.
- e) Assumed haul truck travels 0.1 miles through facility
- f) Assumed six foot wide water truck traverses over 40,000 square feet of disturbed area
- g) From App. C of the Methodology Paper for applicable LSTs.
- h) ARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive and diesel vehicle exhaust category for combustion.