

The local air quality emissions from construction were analyzed through utilizing the methodology described in *Localized Significance Threshold Methodology* (LST Methodology), prepared by SCAQMD, revised October 2009. The LST Methodology found the primary criteria pollutant emissions of concern are NOx, CO, PM10, and PM2.5. In order to determine if any of these pollutants require a detailed analysis of the local air quality impacts, each phase of construction was screened using the SCAQMD's Mass Rate LST Look-up Tables. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily onsite emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. Table E shows the onsite emissions from the CalEEMod model for the different construction phases and the calculated emissions thresholds that have been detailed above.

Table E – Construction-Related Local Criteria Pollutant Emissions

Phase	Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Excavation and Grading of Channel ¹	38.22	15.92	1.93	1.43
Channel Construction	16.24	10.01	0.86	0.81
Catch Basin Construction	24.79	13.59	1.21	1.14
Final Grading and Road Construction ¹	20.85	10.91	1.19	0.92
Paving	6.93	4.83	0.41	0.38
SCAQMD Thresholds for 25 meters (82 feet) ²	170	1,007	6	5
Exceeds Threshold?	No	No	No	No

Notes:

¹ Grading based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.

² The nearest sensitive receptors are single-family homes located as near as 10 feet (3 meters) from the project site. According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25 meter thresholds.

Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for two acres in Air Monitoring Area 22, Corona/Norco Area.

The data provided in Table E shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds for any phase of construction. In addition, construction emissions would be short-term, limited only to the period when construction activity is taking place. As such, construction related local air concentrations would be less than significant for the proposed project. Additionally, construction activities would be required to follow SCAQMD regulations that limit fugitive dust emissions, including SCAQMD Rules 401 and 403. These rules require that contractors working on the proposed project to implement measures to reduce fugitive dust emissions that include the following:

- Limit speed of vehicles on dirt areas of the project site to 15 miles per hour or less.
- Apply water and/or other dust suppressants as necessary to prevent or alleviate erosion by the forces of wind.
- Limit all stockpiles that can be blown by wind to 8 feet in height or apply a soil stabilizer.
- Cover all trucks hauling soil or other loose material.
- Sweep daily all paved access roads and any trackout onto public road with water sweepers.
- When winds exceed 25 mph, cease all grading operations other than dust suppression activities.

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Operational Emissions

The on-going operation of the proposed project would not result in a long-term increase in air quality emissions. The only emissions associated with the long-term operations are from annual routine maintenance trips to the project site by District personnel in a small truck. No change in the routine maintenance schedule would occur from implementation of the proposed project. Therefore, no long-term operational emissions are anticipated and there would be no impact.

Level of Significance

Less than significant impact.

Impact 3: Cumulative Net Increase in Non-Attainment Pollution

The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Cumulative projects include local development as well as general growth within the project area. However, as with most development, the greatest source of emissions is from mobile sources, which travel throughout the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered would cover an even larger area. Accordingly, the cumulative analysis for the project's air quality must be generic by nature. The project area is out of attainment for ozone and PM10 and PM2.5 particulate matter. In accordance with CEQA Guidelines Section 15130(b), this analysis of cumulative impacts utilizes a project approach that relies on a summary of projections of future development and impacts contained in adopted plans. Therefore, if the proposed project is consistent with the following items, the project would result in a less than significant cumulative net increase in non-attainment criteria pollutants.

- Consistency with the SCAQMD project specific thresholds for construction and operations; and
- Project consistency with existing air quality plans.

Consistency with Project Specific Thresholds

Construction-Related Impacts

The project site is located in the South Coast Air Basin, which is currently designated by the EPA for federal standards as a non-attainment area for ozone and PM2.5 and by CARB for the state standards as a non-attainment area for ozone, PM10, and PM2.5. The regional ozone, PM10, and PM2.5 emissions associated with construction of the proposed project have been calculated above in Table D. The above analysis found that development of the proposed project would result in less than significant regional emissions of VOC and NOx (ozone precursors), PM10, and PM2.5 during construction of the proposed project. Therefore, a less than significant cumulative impact would occur from construction of the proposed project.

Operational-Related Impacts

The greatest cumulative operational impact on the air quality to the Air Basin will be the incremental addition of pollutants mainly from increased traffic from residential, commercial, and industrial development. In accordance with SCAQMD methodology, projects that do not exceed SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative

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impact. The above analysis found that continued use of the proposed channel would result in no new VOC and NOx (ozone precursors), PM10, and PM2.5 emissions. With respect to long-term emissions, this project would create no cumulative impact.

Consistency with Air Quality Plans

As detailed above, the project site is currently designated as Residential Agricultural in the General Plan and is zoned Agricultural – Low Density 20,000 sq. ft. (A-1-20). The proposed project is consistent with the current land use designation and zoning and would not require a General Plan Amendment or zone change. Therefore, the proposed project would not result in an inconsistency with the current land use designations with respect to the regional forecasts utilized by the AQMP.

Level of Significance

Less than significant impact.

Impact 4: Sensitive Receptors

The proposed project would not expose sensitive receptors to substantial pollutant concentrations. The local concentrations of criteria pollutant emissions produced in the nearby vicinity of the proposed project, which may expose sensitive receptors to substantial concentrations have been calculated above for construction activities and a qualitative analysis has been provided for operational activities. The discussion below also includes an analysis of the potential impacts from toxic air contaminant emissions. The nearest offsite sensitive receptors are single-family homes located as near as 10 feet (3 meters) from the project site.

Construction-Related Sensitive Receptor Impacts

Construction of the proposed project may expose sensitive receptors to substantial pollutant concentrations of localized criteria pollutant concentrations and from toxic air contaminant emissions created from onsite construction equipment, which are described below.

Local Criteria Pollutant Impacts from Construction

The local air quality impacts from construction of the proposed project has been analyzed above in Table E and found that the construction of the proposed project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance discussed above in Table C. Therefore, construction of the proposed project would create a less than significant construction-related impact to local air quality and no mitigation would be required.

Toxic Air Contaminants Impacts from Construction

The greatest potential for toxic air contaminant emissions would be related to diesel particulate matter (DPM) emissions associated with heavy equipment operations during construction of the proposed project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk". "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given the relatively limited number of heavy-duty construction equipment and the short-term construction schedule, the proposed project would not result in a long-term (i.e., 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. In addition, California Code of Regulations Title 13, Article 4.8, Chapter 9,

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Section 2449 regulates emissions from off-road diesel equipment in California. This regulation limits idling of equipment to no more than five minutes, requires equipment operators to label each piece of equipment and provide annual reports to CARB of their fleet's usage and emissions. This regulation also requires systematic upgrading of the emission Tier level of each fleet, and currently no commercial operator is allowed to purchase Tier 0 or Tier 1 equipment and by January 2023 no commercial operator is allowed to purchase Tier 2 equipment. In addition to the purchase restrictions, equipment operators need to meet fleet average emissions targets that become more stringent each year between years 2014 and 2023.

Additionally, construction activities would be required to follow SCAQMD regulations that limit DPM emissions, including SCAQMD Rule 402 that does not allow the discharge of any source of air contaminants that may create a nuisance at the nearby homes. In addition, the District requires all contractors to adhere to the District's best management practices (BMPs) that limit construction activities and associates emissions from occurring in close proximity to the nearby homes. Therefore, through implementation of State and SCAQMD regulations and the District's BMPs, a less than significant short-term toxic air contaminant impact would occur during construction of the proposed project. As such, construction of the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Operations-Related Sensitive Receptor Impacts

The on-going use of the storm drain channel would not expose sensitive receptors to substantial pollutant concentrations. The only emissions associated with the long-term operations are from weekly routine maintenance trips to the project site by District personnel in a small truck. No change in the routine maintenance schedule would occur from implementation of the proposed project. As such, no long-term operational emissions are anticipated and there would be no impact.

Level of Significance

Less than significant impact.

Impact 5: Objectionable Odors

The proposed project would not create objectionable odors affecting a substantial number of people. Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works, or visits; the type of activity in which he or she is engaged; and the sensitivity of the impacted receptor.

Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the people that live and work in the immediate vicinity of the project site and is typically presented as the mean (or 50 percent of the population). The recognition threshold is the minimum concentration that is recognized as having a

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characteristic odor quality, this is typically represented by recognition by 50 percent of the population. The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies in subjective experience, frequency, odor character, odor intensity, and duration. Potential odor impacts have been analyzed separately for construction and operations below.

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement, paints and solvents and from emissions from diesel equipment. The objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the project site's boundaries. Due to the transitory nature of construction odors, a less than significant odor impact would occur and no mitigation would be required.

Potential Operations-Related Odor Impacts

The proposed project would consist of channel improvements to the current interim dirt lined trapezoidal channel, including the development of a concrete channel and several catch basins to improve capacity for increased flow rates. The proposed project would have the potential to reduce odors that may currently be created in the interim dirt lined channel from organic processes and insufficient capacity of the conveyance of the ultimate condition flow rates. However, current odor levels are nominal and do not rise to a significant enough level to be unpleasant to a majority of the population in the study area. Therefore, a less than significant odor impact would occur from operation of the existing project.

Level of Significance

Less than significant impact.

Impact 6: Generation of Greenhouse Gas Emissions

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The proposed project would consist of improvements to the existing interim dirt lined channel, including the development of a concrete channel and several catch basins. The proposed project is anticipated to generate GHG emissions from construction equipment, however no generation of GHG emissions is anticipated from the operation of the proposed project.

The project's GHG emissions have been calculated with the CalEEMod model. A summary of the results is shown below in Table F and the CalEEMod model run printout is attached to this letter.

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Table F – Construction Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons per Year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Excavation and Grading of Channel	28.70	0.01	0.00	28.81
Channel Construction	31.51	0.00	0.00	31.62
Catch Basin Construction	42.34	0.01	0.00	42.51
Final Grading and Road Construction	5.46	0.00	0.00	5.49
Paving	0.71	0.00	0.00	0.72
Total Construction Emissions	108.72	0.02	0.00	109.14
Amortized Total Construction Emissions (30 years) ¹	3.62	0.00	0.00	3.64
SCAQMD Draft Threshold of Significance				3,000

Notes:

¹ Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.

Source: CalEEMod Version 2013.2.2.

The data provided in Table F above shows that the proposed project would create a total of 109.14 MTCO₂e or 3.64 MTCO₂e per year, when amortized over a 30 year period. In order to identify significance criteria under CEQA for development projects, SCAQMD initiated a Working Group, which provided detailed methodology for evaluating significance under CEQA. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that provides a quantitative annual threshold of 3,000 MTCO₂e for all land use type projects. Although the SCAQMD provided substantial evidence supporting the use of the above threshold, they have not been formally adopted because the SCAQMD was awaiting the outcome of the State Supreme Court decision of the California Building Industry Association v. Bay Area Air Quality Management District (BAAQMD), which was filed on December 17, 2015 and the SCAQMD Board has not yet approved these thresholds. According to the SCAQMD draft threshold of significance, a cumulative global climate change impact would occur if the GHG emissions created from the on-going operations would exceed 3,000 MTCO₂e per year. Therefore, a less than significant generation of greenhouse gas emissions would occur from development of the proposed project. Impacts would be less than significant.

Level of Significance

Less than significant impact.

Impact 7: Greenhouse Gas Plan Consistency

The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. The applicable plans for the proposed project are the *County of Riverside Draft Climate Action Plan*, February 2015 and the SCAQMD Working Group's draft GHG emissions thresholds. The County's Climate Action Plan provides a GHG emission reduction target of a 15 percent decrease from 2008 levels by 2020. The Climate Action Plan provides measures to reduce transportation, energy, area source, water, solid waste, agricultural, and industrial sources of GHG emissions. None of these measures are applicable to the operation of the storm drain channel. As such the proposed project is consistent with the County's Climate Action Plan.

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In addition, as detailed above in Impact 6, implementation of the proposed project would result in the generation of 3.64 MTCO₂e per year. The proposed project would be below the SCAQMD's proposed threshold of 3,000 MTCO₂e per year. As such, the proposed project is consistent with the SCAQMD Working Group's draft GHG emissions thresholds. Therefore, the proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Level of Significance

Less than significant impact.

Please let me know if you have any questions or need additional information with regard to the above analysis. I can be reached at (949) 510-5355, or email me at greg@vistalb.com.

Sincerely,



Greg Tonkovich, AICP
Senior Analyst
Vista Environmental

Encl.: CalEEMod Printouts

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Norco Storm Drain
South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.56	Acre	0.56	24,393.60	0
Other Non-Asphalt Surfaces	2.40	Acre	2.40	104,544.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2017

Utility Company Southern California Edison

CO2 Intensity (lb/MW/hr)	630.89	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2.4 acres Other Non-Asphalt Surfaces; 0.56 Other Asphalt Surfaces.

Construction Phase - 10 days Channel Excavation/Grading; 25 days Catch Basin Const; 25 days Channel Const; 5 days Final Grading/Road Const; 2 days Paving.

Off-road Equipment - Catch Basin Const - 1 crane; 1 tractor/loader/backhoe; 2 signal boards; 1 off-highway truck; 1 concrete saw.

Off-road Equipment - Channel Const: 1 crane, 1 concrete pump, 1 excavator.

Off-road Equipment - Channel Excavation/Grading - 2 excavators; 2 crawler tractors; 2 rubber tired loaders.

Off-road Equipment - Final Grading/Road Const - 1 grader; 1 skid steer loader; 1 off-highway truck.

Off-road Equipment - Paving - 1 paver; 1 roller.

Trips and VMT - 6 vendor trips added to Excavation/Grading of Channel & Final Grading/Road Construct to account for water trucks. Haul truck trip length 15 mi one way.

Grading - 3,075 CY exported during Excavation and Grading of Channel.
 Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403 minimum reqs. water exposure 3 times per day selected.

Table Name	Column Name	Default Value	New Value
tbiConstructionPhase	NumDays	220.00	25.00
tbiConstructionPhase	NumDays	220.00	24.00
tbiConstructionPhase	NumDays	6.00	10.00
tbiConstructionPhase	NumDays	6.00	5.00
tbiConstructionPhase	NumDays	10.00	2.00
tbiGrading	MaterialExported	0.00	3,075.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tbiOffRoadEquipment	PhaseName		Excavation and Grading of Channel
tbiOffRoadEquipment	PhaseName		Excavation and Grading of Channel
tbiOffRoadEquipment	PhaseName		Excavation and Grading of Channel
tbiProjectCharacteristics	OperationalYear	2014	2017
tbiTripsAndVMT	Hauling TripLength	20.00	15.00
tbiTripsAndVMT	Vendor TripNumber	0.00	6.00
tbiTripsAndVMT	Vendor TripNumber	0.00	6.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Year	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2017	3.6469	46.2665	23.7881	0.0631	1.8024	1.6204	3.4229	0.3124	1.4908	1.8032	0.0000	6,337.9919	1.2238	0.0000	0.0000	6,363.6907
Total	3.6469	46.2665	23.7881	0.0631	1.8024	1.6204	3.4229	0.3124	1.4908	1.8032	0.0000	6,337.9919	1.2238	0.0000	0.0000	6,363.6907

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2017	3.6469	46.2665	23.7881	0.0631	1.1343	1.6204	2.7548	0.2393	1.4908	1.7301	0.0000	6,337.9919	6,337.9919	1.2238	0.0000	6,363.6907
Total	3.6469	46.2665	23.7881	0.0631	1.1343	1.6204	2.7548	0.2393	1.4908	1.7301	0.0000	6,337.9919	6,337.9919	1.2238	0.0000	6,363.6907

ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
0.00	0.00	0.00	0.00	37.07	0.00	19.52	23.39	0.00	4.05	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Excavation and Grading of Channel	Grading	6/1/2017	6/14/2017	5	10	
2	Channel Construction	Building Construction	6/15/2017	7/19/2017	5	25	
3	Catch Basin Construction	Building Construction	7/20/2017	8/22/2017	5	24	
4	Final Grading and Road Construction	Grading	8/23/2017	8/29/2017	5	5	
5	Paving	Paving	8/30/2017	8/31/2017	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Excavation and Grading of Channel	Crawler Tractors	2	8.00	208	0.43
Excavation and Grading of Channel	Excavators	2	8.00	162	0.38
Excavation and Grading of Channel	Rubber Tired Loaders	2	8.00	199	0.36
Channel Construction	Cranes	1	8.00	226	0.29
Channel Construction	Excavators	1	8.00	162	0.38
Channel Construction	Pumps	1	8.00	84	0.74
Catch Basin Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Catch Basin Construction	Cranes	1	8.00	226	0.29
Catch Basin Construction	Off-Highway Trucks	1	8.00	400	0.38
Catch Basin Construction	Signal Boards	2	8.00	6	0.82
Catch Basin Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Final Grading and Road Construction	Graders	1	8.00	174	0.41
Final Grading and Road Construction	Off-Highway Trucks	1	8.00	400	0.38
Final Grading and Road Construction	Skid Steer Loaders	1	8.00	64	0.37
Paving	Pavers	1	8.00	125	0.42
Paving	Rollers	1	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Excavation and Grading of Channel	6	15.00	6.00	384.00	14.70	6.90	15.00	LD_Mix	HDT_Mix	HHDT
Channel Construction	3	54.00	21.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Catch Basin Construction	6	54.00	21.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Final Grading and Road Construction	3	8.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Excavation and Grading of Channel - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					1.0953	0.0000	1.0953	0.1198	0.0000	0.1198			0.0000			0.0000
Off-Road	3.0213	38.2203	15.9186	0.0383		1.4983	1.4983	1.3784	1.3784	1.3784		3.912.7236	3.912.7236	1.1989		3.937.8994
Total	3.0213	38.2203	15.9186	0.0383	1.0953	1.4983	2.5935	0.1198	1.3784	1.4982		3.912.7236	3.912.7236	1.1989		3.937.8994

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.5236	7.5012	6.4260	0.0214	0.5020	0.1133	0.6153	0.1375	0.1042	0.2417			2.124.8594	0.0156		2.125.1860
Vendor	0.0459	0.4745	0.5629	1.3000e-003	0.0375	7.5500e-003	0.0451	0.0107	6.9400e-003	0.0176		128.8003	128.8003	9.1000e-004		128.8194
Worker	0.0561	0.0705	0.8806	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.6086	171.6086	8.4400e-003		171.7859
Total	0.6257	8.0462	7.8695	0.0249	0.7072	0.1222	0.8293	0.1926	0.1124	0.3050		2.425.2684	2.425.2684	0.0249		2.425.7913

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.4272	0.0000	0.4272	0.0467	0.0000	0.0467			0.0000			0.0000
Off-Road	3.0213	38.2203	15.9186	0.0383		1.4983	1.4983	1.3784	1.3784	1.3784	0.0000	3,912.7235	3,912.7235	1.1989		3,937.8994
Total	3.0213	38.2203	15.9186	0.0383	0.4272	1.4983	1.9254	0.0467	1.3784	1.4251	0.0000	3,912.7235	3,912.7235	1.1989		3,937.8994

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.5236	7.5012	6.4260	0.0214	0.5020	0.1133	0.6153	0.1375	0.1042	0.2417		2,124.8594	2,124.8594	0.0156		2,125.1860
Vendor	0.0459	0.4745	0.5629	1.3000e-003	0.0375	7.5500e-003	0.0451	0.0107	6.9400e-003	0.0176		128.8003	128.8003	9.1000e-004		128.8194
Worker	0.0561	0.0705	0.8806	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.6086	171.6086	8.4400e-003		171.7859
Total	0.6257	8.0462	7.8695	0.0249	0.7072	0.1222	0.8293	0.1926	0.1124	0.3050		2,425.2684	2,425.2684	0.0249		2,425.7791

3.3 Channel Construction - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.6088	16.2420	10.0090	0.0175		0.8552	0.8552	0.8120	0.8120	0.8120		1,741.5343	1,741.5343	0.3964		1,749.8593
Total	1.6088	16.2420	10.0090	0.0175		0.8552	0.8552	0.8120	0.8120	0.8120		1,741.5343	1,741.5343	0.3964		1,749.8593

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1608	1.6606	1.9700	4.5700e-003	0.1313	0.0264	0.1577	0.0374	0.0243	0.0617		450.8010	450.8010	3.1800e-003		450.8678
Worker	0.2021	0.2539	3.1700	7.6400e-003	0.6036	4.8500e-003	0.6085	0.1601	4.4800e-003	0.1646		617.7911	617.7911	0.0304		618.4293
Total	0.3629	1.9145	5.1400	0.0122	0.7349	0.0313	0.7662	0.1975	0.0288	0.2263		1,068.592	1,068.5921	0.0336		1,069.297
												1				1

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Off-Road	1.6088	16.2420	10.0090	0.0175		0.8552	0.8552		0.8120	0.8120	0.0000	1,741.534	1,741.5343	0.3964		1,749.859
Total	1.6088	16.2420	10.0090	0.0175		0.8552	0.8552		0.8120	0.8120	0.0000	1,741.534	1,741.5343	0.3964		1,749.859
												3				3

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1608	1.6606	1.9700	4.5700e-003	0.1313	0.0264	0.1577	0.0374	0.0243	0.0617		450.8010	450.8010	3.1800e-003		450.8678
Worker	0.2021	0.2539	3.1700	7.6400e-003	0.6036	4.8500e-003	0.6085	0.1601	4.4800e-003	0.1646		617.7911	617.7911	0.0304		618.4293
Total	0.3629	1.9145	5.1400	0.0122	0.7349	0.0313	0.7662	0.1975	0.0288	0.2263		1,068.592	1,068.5921	0.0336		1,069.297
												1				1

3.4 Catch Basin Construction - 2017 Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	2.4532	24.7903	13.5883	0.0288		1.2143	1.2143	1.1439	1.1439	1.1439		2,851.4909	2,851.4909	0.7243		2,866.7004
Total	2.4532	24.7903	13.5883	0.0288		1.2143	1.2143	1.1439	1.1439	1.1439		2,851.490	2,851.4909	0.7243		2,866.700
												9				4

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1608	1.6606	1.9700	4.5700e-003	0.1313	0.0264	0.1577	0.0374	0.0243	0.0617		450.8010	450.8010	3.1800e-003		450.8678
Worker	0.2021	0.2539	3.1700	7.6400e-003	0.6036	4.8500e-003	0.6085	0.1601	4.4800e-003	0.1646		617.7911	617.7911	0.0304		618.4293
Total	0.3629	1.9145	5.1400	0.0122	0.7349	0.0313	0.7662	0.1975	0.0288	0.2263		1,068.592	1,068.5921	0.0336		1,069.297
												1				1

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	2.4532	24.7903	13.5883	0.0288		1.2143	1.2143	1.1439	1.1439	1.1439	0.0000	2,851.4909	2,851.4909	0.7243		2,866.7004
Total	2.4532	24.7903	13.5883	0.0288		1.2143	1.2143	1.1439	1.1439	1.1439	0.0000	2,851.4909	2,851.4909	0.7243		2,866.7004

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	0.1608	1.6606	1.9700	4.5700e-003	0.1313	0.0264	0.1577	0.0374	0.0243	0.0617		450.8010	450.8010	3.1800e-003		450.8678
Worker	0.2021	0.2539	3.1700	7.6400e-003	0.6036	4.8500e-003	0.6085	0.1601	4.4800e-003	0.1646		617.7911	617.7911	0.0304		618.4293
Total	0.3629	1.9145	5.1400	0.0122	0.7349	0.0313	0.7662	0.1975	0.0288	0.2263		1,068.5921	1,068.5921	0.0336		1,069.2971

3.5 Final Grading and Road Construction - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.9312	20.8481	10.9095	0.0214		0.9804	0.9804		0.9020	0.9020		2,189.9864	2,189.9864	0.6710		2,204.0775
Total	1.9312	20.8481	10.9095	0.0214	0.5303	0.9804	1.5107	0.0573	0.9020	0.9592		2,189.9864	2,189.9864	0.6710		2,204.0775

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0459	0.4745	0.5629	1.3000e-003	0.0375	7.5500e-003	0.0451	0.0107	6.9400e-003	0.0176		128.8003	128.8003	9.1000e-004		128.8194
Worker	0.0299	0.0376	0.4696	1.1300e-003	0.0894	7.2000e-004	0.0901	0.0237	6.6000e-004	0.0244		91.5246	91.5246	4.5000e-003		91.6192
Total	0.0759	0.5121	1.0325	2.4300e-003	0.1269	8.2700e-003	0.1352	0.0344	7.6000e-003	0.0420		220.3249	220.3249	5.4100e-003		220.4385

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	1.9312	20.8481	10.9095	0.0214		0.9804	0.9804		0.9020	0.9020		2,189.9864	2,189.9864	0.6710		2,204.0775
Total	1.9312	20.8481	10.9095	0.0214	0.2068	0.9804	1.1872	0.0223	0.9020	0.9243		2,189.9864	2,189.9864	0.6710		2,204.0775

Mitigated Construction Off-Site

Category	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0459	0.4745	0.5629	1.3000e-003	0.0375	7.5500e-003	0.0451	0.0107	6.9400e-003	0.0176		128.8003	128.8003	9.1000e-004		128.8194
Worker	0.0299	0.0376	0.4686	1.1300e-003	0.0894	7.2000e-004	0.0901	0.0237	6.6000e-004	0.0244		91.5246	91.5246	4.5000e-003		91.6192
Total	0.0759	0.5121	1.0325	2.4300e-003	0.1269	8.2700e-003	0.1352	0.0344	7.6000e-003	0.0420		220.3249	220.3249	5.4100e-003		220.4385

3.6 Paving - 2017

Unmitigated Construction On-Site

Category	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.6710	6.9321	4.8269	7.1400e-003		0.4086	0.4086		0.3759	0.3759		730.1781	730.1781	0.2237		734.8764
Paving	0.7336					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4046	6.9321	4.8269	7.1400e-003		0.4086	0.4086		0.3759	0.3759		730.1781	730.1781	0.2237		734.8764

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0187	0.0235	0.2935	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152	57.2029	2.8100e-003	57.2029	2.8100e-003		57.2620
Total	0.0187	0.0235	0.2935	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152	57.2029	2.8100e-003	57.2029	2.8100e-003		57.2620

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	0.6710	6.9321	4.8269	7.1400e-003	0.4086	0.4086	0.4086	0.3759	0.3759	0.3759	0.0000	730.1781	730.1781	0.2237		734.8764
Paving	0.7336				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	1.4046	6.9321	4.8269	7.1400e-003	0.4086	0.4086	0.4086	0.3759	0.3759	0.3759	0.0000	730.1781	730.1781	0.2237		734.8764

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0187	0.0235	0.2935	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152	57.2029	2.8100e-003	57.2029	2.8100e-003		57.2620
Total	0.0187	0.0235	0.2935	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152	57.2029	2.8100e-003	57.2029	2.8100e-003		57.2620

Norco Storm Drain
South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.56	Acre	0.56	24,393.60	0
Other Non-Asphalt Surfaces	2.40	Acre	2.40	104,544.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2017

Utility Company Southern California Edison

CO2 Intensity (lb/MW/hr)	630.89	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2.4 acres Other Non-Asphalt Surfaces; 0.56 Other Asphalt Surfaces.

Construction Phase - 10 days Channel Excavation/Grading; 25 days Channel Const; 25 days Catch Basin Const; 5 days Final Grading/Road Const; 2 days Paving.

Off-road Equipment - Catch Basin Const - 1 crane; 1 tractor/loader/backhoe; 2 signal boards; 1 off-highway truck; 1 concrete saw.

Off-road Equipment - Channel Const: 1 crane, 1 concrete pump, 1 excavator.

Off-road Equipment - Channel Excavation/Grading - 2 excavators; 2 crawler tractors; 2 rubber tired loaders.

Off-road Equipment - Final Grading/Road Const - 1 grader; 1 skid steer loader; 1 off-highway truck.

Off-road Equipment - Paving - 1 paver; 1 roller.

Trips and VMT - 6 vendor trips added to Excavation/Grading of Channel & Final Grading/Road Construct to account for water trucks. Haul truck trip length 15 mi one way.

Grading - 3,075 CY exported during Excavation and Grading of Channel.
 Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403 minimum reqs, water exposure 3 times per day selected.

Table Name	Column Name	Default Value	New Value
tbiConstructionPhase	NumDays	220.00	25.00
tbiConstructionPhase	NumDays	220.00	24.00
tbiConstructionPhase	NumDays	6.00	10.00
tbiConstructionPhase	NumDays	6.00	5.00
tbiConstructionPhase	NumDays	10.00	2.00
tbiGrading	MaterialExported	0.00	3,075.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tbiOffRoadEquipment	PhaseName		Excavation and Grading of Channel
tbiOffRoadEquipment	PhaseName		Excavation and Grading of Channel
tbiOffRoadEquipment	PhaseName		Excavation and Grading of Channel
tbiProjectCharacteristics	OperationalYear	2014	2017
tbiTripsAndVMT	Hauling TripLength	20.00	15.00
tbiTripsAndVMT	Vendor TripNumber	0.00	6.00
tbiTripsAndVMT	Vendor TripNumber	0.00	6.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Year	lb/day																
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
2017	3.6849	46.5461	24.9384	0.0629	1.8024	1.6208	3.4233	0.3124	1.4912	1.8036	0.0000	6.319.548	6.319.5486	1.2241	0.0000	0.0000	6,345.253
Total	3.6849	46.5461	24.9384	0.0629	1.8024	1.6208	3.4233	0.3124	1.4912	1.8036	0.0000	6.319.548	6,319.5486	1.2241	0.0000	0.0000	6,345.253

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2017	3.6849	46.5461	24.9384	0.0629	1.1343	1.6208	2.7552	0.2393	1.4912	1.7305	0.0000	6,319.5486	6,319.5486	1.2241	0.0000	6,345.2538
Total	3.6849	46.5461	24.9384	0.0629	1.1343	1.6208	2.7552	0.2393	1.4912	1.7305	0.0000	6,319.5486	6,319.5486	1.2241	0.0000	6,345.2538

ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
0.00	0.00	0.00	0.00	37.07	0.00	19.52	23.39	0.00	4.05	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Excavation and Grading of Channel	Grading	6/1/2017	6/14/2017	5	10	
2	Channel Construction	Building Construction	6/15/2017	7/19/2017	5	25	
3	Catch Basin Construction	Building Construction	7/20/2017	8/22/2017	5	24	
4	Final Grading and Road Construction	Grading	8/23/2017	8/29/2017	5	5	
5	Paving	Paving	8/30/2017	8/31/2017	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Excavation and Grading of Channel	Crawler Tractors	2	8.00	208	0.43
Excavation and Grading of Channel	Excavators	2	8.00	162	0.38
Excavation and Grading of Channel	Rubber Tired Loaders	2	8.00	199	0.36
Channel Construction	Cranes	1	8.00	226	0.29
Channel Construction	Excavators	1	8.00	162	0.38
Channel Construction	Pumps	1	8.00	84	0.74
Catch Basin Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Catch Basin Construction	Cranes	1	8.00	226	0.29
Catch Basin Construction	Off-Highway Trucks	1	8.00	400	0.38
Catch Basin Construction	Signal Boards	2	8.00	6	0.82
Catch Basin Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Final Grading and Road Construction	Graders	1	8.00	174	0.41
Final Grading and Road Construction	Off-Highway Trucks	1	8.00	400	0.38
Final Grading and Road Construction	Skid Steer Loaders	1	8.00	64	0.37
Paving	Pavers	1	8.00	125	0.42
Paving	Rollers	1	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Excavation and Grading of Channel	6	15.00	6.00	384.00	14.70	6.90	15.00	LD_Mix	HDT_Mix	HHDT
Channel Construction	3	54.00	21.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Catch Basin Construction	6	54.00	21.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Final Grading and Road Construction	3	8.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Excavation and Grading of Channel - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Fugitive Dust					1.0953	0.0000	1.0953	0.1198	0.0000	0.1198			0.0000			0.0000
Off-Road	3.0213	38.2203	15.9186	0.0383		1.4983	1.4983	1.3784	1.3784	2.7568		3.912.723	3.912.7236	1.1989		3.937.899
Total	3.0213	38.2203	15.9186	0.0383	1.0953	1.4983	2.5935	1.3784	1.3784	2.7568		3.912.723	3.912.7236	1.1989		3.937.899

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Hauling	0.5562	7.7622	7.5290	0.0214	0.5020	0.1136	0.6156	0.1375	0.1045	0.2420		2.118.179	2.118.1798	0.0158		2.118.512
Vendor	0.0502	0.4862	0.6819	1.3000e-003	0.0375	7.6200e-003	0.0451	0.0107	7.0100e-003	0.0177		127.7183	127.7183	9.4000e-004		127.7380
Worker	0.0573	0.0775	0.8088	1.9900e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		160.9269	160.9269	8.4400e-003		161.1042
Total	0.6637	8.3258	9.0198	0.0247	0.7072	0.1226	0.8297	0.1926	0.1128	0.3054		2,406.825	2,406.8250	0.0252		2,407.354

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					0.4272	0.0000	0.4272	0.0467	0.0000	0.0467			0.0000			0.0000
Off-Road	3.0213	38.2203	15.9186	0.0383		1.4983	1.4983		1.3784	1.3784	0.0000	3.912.723	3,912.7235	1.1989		3,937.899
Total	3.0213	38.2203	15.9186	0.0383	0.4272	1.4983	1.9254	0.0467	1.3784	1.4251	0.0000	3,912.723	3,912.7235	1.1989		3,937.899

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.5562	7.7622	7.5290	0.0214	0.5020	0.1136	0.6156	0.1375	0.1045	0.2420			2,118.170	0.0158		2,118.512
Vendor	0.0502	0.4862	0.6819	1.3000e-003	0.0375	7.6200e-003	0.0451	0.0107	7.0100e-003	0.0177			127.7183	9.4000e-004		127.7380
Worker	0.0573	0.0775	0.8088	1.9000e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457			160.9269	8.4400e-003		161.1042
Total	0.6637	8.3258	9.0198	0.0247	0.7072	0.1226	0.8297	0.1926	0.1128	0.3054			2,406.825	0.0252		2,407.354

3.3 Channel Construction - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	1.6088	16.2420	10.0090	0.0175		0.8552	0.8552		0.8120	0.8120			1,741.534	0.3964		1,749.859
Total	1.6088	16.2420	10.0090	0.0175		0.8552	0.8552		0.8120	0.8120			1,741.534	0.3964		1,749.859

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1756	1.7016	2.3868	4.5300e-003	0.1313	0.0267	0.1580	0.0374	0.0245	0.0619		447.0141	447.0141	3.2800e-003		447.0830
Worker	0.2062	0.2788	2.9118	7.1600e-003	0.6036	4.8500e-003	0.6085	0.1601	4.4800e-003	0.1646		579.3368	579.3368	0.0304		579.9750
Total	0.3818	1.9804	5.2966	0.0117	0.7349	0.0315	0.7664	0.1975	0.0290	0.2265		1,026.3509	1,026.3509	0.0337		1,027.0580

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Off-Road	1.6088	16.2420	10.0090	0.0175		0.8552	0.8562		0.8120	0.8120	0.0000	1,741.5343	1,741.5343	0.3964		1,749.8593
Total	1.6088	16.2420	10.0090	0.0175		0.8552	0.8562		0.8120	0.8120	0.0000	1,741.5343	1,741.5343	0.3964		1,749.8593

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	0.1756	1.7016	2.3868	4.5300e-003	0.1313	0.0267	0.1580	0.0374	0.0245	0.0619	447.0141	447.0141	447.0141	3.2800e-003		447.0830
Worker	0.2062	0.2788	2.9118	7.1600e-003	0.6036	4.8500e-003	0.6085	0.1601	4.4800e-003	0.1646	579.3368	579.3368	579.3368	0.0304		579.9750
Total	0.3818	1.9804	5.2986	0.0117	0.7349	0.0315	0.7664	0.1975	0.0290	0.2265	1,026.3509	1,026.3509	1,026.3509	0.0337		1,027.0580

3.4 Catch Basin Construction - 2017
Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	2.4532	24.7903	13.5883	0.0288		1.2143	1.2143		1.1439	1.1439		2,851.4909	2,851.4909	0.7243		2,866.7004
Total	2.4532	24.7903	13.5883	0.0288		1.2143	1.2143		1.1439	1.1439		2,851.4909	2,851.4909	0.7243		2,866.7004

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	0.1756	1.7016	2.3868	4.5300e-003	0.1313	0.0267	0.1580	0.0374	0.0245	0.0619	447.0141	447.0141	447.0141	3.2800e-003		447.0830
Worker	0.2062	0.2788	2.9118	7.1600e-003	0.6036	4.8500e-003	0.6085	0.1601	4.4800e-003	0.1646	579.3368	579.3368	579.3368	0.0304		579.9750
Total	0.3818	1.9804	5.2986	0.0117	0.7349	0.0315	0.7664	0.1975	0.0290	0.2265	1,026.3509	1,026.3509	1,026.3509	0.0337		1,027.0580

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	2.4532	24.7903	13.5883	0.0288		1.2143	1.2143		1.1439	1.1439	0.0000	2,851.4909	2,851.4909	0.7243		2,866.7004
Total	2.4532	24.7903	13.5883	0.0288		1.2143	1.2143		1.1439	1.1439	0.0000	2,851.4909	2,851.4909	0.7243		2,866.7004

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1756	1.7016	2.3868	4.5300e-003	0.1313	0.0267	0.1580	0.0374	0.0245	0.0619		447.0141	447.0141	3.2800e-003		447.0830
Worker	0.2062	0.2788	2.9118	7.1600e-003	0.6036	4.8500e-003	0.6085	0.1601	4.4800e-003	0.1646		579.3368	579.3368	0.0304		579.9750
Total	0.3818	1.9804	5.2986	0.0117	0.7349	0.0315	0.7664	0.1975	0.0290	0.2265		1,026.3509	1,026.3509	0.0337		1,027.0580

3.5 Final Grading and Road Construction - 2017
Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.9312	20.8481	10.9095	0.0214		0.9804	0.9804	0.9020	0.9020	0.9020		2.189.9864	2.189.9864	0.6710		2,204.0775
Total	1.9312	20.8481	10.9095	0.0214	0.5303	0.9804	1.5107	0.0573	0.9020	0.9592		2,189.9864	2,189.9864	0.6710		2,204.0775

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0502	0.4862	0.6819	1.3000e-003	0.0375	7.6200e-003	0.0451	0.0107	7.0100e-003	0.0177		127.7183	127.7183	9.4000e-004		127.7380
Worker	0.0305	0.0413	0.4314	1.0600e-003	0.0894	7.2000e-004	0.0901	0.0237	6.6000e-004	0.0244		85.8277	85.8277	4.5000e-003		85.9222
Total	0.0807	0.5275	1.1133	2.3600e-003	0.1269	8.3400e-003	0.1353	0.0344	7.6700e-003	0.0421		213.5460	213.5460	5.4400e-003		213.6602

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	1.9312	20.8481	10.9095	0.0214		0.9804	0.9804	0.9020	0.9020	0.9020		2.189.9864	2,189.9864	0.6710		2,204.0775
Total	1.9312	20.8481	10.9095	0.0214	0.2068	0.9804	1.1872	0.0223	0.9020	0.9243		2,189.9864	2,189.9864	0.6710		2,204.0775

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0502	0.4862	0.6819	1.3000e-003	0.0375	7.6200e-003	0.0451	0.0107	7.0100e-003	0.0177	127.7183	127.7183	9.4000e-004	127.7380		
Worker	0.0305	0.0413	0.4314	1.0600e-003	0.0894	7.2000e-004	0.0901	0.0237	6.6000e-004	0.0244	85.8277	85.8277	4.5000e-003	85.9222		
Total	0.0807	0.5275	1.1133	2.3600e-003	0.1269	8.3400e-003	0.1353	0.0344	7.6700e-003	0.0421	213.5460	213.5460	5.4400e-003	213.6602		

3.6 Paving - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	0.6710	6.9321	4.8269	7.1400e-003	0.4086	0.4086	0.4086	0.3759	0.3759	0.3759	730.1781	730.1781	0.2237	734.8764		
Paving	0.7336				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
Total	1.4046	6.9321	4.8269	7.1400e-003	0.4086	0.4086	0.4086	0.3759	0.3759	0.3759	730.1781	730.1781	0.2237	734.8764		

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Worker	0.0191	0.0258	0.2696	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152	53.6423	53.6423	2.8100e-003			53.7014
Total	0.0191	0.0258	0.2696	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152	53.6423	53.6423	2.8100e-003			53.7014

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	0.6710	6.9321	4.8269	7.1400e-003		0.4086	0.4086		0.3759	0.3759	0.0000	730.1781	730.1781	0.2237		734.8764
Paving	0.7336					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4046	6.9321	4.8269	7.1400e-003		0.4086	0.4086		0.3759	0.3759	0.0000	730.1781	730.1781	0.2237		734.8764

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Worker	0.0191	0.0258	0.2696	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152	53.6423	53.6423	2.8100e-003			53.7014
Total	0.0191	0.0258	0.2696	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152	53.6423	53.6423	2.8100e-003			53.7014

Norco Storm Drain South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.56	Acre	0.56	24,393.60	0
Other Non-Asphalt Surfaces	2.40	Acre	2.40	104,544.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2017

Utility Company Southern California Edison

CO2 Intensity (lb/MMWhr)	630.89	CH4 Intensity (lb/MMWhr)	0.029	N2O Intensity (lb/MMWhr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2.4 acres Other Non-Asphalt Surfaces; 0.56 Other Asphalt Surfaces.

Construction Phase - 10 days Channel Excavation/Grading; 25 days Channel Const; 25 days Catch Basin Const; 5 days Final Grading/Road Const; 2 days

Off-road Equipment - Catch Basin Const - 1 crane; 1 tractor/loader/backhoe; 2 signal boards; 1 off-highway truck; 1 concrete saw.

Off-road Equipment - Channel Const: 1 crane, 1 concrete pump, 1 excavator.

Off-road Equipment - Channel Excavation/Grading - 2 excavators; 2 crawler tractors; 2 rubber tired loaders.

Off-road Equipment - Final Grading/Road Const - 1 grader; 1 skid steer loader; 1 off-highway truck.

Off-road Equipment - Paving - 1 paver; 1 roller.

Trips and VMT - 6 vendor trips added to Excavation/Grading of Channel & Final Grading/Road Construct to account for water trucks. Haul truck trip length 15 mi one way.

Grading - 3,075 CY exported during Excavation and Grading of Channel.

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403 minimum reqs. water exposure 3 times per day selected.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	220.00	25.00
tblConstructionPhase	NumDays	220.00	24.00
tblConstructionPhase	NumDays	6.00	10.00
tblConstructionPhase	NumDays	6.00	5.00
tblConstructionPhase	NumDays	10.00	2.00
tblGrading	MaterialExported	0.00	3,075.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Excavation and Grading of Channel
tblOffRoadEquipment	PhaseName		Excavation and Grading of Channel
tblOffRoadEquipment	PhaseName		Excavation and Grading of Channel
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	Hauling TripLength	20.00	15.00
tblTripsAndVMT	Vendor TripNumber	0.00	6.00
tblTripsAndVMT	Vendor TripNumber	0.00	6.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Year	tons/yr											MT/yr				
	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
2017	0.0833	0.8439	0.5772	1.2400e-003	0.0283	0.0370	0.0653	6.5500e-003	0.0347	0.0412	0.0000	108.7160	108.7160	0.0204	0.0000	109.1448
Total	0.0833	0.8439	0.5772	1.2400e-003	0.0283	0.0370	0.0653	6.5500e-003	0.0347	0.0412	0.0000	108.7160	108.7160	0.0204	0.0000	109.1448

Mitigated Construction

Year															
ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr															
Mit/yr															
0.0833	0.8439	0.5772	1.2400e-003	0.0242	0.0370	0.0612	6.1000e-003	0.0347	0.0408	0.0000	108.7159	108.7159	0.0204	0.0000	109.1447
0.0833	0.8439	0.5772	1.2400e-003	0.0242	0.0370	0.0612	6.1000e-003	0.0347	0.0408	0.0000	108.7159	108.7159	0.0204	0.0000	109.1447

ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
0.00	0.00	0.00	0.00	14.65	0.00	6.35	6.87	0.00	1.09	0.00	0.00	0.00	0.00	0.00	0.00
Percent Reduction															

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Excavation and Grading of Channel	Grading	6/1/2017	6/14/2017	5	10	
2	Channel Construction	Building Construction	6/15/2017	7/19/2017	5	25	
3	Catch Basin Construction	Building Construction	7/20/2017	8/22/2017	5	24	
4	Final Grading and Road Construction	Grading	8/23/2017	8/29/2017	5	5	
5	Paving	Paving	8/30/2017	8/31/2017	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Excavation and Grading of Channel	Crawler Tractors	2	8.00	208	0.43
Excavation and Grading of Channel	Excavators	2	8.00	162	0.38
Excavation and Grading of Channel	Rubber Tired Loaders	2	8.00	199	0.36
Channel Construction	Cranes	1	8.00	226	0.29
Channel Construction	Excavators	1	8.00	162	0.38
Channel Construction	Pumps	1	8.00	84	0.74
Catch Basin Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Catch Basin Construction	Cranes	1	8.00	226	0.29
Catch Basin Construction	Off-Highway Trucks	1	8.00	400	0.38
Catch Basin Construction	Signal Boards	2	8.00	6	0.82
Catch Basin Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Final Grading and Road Construction	Graders	1	8.00	174	0.41
Final Grading and Road Construction	Off-Highway Trucks	1	8.00	400	0.38
Final Grading and Road Construction	Skid Steer Loaders	1	8.00	64	0.37
Paving	Pavers	1	8.00	125	0.42
Paving	Rollers	1	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Excavation and Grading of Channel	6	15.00	6.00	384.00	14.70	6.90	15.00	LD_Mix	HDT_Mix	HHDT
Channel Construction	3	54.00	21.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Catch Basin Construction	6	54.00	21.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Final Grading and Road Construction	3	8.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Excavation and Grading of Channel - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Fugitive Dust					5.4800e-003	0.0000	5.4800e-003	6.0000e-004	0.0000	6.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0151	0.1911	0.0796	1.9000e-004		7.4900e-003	7.4900e-003	6.8900e-003	6.8900e-003	6.8900e-003	0.0000	17.7478	17.7478	5.4400e-003	0.0000	17.8620
Total	0.0151	0.1911	0.0796	1.9000e-004	5.4800e-003	7.4900e-003	0.0130	6.0000e-004	6.8900e-003	7.4900e-003	0.0000	17.7478	17.7478	5.4400e-003	0.0000	17.8620
MT/yr																

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Hauling	2.7400e-003	0.0395	0.0369	1.1000e-004	2.4700e-003	5.7000e-004	3.0400e-003	6.8000e-004	5.2000e-004	1.2000e-003	0.0000	9.6255	9.6255	7.0000e-005	0.0000	9.6270
Vendor	2.4000e-004	2.4800e-003	3.3100e-003	1.0000e-005	1.8000e-004	4.0000e-005	2.2000e-004	5.0000e-005	3.0000e-005	9.0000e-005	0.0000	0.5822	0.5822	0.0000	0.0000	0.5823
Worker	2.7000e-004	4.0000e-004	4.1400e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7413	0.7413	4.0000e-005	0.0000	0.7421
Total	3.2500e-003	0.0424	0.0443	1.3000e-004	3.4700e-003	6.2000e-004	4.0900e-003	9.5000e-004	5.6000e-004	1.5100e-003	0.0000	10.9490	10.9490	1.1000e-004	0.0000	10.9514
MT/yr																

Mitigated Construction On-Site

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					2.1400e-003	0.0000	2.1400e-003	2.3000e-004	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0151	0.1911	0.0796	1.9000e-004		7.4900e-003	7.4900e-003	6.8900e-003	6.8900e-003	6.8900e-003	0.0000	17.7478	17.7478	5.4400e-003	0.0000	17.8620
Total	0.0151	0.1911	0.0796	1.9000e-004	2.1400e-003	7.4900e-003	9.6300e-003	2.3000e-004	6.8900e-003	7.1200e-003	0.0000	17.7478	17.7478	5.4400e-003	0.0000	17.8620

Mitigated Construction Off-Site

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	2.7400e-003	0.0395	0.0369	1.1000e-004	2.4700e-003	5.7000e-004	3.3400e-003	6.3000e-004	5.2000e-004	1.2000e-003	0.0000	3.6255	3.6255	7.0000e-005	0.0000	9.6270
Vendor	2.4000e-004	2.4800e-003	3.3100e-003	1.0000e-005	1.8000e-004	4.0000e-005	2.2000e-004	5.0000e-005	3.0000e-005	9.0000e-005	0.0000	0.5822	0.5822	0.0000	0.0000	0.5823
Worker	2.7000e-004	4.0000e-004	4.7400e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7413	0.7413	4.0000e-005	0.0000	0.7421
Total	3.2500e-003	0.0424	0.0443	1.3000e-004	3.4700e-003	6.2000e-004	4.0900e-003	9.5000e-004	5.6000e-004	1.5100e-003	0.0000	10.9490	10.9490	1.1000e-004	0.0000	10.9514

**3.3 Channel Construction - 2017
Unmitigated Construction On-Site**

Category	tons/yr											MT/yr				
	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
Off-Road	0.0201	0.2030	0.1251	2.2000e-004		0.0107	0.0107	0.0102	0.0102	0.0102	0.0000	19.7487	19.7487	4.5000e-003	0.0000	19.8431
Total	0.0201	0.2030	0.1251	2.2000e-004		0.0107	0.0107	0.0102	0.0102	0.0102	0.0000	19.7487	19.7487	4.5000e-003	0.0000	19.8431

Unmitigated Construction Off-Site

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1400e-003	0.0217	0.0230	6.0000e-005	1.6200e-003	3.3000e-004	1.9500e-003	4.6000e-004	3.1000e-004	7.7000e-004	0.0000	5.0940	5.0940	4.0000e-005	0.0000	5.0947
Worker	2.4200e-003	3.5900e-003	0.0373	9.0000e-005	7.4100e-003	6.0000e-005	7.4700e-003	1.9700e-003	6.0000e-005	2.0200e-003	0.0000	6.6720	6.6720	3.4000e-004	0.0000	6.6792
Total	4.5600e-003	0.0253	0.0663	1.5000e-004	9.0300e-003	3.9000e-004	9.4200e-003	2.4300e-003	3.7000e-004	2.7900e-003	0.0000	11.7659	11.7659	3.8000e-004	0.0000	11.7739

Mitigated Construction On-Site

Category	tons/yr											MT/yr				
	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
Off-Road	0.0201	0.2030	0.1251	2.2000e-004		0.0107	0.0107		0.0102	0.0102	0.0000	19.7486	19.7486	4.5000e-003	0.0000	19.8431
Total	0.0201	0.2030	0.1251	2.2000e-004		0.0107	0.0107		0.0102	0.0102	0.0000	19.7486	19.7486	4.5000e-003	0.0000	19.8431

Mitigated Construction Off-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1400e-003	0.0217	0.0290	6.0000e-005	1.6200e-003	3.3000e-004	1.9500e-003	4.6000e-004	3.1000e-004	7.7000e-004	0.0000	5.0940	4.0000e-005	0.0000	0.0000	5.0947
Worker	2.4200e-003	3.5900e-003	0.0373	9.0000e-005	7.4100e-003	6.0000e-005	7.4700e-003	1.9700e-003	6.0000e-005	2.0200e-003	0.0000	6.6720	3.4000e-004	0.0000	0.0000	6.6792
Total	4.5600e-003	0.0253	0.0663	1.5000e-004	9.0300e-003	3.9000e-004	9.4200e-003	2.4300e-003	3.7000e-004	2.7900e-003	0.0000	11.7659	3.8000e-004	0.0000	0.0000	11.7739

3.4 Catch Basin Construction - 2017

Unmitigated Construction On-Site

Category	tons/yr										MT/yr					
	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
Off-Road	0.0294	0.2975	0.1631	3.5000e-004	0.0146	0.0146	0.0146	0.0137	0.0137	0.0137	0.0000	31.0420	7.8800e-003	0.0000	0.0000	31.2075
Total	0.0294	0.2975	0.1631	3.5000e-004	0.0146	0.0146	0.0146	0.0137	0.0137	0.0137	0.0000	31.0420	7.8800e-003	0.0000	0.0000	31.2075

Unmitigated Construction Off-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0500e-003	0.0208	0.0278	5.0000e-005	1.5500e-003	3.2000e-004	1.8700e-003	4.4000e-004	2.9000e-004	7.4000e-004	0.0000	4.8902	4.0000e-005	0.0000	0.0000	4.8909
Worker	2.3300e-003	3.4500e-003	0.0358	9.0000e-005	7.1100e-003	6.0000e-005	7.1700e-003	1.8900e-003	5.0000e-005	1.9400e-003	0.0000	6.4051	3.3000e-004	0.0000	0.0000	6.4120
Total	4.3800e-003	0.0243	0.0636	1.4000e-004	8.6600e-003	3.8000e-004	9.0400e-003	2.3300e-003	3.4000e-004	2.6800e-003	0.0000	11.2953	3.7000e-004	0.0000	0.0000	11.3030

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	tons/yr															
Off-Road	0.0294	0.2975	0.1631	3.5000e-004		0.0146	0.0146		0.0137	0.0137	0.0000	31.0419	31.0419	7.8800e-003	0.0000	31.2075
Total	0.0294	0.2975	0.1631	3.5000e-004		0.0146	0.0146		0.0137	0.0137	0.0000	31.0419	31.0419	7.8800e-003	0.0000	31.2075

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	tons/yr															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0500e-003	0.0208	0.0278	5.0000e-005	1.5500e-003	3.2000e-004	1.8700e-003	4.4000e-004	2.9000e-004	7.4000e-004	0.0000	4.8902	4.8902	4.0000e-005	0.0000	4.8909
Worker	2.3300e-003	3.4500e-003	0.0358	9.0000e-005	7.1100e-003	6.0000e-005	7.1700e-003	1.8900e-003	5.0000e-005	1.9400e-003	0.0000	6.4051	6.4051	3.3000e-004	0.0000	6.4120
Total	4.3800e-003	0.0243	0.0636	1.4000e-004	8.6600e-003	3.8000e-004	9.0400e-003	2.3300e-003	3.4000e-004	2.6800e-003	0.0000	11.2953	11.2953	3.7000e-004	0.0000	11.3030

3.5 Final Grading and Road Construction - 2017
Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
MT/yr																
Fugitive Dust					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8300e-003	0.0521	0.0273	5.0000e-005		2.4500e-003	2.4500e-003	2.2500e-003	2.2500e-003	2.2500e-003	0.0000	4.9668	4.9668	1.5200e-003	0.0000	4.9988
Total	4.8300e-003	0.0521	0.0273	5.0000e-005	1.3300e-003	2.4500e-003	3.7800e-003	1.4000e-004	2.2500e-003	2.3900e-003	0.0000	4.9668	4.9668	1.5200e-003	0.0000	4.9988

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
MT/yr																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	1.2400e-003	1.6600e-003	0.0000	9.0000e-005	2.0000e-005	1.1000e-004	3.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.2911	0.2911	0.0000	0.0000	0.2911
Worker	7.0000e-005	1.1000e-004	1.1100e-003	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1977	0.1977	1.0000e-005	0.0000	0.1979
Total	1.9000e-004	1.3500e-003	2.7700e-003	0.0000	3.1000e-004	2.0000e-005	3.3000e-004	9.0000e-005	2.0000e-005	1.0000e-004	0.0000	0.4888	0.4888	1.0000e-005	0.0000	0.4890

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
MT/yr																
Fugitive Dust					5.2000e-004	0.0000	5.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8300e-003	0.0521	0.0273	5.0000e-005		2.4500e-003	2.4500e-003	2.2500e-003	2.2500e-003	2.2500e-003	0.0000	4.9668	4.9668	1.5200e-003	0.0000	4.9988
Total	4.8300e-003	0.0521	0.0273	5.0000e-005	5.2000e-004	2.4500e-003	2.9700e-003	6.0000e-005	2.2500e-003	2.3100e-003	0.0000	4.9668	4.9668	1.5200e-003	0.0000	4.9988

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	tons/yr					MT/yr							
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Non-Biogenic CO2	Total CO2	CH4	N2O	CO2e	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	1.2400e-003	1.6600e-003	0.0000	9.0000e-005	2.0000e-005	1.1000e-004	3.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.2911	0.0000	0.0000	0.0000	0.0000	0.2911
Worker	7.0000e-005	1.1000e-004	1.1100e-003	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	3.1977	1.0000e-005	1.0000e-005	0.0000	0.0000	0.1979
Total	1.9000e-004	1.3500e-003	2.7700e-003	0.0000	3.1000e-004	2.0000e-005	3.3000e-004	9.0000e-005	2.0000e-005	1.0000e-004	0.0000	0.4888	1.0000e-005	1.0000e-005	0.0000	0.0000	0.4890

3.6 Paving - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	tons/yr					MT/yr							
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Non-Biogenic CO2	Total CO2	CH4	N2O	CO2e	
Off-Road	6.7000e-004	6.9300e-003	4.8300e-003	1.0000e-005	4.1000e-004	4.1000e-004	4.1000e-004	3.8000e-004	3.8000e-004	3.8000e-004	0.0000	0.6624	2.0000e-004	2.0000e-004	0.0000	0.0000	0.6667
Paving	7.3000e-004				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.4000e-003	6.9300e-003	4.8300e-003	1.0000e-005	4.1000e-004	4.1000e-004	4.1000e-004	3.8000e-004	3.8000e-004	3.8000e-004	0.0000	0.6624	2.0000e-004	2.0000e-004	0.0000	0.0000	0.6667

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	3.0000e-005	2.8000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0494	0.0494	0.0000	0.0000	0.0495
Total	2.0000e-005	3.0000e-005	2.8000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0494	0.0494	0.0000	0.0000	0.0495

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Off-Road	6.7000e-004	6.9300e-003	4.8300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	3.8000e-004	0.0000	3.8000e-004	0.0000	0.6624	0.6624	2.0000e-004	0.0000	0.6667
Paving	7.3000e-004				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.4000e-003	6.9300e-003	4.8300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	3.8000e-004	0.0000	3.8000e-004	0.0000	0.6624	0.6624	2.0000e-004	0.0000	0.6667

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	3.0000e-005	2.8000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0494	0.0494	0.0000	0.0000	0.0495
Total	2.0000e-005	3.0000e-005	2.8000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0494	0.0494	0.0000	0.0000	0.0495

Appendix B

Noise Technical Memorandum

VISTA ENVIRONMENTAL

December 5, 2016

Josephine Alido
Psomas
3 Hutton Centre Drive, Suite 200
Santa Ana, CA 92707

Subject: Riverside County Flood Control and Water Conservation District (District) – North Norco Channel Line NB, Stage 3 Project Noise Technical Memorandum.

Dear Ms. Alido:

Vista Environmental has conducted an analysis to evaluate whether the North Norco Channel Line NB, Stage 3 project (proposed project) would cause significant noise impacts. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.).

Project Description

The proposed project would consist of channel improvements to an existing 1,750-foot long channel located along the westerly extension of Gallop Way, east of Interstate 15 in the City of Norco. The proposed channel would consist of approximately 200 lineal feet of reinforced concrete box (RBC), 370 feet of concrete lined rectangular channel, and 1,180 feet of concrete lined trapezoidal channel. The project will also incorporate numerous catch basins for the safe introduction of flow from the surrounding neighborhoods into the channel. Catch basins would be located on Fortuna Road, Sierra Avenue, Gallop Way, and Valley View Avenue in close proximity to the channel.

The project site is surrounded by residential uses that are designated Residential Agricultural (RA) in the Norco General Plan and the nearest offsite sensitive receptors to the project site consist of single-family homes located as near as 10 feet from the project site. The nearest school to the project site is Sierra Vista Elementary School, located as near as 0.4 mile northeast of the project site.

Environmental Setting

Currently, the primary sources of noise within the study area consists of vehicle traffic on Interstate 15, Sierra Avenue, and Valley View Avenue. In order to determine the existing noise levels, three short-term ambient noise measurements were taken in the vicinity of the proposed project between 10:46 a.m. and 11:40 a.m. on Wednesday, November 2, 2016. The results of the noise level measurements are presented in Table A and the noise measurement printouts are attached to this letter along with a photo index showing the locations of the noise measurements.

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Table A – Existing (Ambient) Noise Level Measurements

Site No.	Description	Primary Noise Source	Start Time of Measurement	Noise Level (dBA L_{eq}/L_{max})
1	Located approximately 25 feet north of Fortuna Road center line and 35 feet east of Melanie Avenue center line.	Interstate 15	10:46 a.m.	55.0/61.1
2	Located approximately in 85 feet west of Sierra Avenue center line and 20 feet north of the Channel center line.	Sierra Avenue	11:05 a.m.	57.6/68.4
3	Located approximately 75 feet southwest of Valley View Avenue centerline and 30 feet north of the Channel center line.	Valley View Avenue	11:25 a.m.	53.4/63.2

Source: Noise measurements taken with a Larson Davis Model 831 Type I precision sound level meter on Wednesday, November 2, 2016.

Impact Analysis

CEQA Thresholds of Significance

Consistent with CEQA and the State CEQA Guidelines, a significant impact related to noise would occur if the proposed project is determined to result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above existing levels without the proposed project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above noise levels existing without the proposed project; or
- Exposure of persons residing or working in the project area to excessive noise levels from aircraft.

Impact 1: Generation of Noise Levels in Excess of Standards

The proposed project would not expose persons to or generate noise levels in excess of standards established in the Norco General Plan or Noise Ordinance or applicable standards of other agencies. The following section calculates the potential noise emissions associated with the construction and operations of the proposed project and compares the noise levels to the City standards.

Construction-Related Noise

The construction activities for the proposed project are anticipated to include excavation and grading of the existing dirt lined channel, construction of a concrete channel and catch basins, grading of existing access roads, and paving of onsite roads. Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The

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nearest sensitive receptors to the project site consist of single-family homes located as near as 10 feet from the project site.

Section 9.07.020(B) of the City of Norco Municipal Code (Municipal Code) exempts capital improvement project construction noise carried out by a governmental agency. However, it should be noted that construction activities for the proposed project would adhere to the District's Standard Operating Procedures that limit construction activities to between the hours of 7:00 a.m. and 5:00 p.m., which are consistent with the time of day limitations to construction activities performed by non-governmental entities within the City that are detailed in Section 9.07.020 of the Municipal Code. Therefore, construction of the proposed project would not exceed any construction noise standards provided in the City of Norco Municipal Code or General Plan. Impacts would be less than significant.

Operational-Related Noise

The proposed project would consist of improvements to the existing 1,750-foot long dirt lined channel, including the development of a concrete channel and catch basins. The on-going operation of the proposed project would not result in a long-term increase in noise levels. The only noise sources associated with the long-term operations of the project are annual routine maintenance trips to the project site by District personnel in a small truck. No change in the routine maintenance schedule would occur from implementation of the proposed project. Therefore, no long-term increase in operational noise levels is anticipated and there would be no impact.

Level of Significance

Less than significant impact.

Impact 2: Groundborne Vibration

The proposed project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels. Since neither the Municipal Code nor the General Plan provide a quantifiable vibration threshold, the thresholds provided in *Transportation and Construction Vibration Guidance Manual*, prepared by Caltrans, 2013 has been utilized that defines the threshold of perception from transient sources at 0.25 inch per second peak particle velocity (PPV). The following section analyzes the potential vibration impacts associated with the construction and operations of the proposed project.

Construction-Related Vibration Impacts

The construction activities for the proposed project are anticipated to include excavation and grading of the existing dirt lined channel, construction of a concrete channel and catch basins, grading of existing access roads, and paving of onsite roads. Vibration impacts from construction activities associated with the proposed project would typically be created from the operation of heavy off-road equipment. The nearest sensitive receptors to the project site consist of single-family homes located as near as 10 feet from the project site.

The construction equipment that would be used for the project would only include concrete/industrial saws, cranes, crawler tractors, excavators, graders, concrete pump, pavers, rollers, rubber tired loaders, dump trucks, signal boards and skid steer loaders. (see page 26 of 30 of the EIP) The *Transit Noise and Vibration Impact Assessment*, prepared by the Federal Transit Administration, 2006 analyzed vibration levels created by various types of construction equipment and from this list a loaded truck would be the equipment that would produce the largest level of vibration that would be utilized during construction of

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the proposed project. A loaded truck would create a vibration level of 0.076 inch per second PPV at 25 feet. Based on typical propagation rates, the vibration level at the nearest offsite receptor (10 feet away) would be 0.21 inch per second PPV. The vibration level at the nearest offsite receptor is within the 0.25 inch per second PPV threshold for transient sources. Therefore, construction-related vibration impacts would be less than significant.

Operations-Related Vibration Impacts

The proposed project would consist of improvements to the existing 1,750-foot long dirt lined channel, including the development of a concrete channel and catch basins. The on-going operation of the proposed project would not include the operation of any known vibration sources. Therefore, no vibration impact is anticipated from the operation of the proposed project.

Level of Significance

Less than significant impact.

Impact 3: Permanent Increase in Ambient Noise Levels

The ongoing operation of the proposed project would not result in a potential substantial permanent increase in ambient noise levels in the project vicinity above existing levels without the proposed project. The only noise sources associated with the long-term operations of the project are annual routine maintenance trips to the project site by District personnel in a small truck. No change in the routine maintenance schedule would occur from the proposed project. As such, the proposed project would not result in a substantial permanent increase in ambient noise levels and no impact would occur.

Level of Significance

No impact.

Impact 4: Temporary or Periodic Increase in Ambient Noise

The proposed project would not create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above noise levels existing without the proposed project. The construction activities for the proposed project are anticipated to include excavation and grading of the existing dirt lined channel, construction of a concrete channel and catch basins, grading of existing access roads, and paving of onsite roads. Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The nearest sensitive receptors to the project site consist of single-family homes located as near as 10 feet from the project site.

Section 9.07.020(B) of the City of Norco Municipal Code (Municipal Code) exempts capital improvement project construction noise carried out by a governmental agency. The City construction noise standards do not provide any limits to the noise levels that may be created during construction activities at the nearby sensitive receptors. Thus, the resultant construction noise levels may result in a significant substantial temporary noise increase at the nearby sensitive receptors.

In order to determine if the proposed construction activities would create a significant substantial temporary noise increase, the OSHA limits for noise exposure have been utilized. The use of a significance threshold using an OSHA standard is considered conservative. The OSHA standard limits

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noise exposure of workers to 90 dB or less over eight continuous hours or 105 dB or less over one continuous hour. This standard has been utilized to analyze the construction noise impacts to the sensitive receptors located at the nearby offsite residences as a result of the proposed project. According to the District, the excavation and grading activities that would occur near the offsite residences would consist of the use of excavators and loaders that would make several passes over each portion of the project site, which would limit channel excavation and grading activities near any particular offsite residence to less than one hour intervals. However, channel and catch basin construction and paving activities would have the potential to occur in the proximity of the same offsite residence for eight continuous hours. Therefore, the one-hour standard of 105 dB has been utilized as the threshold for channel excavation and grading and final grading and road construction and the eight-hour standard of 90 dB has been utilized as the threshold for channel construction, catch basin construction, and paving activities.

Construction noise impacts to the nearby sensitive receptors have been calculated through use of the FHWA's Roadway Construction Noise Model (RCNM) and the results are shown below in Table B and the RCNM printouts are attached to this Memorandum.

Table B Worst-Case Construction Noise Levels at Nearest Offsite Residences

Construction Phase	Distance to Nearest Offsite Residence ¹ (feet)	Construction Noise Level (dBA Leq)	Threshold ² (dBA Leq)
Excavation and Grading of Channel	25	84	105
Channel Construction	25	80	90
Catch Basin Construction	30	80	90
Final Grading and Road Construction	15	92	105
Paving	30	79	90

Notes:

¹ The nearest offsite residences are single-family homes as near as 10 feet from the project site.

² Threshold for Excavation and Grading activities are based on the OSHA one hour standard of 105 dB and the threshold for building channel and catch basin construction and paving activities are based on the OSHA eight hour standard of 90 dB.

Source: RCNM, Federal Highway Administration, 2006.

Table B shows that greatest noise impacts would occur during the final grading and road construction phase of construction, with a noise level as high as 92 dBA Leq at the nearest offsite residential use. However, none of the construction phases would exceed the OSHA noise standards for each particular use, which is based on the anticipated duration of each impact. Therefore, the proposed project would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the Proposed Project and impacts would be less than significant.

Level of Significance

Less than significant impact.

Impact 5: Aircraft Noise

The proposed project would not expose people residing or working in the project area to excessive noise levels from aircraft. The proposed project is not located within an airport land use plan, and is not within two miles of an airport. There are no private airstrips in the area and the closest airport is the Corona Municipal Airport located 3.1 miles to the southwest. The project site is located outside of the 65 dBA CNEL noise contours of this airport and site observations during the noise measurements found that although aircraft noise is occasionally audible at the project site, the noise created by the aircraft is not

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loud enough to measurably increase the ambient noise levels, which is primarily created by vehicles on the nearby roads. Impacts would be less than significant.

Level of Significance

Less than significant impact.

Please let me know if you have any questions or need additional information with regard to the above analysis. I can be reached at (949) 510-5355, or email me at greg@vistalb.com.

Sincerely,



Greg Tonkovich, INCE
Senior Analyst
Vista Environmental

Encl.: Noise Measurement Printouts and a Photo Index of Noise Measurement Locations
RCNM Printouts

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Noise Measurement Site 1 - Looking North



Noise Measurement Site 1 - Looking Northeast



Noise Measurement Site 1 - Looking East



Noise Measurement Site 1 - Looking Southeast



Noise Measurement Site 1 - Looking South



Noise Measurement Site 1 - Looking Southwest



Noise Measurement Site 1 - Looking West



Noise Measurement Site 1 - Looking Northwest



Noise Measurement Site 2 - Looking North



Noise Measurement Site 2 - Looking Northeast



Noise Measurement Site 2 - Looking East



Noise Measurement Site 2 - Looking Southeast



Noise Measurement Site 2 - Looking South



Noise Measurement Site 2 - Looking Southwest



Noise Measurement Site 2 - Looking West



Noise Measurement Site 2 - Looking Northwest



Noise Measurement Site 3 - Looking North



Noise Measurement Site 3 - Looking Northeast



Noise Measurement Site 3 - Looking East



Noise Measurement Site 3 - Looking Southeast



Noise Measurement Site 3 - Looking South



Noise Measurement Site 3 - Looking Southwest



Noise Measurement Site 3 - Looking West

General Information

Serial Number 02509
 Model 831
 Firmware Version 2.301
 Filename 831_Data.001
 User GT
 Job Description Gallop Way Channelization Project
 Location Front Yard at 1451 Fortuna Rd

Measurement Description

Start Time Wednesday, 2016 November 02 10:46:51
 Stop Time Wednesday, 2016 November 02 11:01:52
 Duration 00:15:00.6
 Run Time 00:15:00.6
 Pause 00:00:00.0
 Pre Calibration Wednesday, 2016 November 02 10:44:45
 Post Calibration
 Calibration Deviation None

Note

Approx 25 feet north of Fortuna Rd CL and 35 feet east of Melanie Ave CL
 75F, 29.38 inHg, 23% Hu., 8 mph wind, clear sky

Overall Data

LAeq		55.0	dB
LASmax	2016 Nov 02 10:53:30	61.1	dB
LAPeak (max)	2016 Nov 02 10:54:42	81.0	dB
LASmin	2016 Nov 02 11:01:12	50.8	dB
LCeq		69.6	dB
LAeq		55.0	dB
LCeq - LAeq		14.6	dB
LA1eq		56.6	dB
LAeq		55.0	dB
LA1eq - LAeq		1.6	dB
Ldn		55.0	dB
LDay 07:00-23:00		55.0	dB
LNight 23:00-07:00		---	dB
Lden		55.0	dB
LDay 07:00-19:00		55.0	dB
LEvening 19:00-23:00		---	dB
LNight 23:00-07:00		---	dB
LAE		84.5	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics

LAS5.00	57.6	dB
LAS10.00	56.7	dB
LAS33.30	55.1	dB
LAS50.00	54.5	dB
LAS66.60	54.0	dB
LAS90.00	52.9	dB
LAS > 65.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LAS > 85.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LAPeak > 135.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LAPeak > 137.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
LAPeak > 140.0 dB (Exceedence Counts / Duration)	0 / 0.0	s

Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	Bin Max	
Gain	+0	dB
Under Range Limit	26.1	dB
Under Range Peak	75.2	dB
Noise Floor	16.9	dB
Overload	142.7	dB

1/3 Spectra

Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	79.5	74.2	67.0	60.6	55.8	52.5	52.1	51.8	45.1	40.0	39.7	42.5
LZSmax	92.6	89.8	82.4	73.7	65.9	63.2	62.7	56.8	50.9	49.0	44.3	43.3
LZSmin	53.6	50.8	48.4	52.8	49.8	42.6	47.1	47.9	40.9	36.6	38.9	42.3

1/3 Spectra

Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	76.3	74.5	72.8	71.2	69.3	66.6	64.4	61.7	59.3	56.8	54.6	55.6
LZSmax	89.8	89.0	87.7	87.2	84.4	83.4	78.5	78.2	75.3	71.8	67.8	73.5
LZSmin	47.1	45.7	47.1	46.1	47.6	47.6	45.9	46.4	46.5	47.1	43.8	41.5
Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	51.7	51.3	50.0	47.4	48.1	47.7	47.1	47.5	47.4	48.1	47.5	45.2
LZSmax	62.0	65.2	60.9	57.6	59.4	59.7	61.0	57.2	55.0	53.9	52.4	49.5
LZSmin	45.2	44.3	41.1	40.3	39.7	38.3	40.9	41.9	42.8	43.4	42.0	40.8
Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	42.4	39.6	37.5	36.3	35.1	34.2	34.3	34.8	35.6	36.6	37.4	39.0
LZSmax	47.6	45.8	44.5	45.2	46.2	40.9	40.0	39.4	38.5	38.4	38.2	39.8
LZSmin	36.8	35.7	33.2	30.4	31.4	31.9	32.8	33.9	34.2	35.9	37.1	38.8

Calibration History

Preamp	Date	dB re. 1V/Pa
PRM831	02 Nov 2016 10:44:45	-25.2
PRM831	22 Sep 2016 15:49:59	-26.5
PRM831	24 Aug 2016 19:03:10	-26.1
PRM831	26 Jul 2016 10:53:46	-26.0
PRM831	26 Jul 2016 09:33:01	-26.4
PRM831	26 Jul 2016 07:41:35	-25.1
PRM831	25 Jul 2016 14:18:53	-26.4
PRM831	25 Jul 2016 12:49:23	-25.2
PRM831	25 Jul 2016 09:43:52	-24.8
PRM831	25 Jul 2016 07:24:48	-25.6
PRM831	22 Jul 2016 11:22:38	-25.1

General Information

Serial Number 02509
 Model 831
 Firmware Version 2.301
 Filename 831_Data.003
 User GT
 Job Description Gallop Way Channelization Project
 Location West Portion of Channel - South of Home at 3092 Sierra Ave

Measurement Description

Start Time Wednesday, 2016 November 02 11:05:56
 Stop Time Wednesday, 2016 November 02 11:20:57
 Duration 00:15:00.5
 Run Time 00:15:00.5
 Pause 00:00:00.0
 Pre Calibration Wednesday, 2016 November 02 10:44:45
 Post Calibration None
 Calibration Deviation ---

Note

Approx 85 feet west of Sierra Ave CL and 20 feet north of Channel CL
 75F, 29.38 inHg, 23% Hu., 8 mph wind, clear sky

Overall Data

LAeq		57.6	dB
LASmax	2016 Nov 02 11:18:54	68.4	dB
LApeak (max)	2016 Nov 02 11:18:54	100.3	dB
LASmin	2016 Nov 02 11:19:33	53.6	dB
LCeq		73.7	dB
LAeq		57.6	dB
LCeq - LAeq		16.1	dB
LAIEq		59.9	dB
LAeq		57.6	dB
LAIEq - LAeq		2.3	dB
Ldn		57.6	dB
LDay 07:00-23:00		57.6	dB
LNight 23:00-07:00		---	dB
Lden		57.6	dB
LDay 07:00-19:00		57.6	dB
LEvening 19:00-23:00		---	dB
LNight 23:00-07:00		---	dB
LAE		87.1	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics

LAS5.00		60.1	dB
LAS10.00		59.2	dB
LAS33.30		57.7	dB
LAS50.00		57.0	dB
LAS66.60		56.4	dB
LAS90.00		55.4	dB
LAS > 65.0 dB (Exceedence Counts / Duration)		1 / 1.6	s
LAS > 85.0 dB (Exceedence Counts / Duration)		0 / 0.0	s
LApeak > 135.0 dB (Exceedence Counts / Duration)		0 / 0.0	s
LApeak > 137.0 dB (Exceedence Counts / Duration)		0 / 0.0	s
LApeak > 140.0 dB (Exceedence Counts / Duration)		0 / 0.0	s

Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	Bin Max	
Gain	+0	dB
Under Range Limit	26.1	dB
Under Range Peak	75.2	dB
Noise Floor	16.9	dB
Overload	142.7	dB

1/1 Spectra

Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	83.4	78.0	71.4	65.7	59.0	54.1	53.4	54.7	48.4	43.4	41.3	42.6
LZSmax	99.4	94.7	86.0	79.7	68.3	63.7	61.9	61.7	60.9	61.4	56.0	48.1
LZSmin	58.0	58.2	57.9	57.5	51.9	48.7	47.9	51.0	43.7	37.0	38.9	42.3

1/3 Spectra

Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	79.9	78.4	77.1	75.1	72.9	70.8	68.6	66.3	63.9	62.1	61.1	58.9
LZSmax	95.1	95.1	98.0	91.8	89.5	86.2	84.1	80.1	78.8	77.1	74.9	70.6
LZSmin	52.3	50.2	48.5	50.9	54.7	52.1	53.5	51.7	52.0	41.2	50.7	48.8
Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	56.2	53.6	51.2	49.9	49.5	48.5	48.1	48.6	49.1	50.6	50.5	48.5
LZSmax	67.7	64.6	61.8	62.3	60.2	58.0	56.2	57.7	59.5	59.0	56.1	60.6
LZSmin	47.2	46.9	42.0	44.0	43.3	42.8	43.1	43.3	45.1	46.5	46.5	43.2
Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	45.8	42.9	40.4	39.3	38.9	37.4	36.8	36.4	36.3	36.8	37.5	39.1
LZSmax	55.9	56.1	55.3	55.7	59.5	54.1	53.5	52.1	46.0	45.3	43.1	42.5
LZSmin	41.2	37.9	34.3	32.2	31.8	32.2	33.0	33.5	35.2	36.2	37.2	38.5

Calibration History

Preamp	Date	dB re. 1V/Pa
PRM831	02 Nov 2016 10:44:45	-25.2
PRM831	22 Sep 2016 15:49:59	-26.5
PRM831	24 Aug 2016 19:03:10	-26.1
PRM831	26 Jul 2016 10:53:46	-26.0
PRM831	26 Jul 2016 09:33:01	-26.4
PRM831	26 Jul 2016 07:41:35	-25.1
PRM831	25 Jul 2016 14:18:53	-26.4
PRM831	25 Jul 2016 12:49:23	-25.2
PRM831	25 Jul 2016 09:43:52	-24.8
PRM831	25 Jul 2016 07:24:48	-25.6
PRM831	22 Jul 2016 11:22:38	-25.1

General Information

Serial Number 02509
 Model 831
 Firmware Version 2.301
 Filename 831_Data.004
 User GT
 Job Description Gallop Way Channelization Project
 Location East Portion of Channel - Front yard of 3100 Valley View Ave

Measurement Description

Start Time Wednesday, 2016 November 02 11:25:05
 Stop Time Wednesday, 2016 November 02 11:40:05
 Duration 00:15:00.5
 Run Time 00:15:00.5
 Pause 00:00:00.0
 Pre Calibration Wednesday, 2016 November 02 10:44:45
 Post Calibration None
 Calibration Deviation ---

Note

Approx 75 feet SW of Valley View Ave CL and 30 feet north of Channel CL
 75F, 29.38 inHg, 23% Hu., 8 mph wind, clear sky

Overall Data

L _A eq		53.4	dB
L _A S _{max}	2016 Nov 02 11:38:41	63.2	dB
L _A peak (max)	2016 Nov 02 11:38:41	80.2	dB
L _A S _{min}	2016 Nov 02 11:32:15	46.4	dB
L _C eq		67.6	dB
L _A eq		53.4	dB
L _C eq - L _A eq		14.2	dB
L _A I _{eq}		54.7	dB
L _A eq		53.4	dB
L _A I _{eq} - L _A eq		1.3	dB
L _{dn}		53.4	dB
L _{Day} 07:00-23:00		53.4	dB
L _{Night} 23:00-07:00		---	dB
L _{den}		53.4	dB
L _{Day} 07:00-19:00		53.4	dB
L _{Evening} 19:00-23:00		---	dB
L _{Night} 23:00-07:00		---	dB
L _A E		82.9	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics

L _A S _{5.00}	58.2	dB _A
L _A S _{10.00}	56.8	dB _A
L _A S _{33.30}	53.3	dB _A
L _A S _{50.00}	51.3	dB _A
L _A S _{66.60}	49.7	dB _A
L _A S _{90.00}	48.0	dB _A
L _A S > 65.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
L _A S > 85.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
L _A peak > 135.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
L _A peak > 137.0 dB (Exceedence Counts / Duration)	0 / 0.0	s
L _A peak > 140.0 dB (Exceedence Counts / Duration)	0 / 0.0	s

Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Normal	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	Bin Max	
Gain	+0	dB
Under Range Limit	26.1	dB
Under Range Peak	75.2	dB
Noise Floor	16.9	dB
Overload	142.7	dB

1/1 Spectra

Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
L _Z eq	76.8	71.4	63.8	60.2	57.4	53.3	51.6	49.0	42.8	40.3	39.7	42.5
L _Z S _{max}	91.9	84.8	78.2	73.5	70.0	64.9	64.5	56.8	50.3	46.7	42.4	42.6
L _Z S _{min}	52.2	52.3	49.0	50.8	47.7	43.1	42.8	42.7	36.2	36.0	39.0	42.0

1/3 Spectra

Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	73.6	71.9	70.2	68.0	66.0	65.5	60.4	58.1	58.1	55.1	55.9	55.1
LZSmax	88.5	86.5	86.3	83.4	80.6	79.4	75.8	73.3	73.4	70.6	72.7	65.1
LZSmin	44.3	44.1	44.7	45.5	46.3	46.4	44.6	43.1	43.3	45.2	45.2	42.9
Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	54.5	51.6	50.3	49.9	47.6	47.8	47.4	46.9	46.1	45.7	44.3	41.7
LZSmax	68.4	67.3	61.6	62.5	59.1	60.5	61.5	60.8	57.9	55.2	51.3	50.2
LZSmin	44.2	41.8	40.6	39.2	38.0	37.5	35.8	37.4	38.0	39.3	37.9	35.6
Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	39.3	37.6	36.7	36.2	35.4	34.7	34.4	34.7	35.6	36.5	37.4	39.1
LZSmax	47.9	44.7	43.7	43.0	42.1	40.2	38.7	37.4	36.9	36.8	37.6	39.3
LZSmin	32.8	30.1	29.8	30.3	31.0	31.9	32.8	33.6	35.2	35.7	36.7	38.9

Calibration History

Preamp	Date	dB re. 1V/Pa
PRM831	02 Nov 2016 10:44:45	-25.2
PRM831	22 Sep 2016 15:49:59	-26.5
PRM831	24 Aug 2016 19:03:10	-26.1
PRM831	26 Jul 2016 10:53:46	-26.0
PRM831	26 Jul 2016 09:33:01	-26.4
PRM831	26 Jul 2016 07:41:35	-25.1
PRM831	25 Jul 2016 14:18:53	-26.4
PRM831	25 Jul 2016 12:49:23	-25.2
PRM831	25 Jul 2016 09:43:52	-24.8
PRM831	25 Jul 2016 07:24:48	-25.6
PRM831	22 Jul 2016 11:22:38	-25.1

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 11/4/2016

Case Description: Gallop Way Channel - Excavation & Grading of Channel

--- Receptor #1 ---

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Nearest Home	Residential	55	55	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Excavator	No	40		80.7	25	0
Excavator	No	40		80.7	75	0
Dozer	No	40		81.7	125	0
Dozer	No	40		81.7	175	0
Front End Loader	No	40		79.1	225	0
Front End Loader	No	40		79.1	275	0

Equipment	Calculated (dBA)		Results			
	*Lmax	Leq	Day Lmax	Leq	Noise Limits (dBA) Evening	
					Lmax	Leq
Excavator	86.7	82.8	N/A	N/A	N/A	N/A
Excavator	77.2	73.2	N/A	N/A	N/A	N/A
Dozer	73.7	69.7	N/A	N/A	N/A	N/A
Dozer	70.8	66.8	N/A	N/A	N/A	N/A
Front End Loader	66.0	62.1	N/A	N/A	N/A	N/A
Front End Loader		64.3	60.3	N/A	N/A	N/A
Total		87	84	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 11/4/2016

Case Description: Gallop Way Channel - Channel Construction

		Baselines (dBA)		---- Receptor #1 ----			
Description	Land Use	Daytime	Evening	Night			
Nearest Home	Residential		55	55	55		
		Calculated (dBA)		Results			
		*Lmax	Leq	Day	Noise Limits (dBA)		
Equipment	Impact Device			Lmax	Leq	Evening	Leq
Crane	No	86.60	78.60	N/A	N/A	N/A	N/A
Concrete Pump Truck	No	77.90	70.90	N/A	N/A	N/A	N/A
Excavator	No	72.80	68.80	N/A	N/A	N/A	N/A
		87	80	N/A	N/A	N/A	N/A
Total							

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 11/4/2016
 Case Descriptio Gallop Way Channel - Catch Basin Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Nearest Home	Residential	55	55	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)	
			Spec Lmax (dBA)	Actual Lmax (dBA)			
Crane	No	16			80.6	30	0
Dump Truck	No	40			76.5	80	0
All Other Equipment > 5 HP	No	50		85		130	0
All Other Equipment > 5 HP	No	50		85		180	0
Tractor	No	40		84		230	0
Concrete Pump Truck	No	20			81.4	280	0

Equipment	Calculated (dBA)			Results			Noise Limits (dBA)	
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq		
Crane	85	77	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	72.40	68.40	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	76.70	73.70	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	73.90	70.90	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	70.70	66.80	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	66.40	59.40	N/A	N/A	N/A	N/A	N/A	N/A
Total	85	80	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 11/4/2016

Case Description: Gallop Way Channel - Final Grading and Road Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)			
		Daytime	Evening	Night	
Nearest Home	Residential		55	55	55

Description	Impact Device	Usage(%)	Equipment	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)			
Grader	No	40		85	15	0
Front End Loader	No	40			79.1	65
Dump Truck	No	40			76.5	115

Equipment	Calculated (dBA)			Results			Noise Limits (dBA)		
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq			
Grader	95.5	91.5	N/A	N/A	N/A	N/A			
Front End Loader	76.8	72.9	N/A	N/A	N/A	N/A			
Dump Truck	69.2	65.2	N/A	N/A	N/A	N/A			
Total	96	92	N/A	N/A	N/A	N/A			

*Calculated Lmax is the Loudest value

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 11/4/2016
 Case Description: Gallop Way Channel - Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Nearest Home	Residential	55	55	55

Description	Impact Device	Usage(%)	Equipment Spec	Actual	Receptor Distance	Estimated Shielding
			Lmax (dBA)	Lmax (dBA)	(feet)	(dBA)
Paver	No	50		77.2	30	0
Roller	No	20		80	80	0

Equipment	Calculated (dBA)		Results			
	*Lmax	Leq	Day		Noise Limits (dBA)	
			Lmax	Leq	Evening Lmax	Leq
Paver	81.7	78.6	N/A	N/A	N/A	N/A
Roller	75.9	68.9	N/A	N/A	N/A	N/A
Total	82	79	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Appendix C

Response to Comments

North Norco Channel Line NB Stage 3 Project Response to Comments

The Draft CEQA Initial Study for the North Norco Channel Line NB, Stage 3 Project was circulated for public review and comment from April 27, 2017 through May 29, 2017. During the public review period, the Riverside County Flood Control and Water Conservation District (RCFC&WCD) received three comment letters:

- Southern California Edison Company – May 1, 2017
- AT&T – May 26, 2017
- Governor's Office of Planning and Research – May 30, 2017

These comment letters are provided below, followed by responses to the individual letters.

From: Evan Risorto <Evan.Risorto@sce.com>
Sent: Monday, May 1, 2017 10:55 AM
To: Wong, Mike
Subject: SCE Project Submittal NORCO CHANNEL PHASE 3
Attachments: Customer Forms v2 1 Evan R (003).pdf

Hello Mike,

I have received a package for a project titled NORCO CHANNEL PHASE 3. Attached are some SCE documents I need submitted in order to begin the process. Please let me know if you have any questions regarding this submittal.

R/

Evan Risorto
Planner - SCE Ontario
SWEC Rep – Metro East



1351 E Francis
Ontario, CA 91761
909-930-8513



In Regards to: North Norco Channel Line Stg 3

Dear Mike Wong,

My name is Evan Risorto and I will be the Service Planner for your project. My job is to coordinate the design and installation of the electrical system to serve your new project. I am committed to completing your project in a timely and economical manner, and to meet your design and construction time frames. I intend to communicate with you on a regular basis. If you need to contact me for any reason you may do so via any of the following methods:

Office: (909) 930-8513

Cellular: (909) 660-0691

E-mail: Evan.Risorto@sce.com

I have indicated below the plans and information necessary to proceed with the electrical design for your project. Please provide me with the following information at your earliest convenience:

Item	Qty	Needed Plans	Item	Qty	Needed Information
<input checked="" type="checkbox"/>	1	Attached Customer / Project Information Sheet	<input checked="" type="checkbox"/>	1	Assessor Parcel Map
<input checked="" type="checkbox"/>	2	Site/Plot (scaled if available)	<input checked="" type="checkbox"/>	1	Copy of Grant Deed
<input checked="" type="checkbox"/>	2	Street Improvement	<input checked="" type="checkbox"/>	2	Recorded Tract Maps (all pages)
<input checked="" type="checkbox"/>	1	Grading & Elevation	<input checked="" type="checkbox"/>	1	Attached Design Option Letter (Signed)
<input checked="" type="checkbox"/>	1	Sewer & Storm Drain	<input type="checkbox"/>	1	Attached Installation Option Letters (Signed)
<input checked="" type="checkbox"/>	1	Load Schedules and Panel Drawings	<input checked="" type="checkbox"/>	1	Attached Street Light Authorization Letter (Signed)
<input checked="" type="checkbox"/>	1	Landscape, Sprinkler, Pedestal Locations	<input checked="" type="checkbox"/>	1	Address Sequence List
<input checked="" type="checkbox"/>	1	Street Light Plan	<input checked="" type="checkbox"/>	1	Digital File AutoCAD v9 or earlier

Once I receive this information I will provide you with a schedule for completion of the electrical design and installation of your project.

I would like to thank you for allowing Southern California Edison Company to assist you with your electrical needs.

Sincerely,

Evan Risorto
 Service Planner
 1351 E. Francis St.
 Ontario, Ca., 91761



SOUTHERN CALIFORNIA
EDISON[®]

An EDISON INTERNATIONAL[®] Company

Customer/Project Information Sheet

Date Received by SCE: _____

Individual or Business Name:

(Customer / Developer – Tract DBA or LLC)

Address:		Email Address:	
City:	State:	Zip Code:	
Attn:		Phone No:	
Legal Contact:		Phone No:	
<small>(Individual responsible for signing contracts, paying fees and receiving potential refunds)</small>			
Address:		Email Address:	
City:	State:	Zip Code:	
Primary Field / Site Superintendent / Job Contact:			
Relationship to Project:		Phone No:	
E-mail Address:		FAX No:	
Project Address:			
City:		State:	Zip Code:
TG Map # or GPS		Major Cross Street:	

Detailed Project Information

Residential: <input type="checkbox"/>	Commercial: <input type="checkbox"/>	Industrial: <input type="checkbox"/>	Agricultural: <input type="checkbox"/>
Overhead: <input type="checkbox"/>	Underground: <input type="checkbox"/>	Tract:	Lot(s):
Temporary Service Required: Yes <input type="checkbox"/> No <input type="checkbox"/>		Approximate date you would like the job completed and energized:	
Approximate start work date for SCE crews:		Your Construction Start Date:	
Is this project eligible for FHWA, FTA or FRA funding under the Buy America program: Yes <input type="checkbox"/> No <input type="checkbox"/>			
Scope of Project:			
Solar or Generation Equipment to be installed (If yes, please attach additional descriptions/specifications): <input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Vehicle: <input type="checkbox"/> Charge Station <input type="checkbox"/> Plug-In Electric Vehicle (PEV)			
Panel Size (amps):		Service Voltage/Phase:	
Total Tons of A/C:	Total # of A/C Units:	Largest A/C Unit (tons):	
Total HP of Pumps:	Total # of Pump Units:	Largest Pump (HP):	
Installing Gas or Electric:	Heater:	Water Heater:	Range: <input type="checkbox"/>
Square Footage of Buildings (if multiple buildings give all footages):			
<small>Homes over 5000 sq ft larger lots require a Load Schedule. Please contact your electrician for assistance.</small>			

**APPLICANT DESIGN OPTION FOR
DISTRIBUTION AND/OR SERVICE EXTENSIONS
LETTER OF AUTHORIZATION**

TO SOUTHERN CALIFORNIA EDISON COMPANY (SCE)

Applicant understands that for facilities designed in accordance with SCE's Rules 13, 15, and/or 16, the Applicant can elect:

- Option (1) SCE to design the distribution and/or service extension; or
- Option (2) A Competitive Bidding Procedure for the distribution and/or service extension design.

Under **Option (1)** above, SCE completes the project design. SCE's design costs are included in the total project cost to serve subject to refund / allowance. Under **Option (2)** above, Competitive Bidding, Applicant shall receive a bid amount from SCE and secure Competitive Bids from Qualified Designers for the *design* of the distribution and/or service extension. The SCE bid amount provided will be used as the job-specific cost estimate for design services. Either SCE or a Qualified Designer can design the distribution line and/or service extension under Option (2). The Applicant should have a thorough understanding of the Applicant Design Terms and Conditions prior to choosing Option (2) – Competitive Bid. Copies are available upon request.

If Applicant elects SCE to design the distribution and/or service extension and then later secures a third-party Qualified Designer under Option (2) Competitive Bidding, Applicant shall pay to SCE any and all costs incurred by SCE for design work already performed as a result of Applicant originally requesting SCE's design.

Regardless of the design option chosen, all speculative projects are subject to the advance collection of engineering fees.

Applicant understands the above Options and hereby selects the following Option:

- Option (1) Design by SCE
- Option (2) Competitive Bidding for Applicant Design

The elected Option is for the distribution line and/or service extension to be located at and/or described as follows:

Applicant acknowledges the option selected above and understands that by signing below, additional charges may apply if SCE incurs interim design costs as a result of Applicant first electing Option (1) and subsequently securing a third-party Qualified Designer and electing Option (2).

Applicant (Print or Type)	Title (Print or Type)
Signature	Date

Southern California Edison CAD File Requirements

To our valued customers:

SCE employees develop project base maps from digital files supplied by our customers. The process of reviewing and performing clean-up of these files takes time and effort, and directly impacts our ability to turn around a product to our customers in a reasonable time frame.

In support of our commitment to continuous improvement, SCE has established a set of requirements for digital file submission. It is the customer's responsibility to submit files that comply with these requirements and to ensure the files provided contain the most accurate and current information available.

The attached requirements list identifies the layer name and color to use for each entity within the submitted CAD file. SCE requires all related files for a single project be submitted as one comprehensive file. All projects must be saved in AutoCad 2009 or earlier.

Submitted files that do not meet the listed requirements or that contain cross-referenced drawings (XREF's) are subject to rejection.

Thank you for your efforts in assuring the information provided meets the requirements included.

STANDARD DIGITAL FILE REQUIREMENTS:

Drawings submitted must be provided in a single file and per the AutoCAD standards listed in the AutoCad File Requirements section of this document.

The following information, if available, must be displayed on separate layers:

*Required layer name for the item per Table 1-1 is enclosed in brackets.

- Street Right Of Way lines [RW]
- Property Lines, Tract Boundaries, Assessment District, Easements, and Boundary lines for the city, county, etc. [BOUNDARY]
- Street names – specify “private street, government entities such as” if applicable; specify governing entity when applicable (County Road, State Highway, etc) [TEXT-STREET]
- Street width dimensions [DIMENSIONS]
- Street Centerline and Centerline Stationing on all streets. Centerline Stationing should not be broken and should show reference stationing at street intersection. [CL]
Note: Wet utilities stationing is not required.
- Lot, Tract or Parcel numbering [TEXT-LOTS]
- Existing SCE Underground structures and existing OH poles [ELECTRIC]
- Existing SCE Underground conduits [COND-EX]
- Existing SCE Overhead Conductors [OH-EX]
- Building Outlines on separate layer – file must show exterior walls, doors, and windows only (no interior walls) [BUILD]
- Building Numbers where applicable (i.e. Apartments and Commercial) [BUILD]
Note: Also show Electrical Room when panel is located inside the building as well as the preferred structure placement
- Meter Locations [BUILD]
- Driveways [DWY]
- Sidewalks [SW]
- Walkways [WALK]
- Curbs [CURB]
- Gutter [GUTTER]
- Edge of pavement [EP]

- Driveway aprons [WALK]
- Walls – i.e. decorative walls, retaining walls, etc. [WALL]
- Fences or fence lines [FENCE]
- Trash enclosures where applicable. Trash enclosures are usually shown in areas such as apartments where they would affect structure and/or trench placement. [Per customer layer name]
- Landscape obstructions that need to be considered for proper electrical planning [LANDSCAPE]
- Vicinity Map [MISC]
- North Arrow and Scale Bar [DECAL]
- Detailed Street Cross Sections (if available) [DECAL]
- Topography [TOPO]
- Location of any future or proposed utility, building and/or structure locations labeled accordingly (if available.)

Location of all other utilities, etc. as applicable including proposed and existing:

- Catch basins (separate layer from storm drains) [SD]
- Storm drains (separate layer from catch basins) [CB]
- Cable TV [CATV]
- Fire Hydrants [FH]
- Gas [GAS]
- Manholes [MH]
- Oil [OIL]
- Railroad [RAILROAD]
- Sanitary Sewer [SEWER]
- Telephone [TEL]
- Traffic Control /Traffic Signal [TS]
- Water [WATER]
- Existing utility, service and street poles [per customer name]

NOTES:

1. Show utility lines eight inches (8") or wider to full width with size and material indicated.
2. Storm drain lines should be dashed, all others continuous.
3. Do not show utility lines smaller than 8" in full width, but size and material should be indicated.

The AutoCAD File Requirements are listed below as well as the Layer Descriptions for each layer. These requirements must be followed to ensure consistency with regard to digital files submitted by customers.

- No X-Refs or Nested X-Refs (External Referenced Drawings)

- Drawings **must** only be in a single file with entities separated by layers per Table 1-1
- Drawing Scale must be 1'-1' AutoCAD Engineering Unit (decimal), not Architectural scale
- No 3rd Party Software Entities such as Express Tools "Acad Proxy Entities"
(Note: Software provided with AutoCad but not supported by Autodesk)
- Images such as Bitmap, JPEG, PDF, etc., should be added using "Copy" from Microsoft Photo Editor and then a "PasteClip" into the active model drawing or an active viewport. That will ensure that the graphic is embedded in the drawing and not referenced to as the AutoCAD "Image" command does. Do not add images using the AutoCAD "Image" command.
- No duplicate base objects
- No "TextMask" due to potential plotter incompatibility.

Entities must be separated by layers per SCE AutoCad Layering Standard. However, for instances where a drawing is converted from Microstation to AutoCAD, a layer legend which indicates the firm's layer name and description may be provided in lieu of SCE's Layering Standard.

TABLE 1-1

Layer Descriptions	Layer Names (UPPERCASE)	Layer Color
Sheet setup & Title Block Border	BASE	7
Buildings	BUILD	131
Boundaries - City, County, etc.	BOUNDARY	10
Cable TV	CATV	157
Catch basin	CB	157
Center Line of Streets & Stationing	CL	1
SCE existing conduits	COND-EX	11
Curbs	CURB	10
Driveway (not including aprons)	DWY	221
Edison Decals	DECAL	7
Edison Decals	DECALS	157
Easement	EASEMENT	7
SCE underground structures or OH poles	ELECTRIC	11
Edge of Pavement	EP	10
Fence	FENCE	157
Fire Hydrant	FH	35
Gas Line	GAS	157
Gutter	Gutter	35
Hatching - Buildings, etc.	HATCH	131
Landscape	LANDSCAPE	157

Manhole	MH	157
Match lines	MATCHLINE	252
Oil Line	OIL	157
SCE existing overhead lines	OH-EX	11
Property line, Lot Lines	PL	2
Railroad	RR	7
Right-of-Way Lines	RW	2
Slope	SLOPE	157
Storm drain (Separate CB Lay)	SD	157
Sanitary Sewer	SEWER	157
Sidewalk & Driveway Aprons	SW	35
Telephone	TEL	157
Topography	TOPO	157
Traffic Signals	TS	157
Walkway & Driveway Aprons (SEPARATE)	WALK	35
Walls	WALL	5
Water	WATER	157
Misc. Vicinity Maps, Hatching, etc.	MISC	7
All other existing non-SCE conduits	APPROPRIATE LAYER	11
<u>TEXT RELATED</u>		
TEXT - STREET NAMES	TEXT-STREET	7
TEXT - Lot Numbers	TEXT-LOTS	7
Text - Misc.	TEXT	7
DIMENSIONING - AutoCAD related with DIM	DIMENSION	7

Response to Southern California Edison Company (SCE) letter dated May 1, 2017

The RCFC&WCD appreciates SCE's review of the Draft IS/MND. This SCE letter provides direction on the design and installation of new electrical systems. The long-term operation of the proposed North Norco Channel Line NB, Stage 3 project will not require electrical service from the Southern California Edison Company (SCE). Thus, the RCFC&WCD will not need to fill in the customer forms nor provide the information requested. With consideration of this comment letter, no changes to the significance determination of the IS/MND are required.



22311 Brookhurst Street Suite203
Huntington Beach Ca 92646

NO CONFLICT

May 26, 2017

County of Riverside
Flood Control & Water Conservation
Attn: Mike Wong
1955 Market St.
Riverside, CA 92501

Re: North Norco Channel Line NB Stage 3... Norco, CA

Dear Mr. Wong,

This is in response to your Inquiry Letter dated May 19, 2017, regarding the above referenced project. After reviewing your location maps, please be advised that AT&T Network Services (long distance) has no active facilities (Transcontinental Fiber Optics Lines) within the vicinity of this project.

Thank you for notifying AT&T of the pending project referenced above. Notification of future proposed work, performed in this vicinity should be directed to:

AT&T INQUIRIES
22311 Brookhurst Street, Suite 203
Huntington Beach, CA 92646
joef@forkertengineering.com

Should you have any questions or concerns regarding this project, please contact Mr. Joseph Forkert at (714) 963-7964 or me at your earliest convenience.

Please Note

AT&T Drawings are Proprietary Information Pursuant to Company instructions—This Office does not distribute drawings for Pre-Planning and Design Engineering purposes.

Please contact your local City, County, Utility Notification Center or AT&T on Site Plant Protection Workforce to identify AT&T facilities prior to contacting AT&T Engineering. If you are referred to our office because of a possible conflict with AT&T lines, we will confirm and provide you with the appropriate drawings and pertinent information required to avoid a conflict with AT&T lines prior to the start of your construction project.

Sincerely,

Joseph Forkert for
Tanya Hernandez
OSP Maintenance Engineer
(619) 200-7896

Response to AT&T Letter dated May 26, 2017

The RCFC&WCD appreciates AT&T's review of the Draft IS/MND. The comment letter acknowledges that there are no active AT&T facilities in the vicinity of this project. With consideration of this comment letter, no changes to the significance determination of the IS/MND are required.



EDMUND G. BROWN JR.
GOVERNOR

May 30, 2017

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX
DIRECTOR

RECEIVED
JUN 02 2017

Mike Wong
Riverside County Flood Control and Water Conservation
1995 Market Street
Riverside, CA 92501

RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

Subject: North Norco Channel Line NB, Stage 3 Project
SCH#: 2017041077

Dear Mike Wong:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on May 26, 2017, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

**Document Details Report
State Clearinghouse Data Base**

SCH# 2017041077
Project Title North Norco Channel Line NB, Stage 3 Project
Lead Agency Riverside County Flood Control and Water Conservation

Type MND Mitigated Negative Declaration
Description The Riverside County Flood Control and Water Conservation District proposes to replace an existing interim dirt-lined trapezoidal flood control channel with a concrete lined trapezoidal and rectangular channel, including concrete culverts, across Valley View Ave and Sierra Ave and an Armorflex, gabion, or rock lined invert at the western end where the line reconstructed on Sierra Ave, Fortuna Rd, Valley View Ave, and Gallop Lane.

Lead Agency Contact

Name Mike Wong
Agency Riverside County Flood Control and Water Conservation
Phone 951-955-1233 **Fax**
email
Address 1995 Market Street
City Riverside **State** CA **Zip** 92501

Project Location

County Riverside
City Norco
Region
Lat / Long 33° 55' 37" N / 117° 33' 11" W
Cross Streets Sierra Ave/Fortuna Rd and Valley View Ave/Man O War Dr
Parcel No. 127-040-049, 050, etc.
Township 3S **Range** 6W **Section** 7 **Base** SBM

Proximity to:

Highways I-15
Airports
Railways
Waterways North Norco Channel, Santa Ana River
Schools Sierra Vista ES
Land Use north norco channel line NB drainage channel/ag-low density/res ag

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Geologic/Seismic; Noise; Public Services; Recreation/Parks; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian; Landuse

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 6; Department of Conservation; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services, California; California Highway Patrol; Caltrans, District 8; State Water Resources Control Board, Division of Drinking Water, District 20; Regional Water Quality Control Board, Region 8; Native American Heritage Commission; State Lands Commission

Date Received 04/27/2017 **Start of Review** 04/27/2017 **End of Review** 05/26/2017

Response to Office of Planning and Research (OPR) Letter dated May 30, 2017

The RCFC&WCD appreciates the OPR letter, which notes that no State agencies submitted comments by the end of the IS/MND review period and acknowledges that the RCFC&WCD has complied with the review requirements pursuant to the California Environmental Quality Act. With consideration of this comment letter, no changes to the IS/MND are required.

MITIGATED NEGATIVE DECLARATION

State Clearinghouse Number: 2017041077	Contact Person: Randy Sheppeard	Telephone Number: (951) 955-1200 Email: rsheppea@rivco.org
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Lead Agency and Project Sponsor:
Riverside County Flood Control and Water Conservation District

Address: 1995 Market Street	City: Riverside	Zip: 92501
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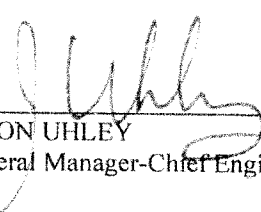
Project Title and Description:
North Norco Channel Line NB, Stage 3

The Riverside County Flood Control and Water Conservation District (District) proposes to replace an existing interim dirt-lined trapezoidal flood control channel with a concrete-lined trapezoidal and rectangular channel, including concrete culverts, across Valley View Avenue and Sierra Avenue and an Armorflex, gabion, or rock-lined invert at the western end where the Line NB channel ties into the North Norco Channel. Storm drain lines, inlets, and catch basins would also be constructed/reconstructed on Sierra Avenue, Fortuna Road, Valley View Avenue, and Gallop Lane. The existing channel is currently inadequate for the conveyance of ultimate condition flow rates, and the project would eliminate this deficiency. The project expands upon previously constructed Stages 1 and 2 to replace the current remaining dirt-lined channel and construct a larger concrete-lined channel that would accommodate the 100-year runoff flow from multiple local drainages within the City of Norco to address the City's drainage issues. The project would continue to direct storm water runoff that emanates from the hills located in the eastern portion of the City and areas north and south of the channel for conveyance to the North Norco Channel that ties into the Prado Dam Reservoir.

Project Location: The North Norco Channel Line NB is located in the City of Norco, south of Fifth Street, north of Fourth Street, east of the Interstate (I) 15 Freeway and the North Norco Channel, and west of the intersection of Half Circle Road and Gallop Lane. It ties to Line NA to the east (upstream) and to the North Norco Channel to the west (downstream). Improvements are also proposed to storm drain lines, inlets, and catch basins on Sierra Avenue, Fortuna Road, Valley View Avenue, and Gallop Lane. In addition, four parcels adjacent to the channel are proposed for use as temporary construction staging areas. The project site is located within Section 7, Township 3 South, Range 6 West of the San Bernardino Meridian.

Lead Agency Finding: The General Manager-Chief Engineer of the Riverside County Flood Control and Water Conservation District has made a finding that the proposed North Norco Channel Line NB, Stage 3 project will not have a significant adverse effect on the environment. An Initial Study supporting this finding is attached. This finding will become final upon adoption of this Mitigated Negative Declaration by the Board of Supervisors of the Riverside County Flood Control and Water Conservation District. Mitigation measures are as follows:

Refer to attached Mitigation Monitoring and Reporting Program.

Signature: 
JASON UHLEY
General Manager-Chief Engineer

Dated: 8-28-17

The Board of Supervisors of the Riverside County Flood Control and Water Conservation District, assembled in regular session on _____, 2017 has determined that the North Norco Channel Line NB, Stage 3 project will not have a significant adverse effect on the environment and has adopted this Mitigated Negative Declaration.

Signature: _____

KECIA HARPER-IHEM
Clerk of the Board

Dated: _____

Attachment

Copies to: 1) County Clerk
2) Flood Control

**RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
NORTH NORCO CHANNEL LINE NB,
STAGE 3**

MITIGATION MONITORING AND REPORTING PROGRAM

Issue	Potential Impact	Environmental Commitment, Avoidance, Minimization, and/or Mitigation Measures	Action	Implementation Responsibility	Governing Agency	Implementation Timing
Biological Resources	A substantial adverse effect on biological resources involved within a jurisdictional water feature	MM 1: Prior to initiation of construction activities, the District shall obtain all necessary permits from the Santa Ana Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) for impacts to jurisdictional resources. Mitigation for the loss of jurisdictional resources shall be negotiated with the resource agencies during the regulatory permitting process and shall ensure mitigation to compensate for permanent impacts on jurisdictional resources is equivalent or superior to the biological functions and values impacted by the project. Potential mitigation options may include, but are not limited to, payment of an in-lieu mitigation fee to a mitigation bank or regional riparian enhancement program (e.g., invasive plant or wildlife species removal).	The District shall obtain the necessary permits from Santa Ana RWQCB and CDFW and comply with the conditions of the permits.	RCFC&WCD	Santa Ana RWQCB and CDFW	Prior to construction

Issue	Potential Impact	Environmental Commitment, Avoidance, Minimization, and/or Mitigation Measures	Action	Implementation Responsibility	Governing Agency	Implementation Timing
Cultural Resources	Destroy a unique paleontological resource or site or unique geologic feature	<p>MM 2: To mitigate potential impacts to paleontological resources that may exist subsurface of the project area, the Project Paleontologist shall attend the pre-grade meeting to determine the level of monitoring required for the project in accordance with the following:</p> <ol style="list-style-type: none"> Monitoring shall be conducted during all grading and excavations deeper than one foot below current ground level in previously undisturbed ground by a qualified paleontological monitor. Paleontological monitors should be equipped to salvage fossils as they are unearthed, to avoid construction delays, and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. Monitors must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Monitoring may be reduced if the potentially fossiliferous units described herein are determined upon exposure and examination by qualified paleontological personnel to have low 	The District shall include this mitigation in the contractor specifications for the contractor to implement during construction.	Contractor	RCFC&WCD	During construction

Issue	Potential Impact	Environmental Commitment, Avoidance, Minimization, and/or Mitigation Measures	Action	Implementation Responsibility	Governing Agency	Implementation Timing
		<p>potential to contain fossil resources.</p> <p>2. Preparation of all recovered specimens shall be made to a point of identification and permanent preservation including washing of sediments to recover small invertebrates and vertebrates.</p> <p>3. Identification and curation of specimens into an established, accredited museum repository with permanent retrievable paleontological storage [e.g., Western Science Center, Hemet] shall be completed at the recommendation of the Project Paleontologist.</p> <p>4. A report of findings shall be prepared with an appended itemized inventory of specimens and submitted to the RCFC&WCD.</p>				

**RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
NORTH NORCO CHANNEL LINE NB,
STAGE 3**

MITIGATION MONITORING AND REPORTING PROGRAM

Issue	Potential Impact	Environmental Commitment, Avoidance, Minimization, and/or Mitigation Measures	Action	Implementation Responsibility	Governing Agency	Implementation Timing
Biological Resources	A substantial adverse effect on biological resources involved within a jurisdictional water feature	MM 1: Prior to initiation of construction activities, the District shall obtain all necessary permits from the Santa Ana Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) for impacts to jurisdictional resources. Mitigation for the loss of jurisdictional resources shall be negotiated with the resource agencies during the regulatory permitting process and shall ensure mitigation to compensate for permanent impacts on jurisdictional resources is equivalent or superior to the biological functions and values impacted by the project. Potential mitigation options may include, but are not limited to, payment of an in-lieu mitigation fee to a mitigation bank or regional riparian enhancement program (e.g., invasive plant or wildlife species removal).	The District shall obtain the necessary permits from Santa Ana RWQCB and CDFW and comply with the conditions of the permits.	RCFC&WCD	Santa Ana RWQCB and CDFW	Prior to construction

Issue	Potential Impact	Environmental Commitment, Avoidance, Minimization, and/or Mitigation Measures	Action	Implementation Responsibility	Governing Agency	Implementation Timing
Cultural Resources	Destroy a unique paleontological resource or site or unique geologic feature	<p>MM 2: To mitigate potential impacts to paleontological resources that may exist subsurface of the project area, the Project Paleontologist shall attend the pre-grade meeting to determine the level of monitoring required for the project in accordance with the following:</p> <ol style="list-style-type: none"> 1. Monitoring shall be conducted during all grading and excavations deeper than one foot below current ground level in previously undisturbed ground by a qualified paleontological monitor. Paleontological monitors should be equipped to salvage fossils as they are unearthed, to avoid construction delays, and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. Monitors must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Monitoring may be reduced if the potentially fossiliferous units described herein are determined upon exposure and examination by qualified paleontological personnel to have low 	The District shall include this mitigation in the contractor specifications for the contractor to implement during construction.	Contractor	RCFC&WCD	During construction

Issue	Potential Impact	Environmental Commitment, Avoidance, Minimization, and/or Mitigation Measures	Action	Implementation Responsibility	Governing Agency	Implementation Timing
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Notice of Determination

To: Office of Planning and Research
 P.O. Box 3044
 Sacramento, CA 95812-3044

**From: Riverside County Flood Control
 and Water Conservation District**
 1995 Market Street
 Riverside, CA 92501
 Contact: Randy Sheppard, 951.955.1306

Riverside County Clerk
 County of Riverside
 2724 Gateway Drive
 Riverside, CA 92507

Lead Agency Same as above

Subject: Filing of Notice of Determination in compliance with Public Resources Section 21152

State Clearinghouse Number: 2017041077

Project Title: North Norco Channel Line NB, Stage 3

Project Location

The project site is located in the city of Norco, Riverside County and is bounded to the north by Fifth Street, on the south by Fourth Street, on the east by Valley View Avenue, and to the west by North Norco Channel. The project is located in Township 3 South, Range West, Section 7 of the Corona North 7.5 Series Topographic Quadrangle maps. The latitude/longitude for the approximate project center is 33° 55' 36.17" N 117° 33' 09.46" W.

Project Description

The District proposes to construct, operate and maintain the North Norco Channel Line NB, Stage 3 Project (Project). The Project will replace the previously constructed earthen channel with a concrete-lined trapezoidal and rectangular channel that would convey the 100-year flow capacity. The channel would continue to convey stormwater runoff from the existing upstream Line NB and outlet into the existing concrete-lined North Norco Channel. A new concrete block system invert will be used for water quality purposes at the western end of the channel and just upstream of the North Norco Channel. In addition, existing concrete culverts will be reconstructed across Valley View Avenue and Sierra Avenue. Storm drain lines, inlets, and catch basins would also be constructed/reconstructed on Sierra Avenue, Fortuna Road, Valley View Avenue, and Gallop Lane. The project may also involve the acquisition of property easements and utility relocations.

Determination

This is to advise that the Riverside County Flood Control and Water Conservation District (Lead Agency) has approved and certified pursuant to the California Environmental Quality Act (CEQA) the above-described project on December 5, 2017 and has made the following determinations regarding the above-described project:

- 1) The Project will not have a significant effect on the environment.
- 2) A Mitigated Negative Declaration was prepared for this Project pursuant to the provisions of CEQA.
- 3) Mitigation measures were made a condition of the approval of the Project.
- 4) A Mitigation Monitoring Program was adopted for the Project.
- 5) A Statement of Overriding Considerations was adopted for this Project.
- 6) Findings were not made pursuant to the provisions of CEQA.

Public Access to Environmental Document

The Mitigated Negative Declaration is available to the General Public at the Office of the Clerk of the Board, County Administrative Center, 4080 Lemon Street, Riverside, CA 92501. The MND is also available at the Riverside County Flood Control and Water Conservation District office located at 1995 Market Street, Riverside, CA 92501.

 Signature (Public Agency)

 Title

 Date

 Date Received for Filing at OPR

Notice of Determination

To: Office of Planning and Research
P.O. Box 3044
Sacramento, CA 95812-3044

From: Riverside County Flood Control and Water Conservation District
1995 Market Street
Riverside, CA 92501
Contact: Randy Sheppard, 951.955.1306

Riverside County Clerk
County of Riverside
2724 Gateway Drive
Riverside, CA 92507

Lead Agency: Same as above

Mitigated Negative Declaration/Notice of Determination was routed to County Clerk for posting on...

Subject: Filing of Notice of Determination in compliance with Public Resources Code Section 21152

State Clearinghouse Number: 2017041077

Project Title: North Norco Channel Line NB, Stage 3

Project Location

The project site is located in the city of Norco, Riverside County and is bounded to the north by Fifth Street, on the south by Fourth Street, on the east by Valley View Avenue, and to the west by North Norco Channel. The project is located in Township 3 South, Range 6 West, Section 7 of the Corona North 7.5 Series Topographic Quadrangle maps. The latitude/longitude for the approximate project center is 33° 55' 36.17" N 117° 33' 09.46" W.

Project Description

The District proposes to construct, operate and maintain the North Norco Channel Line NB, Stage 3 Project (Project). The Project will replace the previously constructed earthen channel with a concrete-lined trapezoidal and rectangular channel that would convey the 100-year flow rate capacity. The channel would continue to convey stormwater runoff from the existing upstream Line NB and outlet into the existing concrete-lined North Norco Channel. A pervious concrete block system invert will be used for water quality purposes at the western end of the channel and just upstream of the North Norco Channel. In addition, existing concrete culverts will be reconstructed across Valley View Avenue and Sierra Avenue. Storm drain lines, inlets, and catch basins would also be constructed/reconstructed on Sierra Avenue, Fortuna Road, Valley View Avenue, and Gallop Lane. The project may also involve the acquisition of a property easement and utility relocations.


Determination

This is to advise that the Riverside County Flood Control and Water Conservation District (Lead Agency) has approved and certified, pursuant to the California Environmental Quality Act (CEQA), the above-described Project on December 5, 2017 and has made the following determinations regarding the above-described Project:

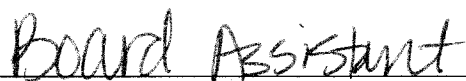
- 1) The Project will not have a significant effect on the environment.
- 2) A Mitigated Negative Declaration was prepared for this Project pursuant to the provisions of CEQA.
- 3) Mitigation measures were made a condition of the approval of the Project.
- 4) A Mitigation Monitoring Program was adopted for this Project.
- 5) A Statement of Overriding Considerations was not adopted for this Project.
- 6) Findings were not made pursuant to the provisions of CEQA.

Public Access to Environmental Document

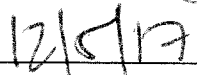
The Mitigated Negative Declaration is available to the General Public at the Office of the Clerk of the Board, County Administrative Center, 4080 Lemon Street, Riverside, CA 92501. The MND is also available at the Riverside County Flood Control and Water Conservation District office located at 1995 Market Street, Riverside, CA 92501.



Signature (Public Agency)



Title



Date

Date Received for Filing at OPR

11/17 11.2 11.2 11.2

RIVERSIDE COUNTY CLERK-RECORDER

AUTHORIZATION TO BILL

TO BE FILLED OUT BY SUBMITTING AGENCY

DATE: 10/23/2017 BUSINESS UNIT/AGENCY: FLOOD CONTROL - FCARC

ACCOUNTING STRING:

ACCOUNT: 526410 ✓ FUND: 25120 ✓

DEPT ID: 947420 ✓ PROGRAM: _____

AMOUNT: \$2,266.25 ✓

REF: CEQA CDFW filing Fees for North Norco Line NB, Stage 3 (222-44101-2-8-00145-03-30-0000-922)

THIS AUTHORIZES THE COUNTY CLERK & RECORDER TO ISSUE AN INVOICE FOR PAYMENT OF ALL DOCUMENTS INCLUDED.

NUMBER OF DOCUMENTS INCLUDED:

1

AUTHORIZED BY: Lorena Alandy Ext 51261 *msa 10/23/17*

PRESENTED BY: Carol Thompson Ext 52313

CONTACT: Lorena Alandy

TO BE FILLED OUT BY COUNTY CLERK

ACCEPTED BY: _____

DATE: _____

DOCUMENT NO(S)/INVOICE NO(S): _____



[Home \(/\)](#) | [Conservation \(https://www.wildlife.ca.gov/Conservation\)](https://www.wildlife.ca.gov/Conservation) | [CEQA \(https://www.wildlife.ca.gov/Conservation/CEQA\)](https://www.wildlife.ca.gov/Conservation/CEQA) | [Fees \(#\)](#)

[Login](#)

CEQA Environmental Document Filing Fees

CDFW imposes and collects a filing fee to defray the costs of managing and protecting California's vast fish and wildlife resources, including, but not limited to, consulting with other public agencies, reviewing environmental documents, recommending mitigation measures, and developing monitoring programs.

CEQA Document	Fees Effective	Fees Effective
	January 1, 2016	January 1, 2017
Negative Declaration (ND)	\$2,210.25	\$2,216.25
Mitigated Negative Declaration (MND)	\$2,210.25	\$2,216.25
Environmental Impact Report (EIR)	\$3,070.00	\$3,078.25
Environmental Document pursuant to a Certified Regulatory Program (CRP)*	\$1,043.75	\$1,046.50
County Clerk Processing Fee**	\$50.00	\$50.00

* CRPs include certain state agency regulatory programs as defined in section 21080.5 of the Public Resources Code and section 15251 of the CEQA Guidelines. Beginning July 1, 2013, CEQA/CRP Filing Fees will no longer apply to the filing of Notices of Decision or Determination for Forest Practice Rules and Timber Harvest Plans (Pub. Resources Code, § 4629.6, added by Stats. 2012, ch. 289, § 3).

** Additional county fees may apply. Please check with your county clerk's office for details.

Annual Fee Adjustments

CDFW is required to adjust the fees annually (Fish & G Code, § 713). The annual fee adjustments are based on changes in the Implicit Price Deflator for State and Local Government Purchases of Goods and Services, as published by the U.S. Department of Commerce. Annual filing fee adjustments are posted on CDFW's website prior to November 1 of the year before they become effective.

Payment of Fees

The project proponent is responsible for payment of the filing fee (Fish & G. Code, § 711.4). Filing Fees are due at the time a Notice of Determination is filed with the county clerk's office (local lead agency), or with the State Clearinghouse (state lead agency). Fees due for [Certified Regulatory Program \(https://www.wildlife.ca.gov/Conservation/CEQA/Procedures/Commission\)](https://www.wildlife.ca.gov/Conservation/CEQA/Procedures/Commission) notices are due to CDFW directly and before the respective Notice of Decision is filed with the Secretary for Natural Resources.

For more information on filing fees and No Effect Determinations, please refer to [California Code of Regulations, title 14, section 753.5 \(https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=14965&inline=1\)](https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=14965&inline=1).

Exemptions and No Effect Determinations

The CEQA filing fee will be waived if a project will have no effect (<https://www.wildlife.ca.gov/Conservation/CEQA/NED>) on fish and wildlife (Fish & G. Code, § 711.4, subd. (c)(2)(A)). Additionally, projects that are statutorily or categorically exempt from CEQA are also not subject to the filing fee and do not require a no effect determination (Cal. Code Regs., tit. 14, §§ 15260-15333; Fish & G. Code, § 711.4, subd. (d)(1)). Only CDFW staff is responsible for determining whether a project will qualify for a No Effect Determination and if the CEQA filing fee will be waived.

Instructions for County Clerks

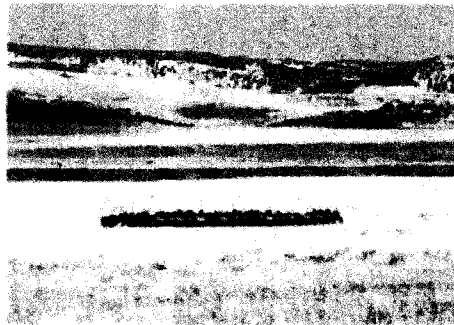
- County Clerk instructions for properly collecting and transmitting CEQA filing fees (<https://www.wildlife.ca.gov/Conservation/CEQA/Fees/County>).

Contact CDFW's CEQA Program: CEQA@wildlife.ca.gov (<mailto:CEQA@wildlife.ca.gov>)

NOTE: CDFW staff cannot make decisions or intercede on CEQA projects under the jurisdiction of another lead agency.
Please address project-specific comments to the project's lead agency.

Habitat Conservation Planning Branch (<https://www.wildlife.ca.gov/Explore/Organization/HCPB>)

1416 Ninth Street, 12th Floor, Sacramento, CA 95814
(916) 653-4875



CEQA Review

The California Environmental Quality Act (<https://www.wildlife.ca.gov/Conservation/CEQA/Purpose>)

External CEQA Project Review Procedures (<https://www.wildlife.ca.gov/Conservation/CEQA/External-Review>)

CEQA Filing Fees (<https://www.wildlife.ca.gov/Conservation/CEQA/Fees>)

[Process for No Effect Determinations \(https://www.wildlife.ca.gov/Conservation/CEQA/NED\)](https://www.wildlife.ca.gov/Conservation/CEQA/NED)

[Federal Project Review \(https://www.wildlife.ca.gov/Conservation/CEQA/Federal-Review\)](https://www.wildlife.ca.gov/Conservation/CEQA/Federal-Review)

[CDFW's Internal CEQA Procedures \(https://www.wildlife.ca.gov/Conservation/CEQA/Procedures\)](https://www.wildlife.ca.gov/Conservation/CEQA/Procedures)

[Other Types of CEQA Project Reviews \(https://www.wildlife.ca.gov/Conservation/CEQA/Other\)](https://www.wildlife.ca.gov/Conservation/CEQA/Other)

Related Links

- [2016 CEQA Statutes and Guidelines \(PDF\) \(https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=117044&inline\)](https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=117044&inline)
- [CEQA FAQ \(PDF\) \(https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=4009&inline\)](https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=4009&inline)
- [CEQA Public Notices \(https://www.wildlife.ca.gov/Notices\)](https://www.wildlife.ca.gov/Notices)
- [SB 1535 \(PDF\) \(https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=76455&inline\)](https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=76455&inline) Changes in filing fees
- [Fish and Game Code Section 711.4 and Section 713 \(https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=71768&inline\)](https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=71768&inline) Legal information on filing fees

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OFFICE OF THE
CLERK OF THE BOARD OF SUPERVISORS
1st FLOOR, COUNTY ADMINISTRATIVE CENTER
P.O. BOX 1147, 4080 LEMON STREET
RIVERSIDE, CA 92502-1147
PHONE: (951) 955-1060 FAX: (951) 955-1071

KECIA HARPER-IHEM
Clerk of the Board of Supervisors

KIMBERLY A. RECTOR
Assistant Clerk of the Board

November 9, 2017

THE PRESS ENTERPRISE
ATTN: LEGALS
P.O. BOX 792
RIVERSIDE, CA 92501

TEL: (951) 368-9229
E-MAIL: legals@pe.com

**RE: NOTICE OF PUBLIC HEARING: RESOLUTION NO. F2017-14 NORTH NORCO CHANNEL
LINE NB, STAGE 3**

To Whom It May Concern:

Attached is a copy for publication in your newspaper for **TWO (2) TIMES** on: **TUESDAYS: NOVEMBER 14 AND NOVEMBER 21, 2017.**

We require your affidavit of publication immediately upon completion of the last publication.

Your invoice must be submitted to this office, WITH TWO CLIPPINGS OF THE PUBLICATION.

NOTE: PLEASE COMPOSE THIS PUBLICATION INTO A SINGLE COLUMN FORMAT.

Thank you in advance for your assistance and expertise.

Sincerely,

Cecilia Gil

Board Assistant to:
KECIA HARPER-IHEM, CLERK OF THE BOARD

Gil, Cecilia

From: Legals <legals@pe.com>
Sent: Wednesday, November 8, 2017 4:19 PM
To: Gil, Cecilia
Subject: Re: FOR PUBLICATION: Res. F2017-14 North Norco Channel Line

Received for publication on 11/14 and 11/21. Proof with cost to follow.

Nick Eller

Thanksgiving Deadlines 2017

<u>Publishing Day</u>	<u>Deadline</u>
Thurs-Fri 11/23-11/24	Monday 11/20 10:30am
Sat-Mon 11/25-11/27	Tuesday 11/21 10:30am
Tues-Wed 11/28-11/29	Wednesday 11/22 10:30am

Legal Advertising Phone: **951-368-9222** / Fax: 951-368-9018 / E-mail: legals@pe.com

****Employees of The Press-Enterprise are not able to give legal advice of any kind****

The Press-Enterprise PE.com / La Prensa

On Wed, Nov 8, 2017 at 4:16 PM, Gil, Cecilia <CCGIL@rivco.org> wrote:

Notice of Public Hearing, for publication on 2 Tuesdays: Nov. 14 and 21, 2017. Please confirm. THANK YOU!

Cecilia Gil

Board Assistant

Clerk of the Board of Supervisors

4080 Lemon St., 1st Floor, Room 127

Riverside, CA 92501

(951) 955-8464 Mail Stop# 1010



NOTICE OF PUBLIC HEARING BEFORE THE BOARD OF SUPERVISORS OF THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT.

RESOLUTION NO. F2017-14

**SCHEDULING A PUBLIC HEARING DATE FOR
NORTH NORCO CHANNEL LINE NB, STAGE 3 PROJECT
IN ACCORDANCE WITH SECTION 18 OF THE
RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT ACT**

WHEREAS, Section 18 of the Riverside County Flood Control and Water Conservation District Act ("District Act") requires that the Riverside County Flood Control and Water Conservation District ("District") give public notice and conduct a public hearing prior to undertaking construction of District facilities; and

WHEREAS, this Board of Supervisors ("Board") intends to undertake a project within the city of Norco designated as the North Norco Channel Line NB, Stage 3 Project ("Project"); and

WHEREAS, the Project is generally bounded to the north by Fifth Street, on the south by Fourth Street, on the east by Valley View Avenue, and to the west by North Norco Channel; and

WHEREAS, the Project consists of replacing the previously constructed earthen channel with a concrete-lined trapezoidal and rectangular channel in order to increase the capacity to convey the 100-year flow rate. The channel would continue to convey stormwater runoff from the existing upstream Line NB and outlet into the existing concrete-lined North Norco Channel. A pervious concrete block system invert will be used for water quality purposes at the western end of the channel and just upstream of the North Norco Channel. In addition, existing concrete culverts will be reconstructed across Valley View Avenue and Sierra Avenue. Storm drain lines, inlets, and catch basins would also be constructed/reconstructed on Sierra Avenue, Fortuna Road, Valley View Avenue, and Gallop Lane; and

WHEREAS, the Section 18 Map dated August 2017, bearing the name and showing the general location (attached hereto as Attachment "A"); and typical cross sections (attached hereto as Attachment "B"), of the Project, are on file with the Clerk of the Board; and

WHEREAS, the engineering cost estimate of the Project, titled "Engineer's Statement" (attached hereto as Attachment "C"), is on file with the Clerk of the Board; and

WHEREAS, in accordance with the California Environmental Quality Act ("CEQA"), the District has prepared an Initial Study which demonstrates that, with the incorporation of required mitigation, the Project will not have a significant effect on the environment. Therefore, a Mitigated Negative Declaration ("MND") is proposed; and

WHEREAS, pursuant to CEQA, the Notice of Intent to Adopt an MND, the Initial Study, the Mitigation Monitoring and Reporting Plan ("MMRP") and the MND (SCH No. 2017041077) were made available for a 30-day public review period from April 27, 2017 to May 29, 2017; and

WHEREAS, on December 5, 2017, the date of the Section 18 Public Hearing, the Board will consider the MND under Resolution No. F2017-15; and

WHEREAS, the Section 18 Map and the Engineer's Statement for the Project are posted on the District's website at <http://rcflood.org> under the CEQA/Section 18 tab and may be inspected at the District's office located at 1995 Market Street, Riverside, California 92501 or at the Norco Public Library located at 3240 Hamner Avenue, Suite 101B, Norco, California 92860; and

WHEREAS, pursuant to Section 18 of the District Act, prior to making a decision on the Project, this Board will consider all written and oral comments; and

WHEREAS, pursuant to Section 18 of the District Act, any person wishing to comment on the Project may do so in writing between the date of this notice and the public hearing, or may appear and be heard at the time and place noted below.

NOW, THEREFORE, BE IT RESOLVED, DETERMINED AND ORDERED by the Board of Supervisors of the Riverside County Flood Control and Water Conservation District in regular session assembled on September 26, 2017 that:

1. A public hearing in accordance with Section 18 of the District Act to approve the Project will be held on **December 5, 2017 at 9:00 a.m.** or as soon as possible thereafter, at the meeting room of this Board, 1st Floor, County Administrative Center, 4080 Lemon Street, Riverside, California 92501, at which time, all public comments shall be heard.

2. The District shall cause a copy of this Resolution and copies of the Section 18 Map and Engineer's Statement to be posted at least 21 days before said hearing at the Norco Public Library 3240 Hamner Avenue, Suite 101B, Norco, California 92860.

3. The District shall cause a copy of this Resolution and copies of the Section 18 Map and Engineer's Statement to be posted at least 21 days before said hearing at the Riverside County Flood Control and Water Conservation District located at 1995 Market Street, Riverside, California 92501.

4. The District shall cause a copy of this Resolution and copies of the Section 18 Map and Engineer's Statement to be posted at least 21 days before said hearing at the Riverside County Clerk and Recorder's Office, 2724 Gateway Drive, Riverside, California 92507.

5. The Clerk of this Board is directed to cause a copy of this Resolution to be published twice, once at least 21 days before said hearing and once 7 days following the initial publication, in a newspaper of general circulation in accordance with Section 18 of the District Act.

ROLL CALL:

Ayes: Jeffries, Tavaglione, Washington, Perez and Ashley

Nays: None

Absent: None

The foregoing is certified to be a true copy of a resolution duly adopted by said Board of Supervisors on September 26, 2017.

KECIA HARPER-IHEM, Clerk of said Board

By: Cecilia Gil, Board Assistant

Any person affected by the above matter(s) may submit written comments to the Clerk of the Board before the public hearing or may appear and be heard in support of or opposition to the project at the time of the hearing. If you challenge the above item(s) in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence, to the Board of Supervisors at, or prior to, the public hearing.

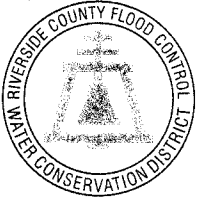
Alternative formats available upon request to individuals with disabilities. If you require reasonable accommodation, please contact Lisa Wagner at (951) 955-1063, at least 72 hours prior to the hearing.

Please send all written correspondence to: Clerk of the Board, 4080 Lemon Street, 1st Floor, Post Office Box 1147, Riverside, CA 92502-1147.

Dated: November 9, 2017

Kecia Harper-Ihem, Clerk of the Board

By: Cecilia Gil, Board Assistant



MEMORANDUM

RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

September 14, 2017

TO: Kecia Harper-Ihem, Clerk of the Board

FROM: Beth DeHayes, Executive Assistant II

BD

RE: September 26, 2017 Agenda

11-1 MT 4994 FLOOD CONTROL DISTRICT: Adopt Resolution No. F2017-14 and Schedule a Public Hearing for the North Norco Channel Line NB, Stage 3 Project Pursuant to Section 18 of the District Act, Project No. 2-0-00145-03 [2nd District] [\$0] CLERK TO ADVERTISE

With regard to MT 4994, I would normally have attached Resolution No. F2017-14 for your execution and return to the District, however, County Counsel has informed us that they will be forwarding the hard copy to your office from now on. Please let me know if this is not the correct procedure and I will forward a copy expeditiously.

We plan to continue to forward agreements for your execution until we hear otherwise.

If you have any questions, please contact me at 51292 or badehayes@rivco.org. I appreciate your assistance. Thank you.

P8/50012

SUBMITTAL TO THE FLOOD CONTROL AND
WATER CONSERVATION DISTRICT
BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA



ITEM
11.1
(ID # 4994)

MEETING DATE:
Tuesday, September 26, 2017

FROM : FLOOD CONTROL DISTRICT:

SUBJECT: FLOOD CONTROL DISTRICT: Adopt Resolution No. F2017-14 and Schedule a Public Hearing for the North Norco Channel Line NB, Stage 3 Project Pursuant to Section 18 of the District Act, Project No. 2-0-00145-03, 2nd District [\$0] CLERK TO ADVERTISE

RECOMMENDED MOTION: That the Board of Supervisors:

1. Adopt Resolution No. F2017-14, which sets December 5, 2017 as the date for a public hearing concerning the approval of the above-referenced project in accordance with Section 18 of the Riverside County Flood Control and Water Conservation District Act ("District Act"); and
2. Direct the Clerk of the Board to advertise and post said notice of public hearing to approve the project in accordance with Section 18 of the District Act.

ACTION:

Handwritten signature of Jason Uhley.

Jason Uhley

9/14/2017

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Ashley, seconded by Supervisor Washington and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended, and is set for public hearing Tuesday, December 5, 2017 at 9:00 a.m. or as soon as possible thereafter.

Ayes: Jeffries, Tavaglione, Washington, Perez and Ashley
Nays: None
Absent: None
Date: September 26, 2017
xc: Flood, COB

Kecia Harper-Ihem
Clerk of the Board
By: Deputy

**SUBMITTAL TO THE FLOOD CONTROL AND WATER CONSERVATION DISTRICT BOARD
OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	\$0	\$0	\$0	\$0
NET DISTRICT COST	\$0	\$0	\$0	\$0
			Budget Adjustment: N/A	
			For Fiscal Year: N/A	

C.E.O. RECOMMENDATION: Approved

BACKGROUND:

Summary

Section 18 of the District Act requires the Board of Supervisors to hold a public hearing for the purpose of considering all comments regarding any proposed facilities before authorizing the construction of such facilities.

The District proposes to replace the previously constructed earthen channel with a concrete-lined trapezoidal and rectangular channel that would convey the 100-year flow rate. The channel would continue to convey storm water runoff from the existing upstream Line NB and outlet into the existing concrete-lined North Norco Channel. A pervious concrete block system invert will be used for water quality purposes at the western end of the channel and just upstream of the North Norco Channel. In addition, existing concrete culverts will be reconstructed across Valley View Avenue and Sierra Avenue. Storm drain lines, inlets, and catch basins would also be constructed/reconstructed on Sierra Avenue, Fortuna Road, Valley View Avenue, and Gallop Lane.

In accordance with the California Environmental Quality Act, the District prepared and made available for a 30-day public review period an Initial Study, which analyzes potential impacts the project may have on the environment, a Mitigation Monitoring and Reporting Plan ("MMRP"), a Notice of Intent to Adopt a Mitigated Negative Declaration ("MND") and an MND. The result of the Initial Study shows this project will not significantly impact the environment and an MND is proposed. On December 5, 2017, the date of the Section 18 public hearing, the Board will also consider the MND under Resolution No. F2017-15.

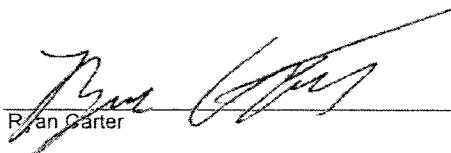
Impact on Residents and Businesses

Improved flood protection in the project vicinity.

ATTACHMENTS:

1. Resolution No. F2017-14

SUBMITTAL TO THE FLOOD CONTROL AND WATER CONSERVATION DISTRICT BOARD
OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA


Ryan Carter

9/19/2017


Gregory V. Priarios, Director County Counsel

9/7/2017