

SWPPP AMENDMENT LOG

Project Name: Santa Ana Automation Yard

Location: 1325 S. Grand Avenue, Santa Ana, CA 92705

Santa Ana RWQCB (8) WDID No#: 8 30C395766

Amendment No.	Date	Brief Description of Amendment	Revised Documents
1	2/18/2022	COI ID: 85001 Update the Project's completion date, risk assessment and applicable portions of the SWPPP.	Title Page Project Information Sections 2.3, 2.3.1, 2.4, 3.1 Appendix B Appendix E

Amendment No. 1

Project Name: Santa Ana Automation Yard

Location: 1325 S. Grand Avenue, Santa Ana, CA 92705

Santa Ana RWQCB (8) WDID No#: 8 30C395766

Qualified SWPPP Developer (QSD)
Approval of the
Storm Water Pollution Prevention Plan Amendment

"This amendment was prepared under my direction and supervision"

Company: CASC Engineering and Consulting
Name: Joyce Goode
Title: Environmental Scientist II
Address: 18 Technology Drive, Suite 135
City, State, Zip: Irvine, CA 92618
Telephone Number: (909) 557-0276



Amendment Description:

This amendment has been requested by SCE for the Santa Ana Automation Yard to update the project's construction schedule. Due to delays in construction, the completion date has been pushed back. The risk assessment has been updated. The project remains a Risk Level 2. The risk assessment and applicable sections of the SWPPP document/appendices have been updated and are included in this amendment.

A COI has been filed in SMARTS.

Signature: _____

Print Name: Joyce Goode

Date: February 18, 2022

Qualifications and License No.: CPESC No. 8448, QSD No. 25905



CHANGE OF INFORMATION (COI) EXHIBIT

Per

CALIFORNIA 2009-0009-DWQ,
Amended By 2010-0014-DWQ and 2012-0006-DWQ

For

COI ID: 85001

SANTA ANA AUTOMATION YARD
1325 S. Grand Avenue
Santa Ana, CA 92705

Project Overview	
WDID Number:	8 30C395766
Risk Type:	2
Construction Start Date:	August 30, 2021
Construction Completion Date:	February 28, 2022 (per original SWPPP)
Updated Construction Completion Date:	May 31, 2022 (Per COI# 85001)
Latitude, Longitude:	33.730781, -117.845806
Total Project Area:	1.0 Acres
Total Disturbed Area:	1.0 Acres

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SECTION 3.....3.1

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APPENDIX E.....CONSTRUCTION SCHEDULE



STORM WATER POLLUTION PREVENTION PLAN (SWPPP)
PER
CALIFORNIA 2009-0009-DWQ
Amended by 2010-0014-DWQ and 2012-0006-DWQ
FOR
SANTA ANA AUTOMATION YARD

1325 S. Grand Avenue
Santa Ana, CA 92705

WDID# 8 30C395766

SMARTS Application ID# 543537

Risk Level 2

Qualified SWPPP Developer (QSD)



Joyce Goode, CPESC, QSD/P
18 Technology Drive, Suite 135
Irvine, CA 92618
(909) 557-0276

Preparation Date: November 2021

Estimated Construction Dates:

~~Start Date: 08/30/2021~~ ~~Completion Date: 02/28/2022~~

Start Date: 08/30/2021 Completion Date: 05/31/2022

AMENDMENT CHANGES

PROJECT INFORMATION

Project Name: Santa Ana Automation Yard
Project SWPPP Location: Field QSP (available upon request)
Construction Duration: August 30, 2021 – May 31, 2022
Risk Level: 2
Standard Business Hours: 0600 – 1530, Monday through Friday Note: standard business hours may change due to environmental issues, construction crew changes, scheduling issues, etc.

Southern California Edison (SCE) shall ensure that the Project SWPPP is available at the location indicated above for the duration of construction. Should the Project SWPPP location change, this page shall be updated by the Qualified SWPPP Practitioner (QSP) to reflect the SWPPP's current location.

2.3 Project Risk Assessment

A project's risk assessment (Table 2-1) is dependent on the project's location in proximity to receiving waters, impairments of the receiving waters, the timeline for construction activities, and site characteristics. Project risk level is determined from the following:

- Sediment Risk – the relative amount of sediment that can be discharged, given the above mentioned factors; a project's sediment risk level is determined from the Revised Universal Soil Loss Equation (RUSLE).
- Receiving Waters Risk – the risk that sediment discharges pose to a project's receiving waters; a project's receiving waters risk level is based on whether a project drains to a sediment-sensitive water body or sensitive habitat. A project that meets at least one of the three criteria listed below has a high receiving water risk:
 - A water body listed on the most recent CWA 303(d) list for waterbodies impaired for sediment; or
 - A water body that has a USEPA-approved Total Maximum Daily Load (TMDL) implementation plan for sediment; or
 - A water body that has the beneficial uses of COLD and SPAWN and MIGRATORY.

**Table 2-1
Risk Assessment**

Summary of Sediment Risk			
RUSLE Factor	Value	Method for establishing value	
R	37.3	EPA Rainfall Erosivity Factor Calculator	
K	0.32	SWRCB GIS Map Method	
LS	0.65	SWRCB GIS Map Method	
Total Predicted Sediment Loss in tons/acre (R x K x LS)		7.7584	
Overall Sediment Risk: <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div> – Low Sediment Risk < 15 tons/ acre – Medium Sediment Risk >= 15 and < 75 tons/acre – High Sediment Risk >= 75 tons/acre </div> <div> <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High </div> </div>			
Summary of Receiving Water Risk			
Receiving Water Name:	303(d) Listed for Sediment Related Pollutant ⁽¹⁾	TMDL for Sediment Related Pollutant ⁽¹⁾	Beneficial Uses of COLD, SPAWN, and MIGRATORY ⁽¹⁾
Peters Canyon Channel	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
San Diego Creek Reach 1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Newport Bay, Upper	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Overall Receiving Water Risk			<input type="checkbox"/> Low <input checked="" type="checkbox"/> High

(1) If yes is selected for any option the Receiving Water Risk is High

2.3.1 Project Risk Level Determination

Based on the risk level assessment from Table 2-1 (above), the Project is a Risk Level 2 project as shown in Table 2-2. A copy of the Risk Level determination documentation is included in Appendix B.

**Table 2-2
Risk Level Determination**

Combined Risk Level Matrix		Sediment Risk		
		<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Receiving Water Risk	<input type="checkbox"/> Low	Level 1	Level 2	
	<input checked="" type="checkbox"/> High	Level 2		Level 3

2.4 Construction Schedule

A Project schedule has been developed and is provided in Appendix E. The Project schedule includes the following:

Estimated Project Start Date: August 30, 2021

Estimated Project Completion Date: May 31, 2022

If the project completion date will need to be extended beyond the original end date, the Project risk assessment will need to be recalculated at least 30 days prior to the original end date.

3.1 BMP Implementation Schedule

Table 3-1 below provides a list of BMPs proposed for use on this Project. SCE will be responsible for installing and maintaining BMPs throughout the duration of this Project. The Field QSP will inspect BMPs and provide recommendations for BMP installation and maintenance. Copies of BMP fact sheets specific to this project are located in Appendix H of this SWPPP.

Table 3-1: Proposed BMPs and Implementation Schedule

BMP Description	<u>Estimated Timeline of Activity</u>	
	Estimated Project Start Date: August 2021 Estimated Project Completion Date: May 2022	
EC-1 Scheduling	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
EC-2 Preservation of Existing Vegetation	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input type="checkbox"/> Final Landscaping and Stabilization
EC-5 Soil Binders	<input checked="" type="checkbox"/> Grading and Land Development <input type="checkbox"/> Vertical Construction Site	<input type="checkbox"/> Streets and Utilities <input type="checkbox"/> Final Landscaping and Stabilization
EC-7 Geotextiles and Mats	<input checked="" type="checkbox"/> Grading and Land Development <input type="checkbox"/> Vertical Construction Site	<input type="checkbox"/> Streets and Utilities <input type="checkbox"/> Final Landscaping and Stabilization
EC-8 Wood Mulching	<input type="checkbox"/> Grading and Land Development <input type="checkbox"/> Vertical Construction Site	<input type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
EC-16 Non-Vegetative Stabilization	<input type="checkbox"/> Grading and Land Development <input type="checkbox"/> Vertical Construction Site	<input type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
WM-1 Material Delivery and Storage	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
WM-2 Material Use	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization

BMP Description	<u>Estimated Timeline of Activity</u> Estimated Project Start Date: August 2021 Estimated Project Completion Date: May 2022	
WM-3 Stockpile Management	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
WM-4 Spill Prevention and Control	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
WM-5 Solid Waste Management	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
WM-6 Hazardous Waste Management	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
WM-8 Concrete Waste Management	<input type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
WM-9 Sanitary/Septic Waste Management	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
WM-10 Liquid Waste Management	<input type="checkbox"/> Grading and Land Development <input type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input type="checkbox"/> Final Landscaping and Stabilization
NS-1 Water Conservation Practices	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
NS-3 Paving and Grinding Operations	<input type="checkbox"/> Grading and Land Development <input type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input type="checkbox"/> Final Landscaping and Stabilization
NS-6 Illicit Connection/Discharge	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
NS-9 Vehicle and Equipment Fueling	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
NS-10 Vehicle and Equipment Maintenance	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Final Landscaping and Stabilization
NS-12 Concrete Curing	<input type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Vertical Construction Site	<input checked="" type="checkbox"/> Streets and Utilities <input type="checkbox"/> Final Landscaping and Stabilization

BMP Description	<u>Estimated Timeline of Activity</u> Estimated Project Start Date: August 2021 Estimated Project Completion Date: May 2022
NS-13 Concrete Finishing	<input type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Vertical Construction Site <input type="checkbox"/> Final Landscaping and Stabilization
SE-1 Silt Fence	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Vertical Construction Site <input type="checkbox"/> Final Landscaping and Stabilization
SE-4 Check Dams	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Vertical Construction Site <input type="checkbox"/> Final Landscaping and Stabilization
SE-5 Fiber Rolls	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Vertical Construction Site <input checked="" type="checkbox"/> Final Landscaping and Stabilization
SE-6 Gravel Bag Berm	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Vertical Construction Site <input type="checkbox"/> Final Landscaping and Stabilization
SE-7 Street Sweeping and Vacuuming	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Vertical Construction Site <input checked="" type="checkbox"/> Final Landscaping and Stabilization
SE-8 Sandbag Barrier	<input type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Streets and Utilities <input type="checkbox"/> Vertical Construction Site <input type="checkbox"/> Final Landscaping and Stabilization
SE-10 Storm Drain Inlet Protection	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Vertical Construction Site <input checked="" type="checkbox"/> Final Landscaping and Stabilization
TC-1 Stabilized Construction Entrance/Exit	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Vertical Construction Site <input checked="" type="checkbox"/> Final Landscaping and Stabilization
WE-1 Wind Erosion Control	<input checked="" type="checkbox"/> Grading and Land Development <input checked="" type="checkbox"/> Streets and Utilities <input checked="" type="checkbox"/> Vertical Construction Site <input checked="" type="checkbox"/> Final Landscaping and Stabilization

Appendix B –Permit Registration Documents

- Risk Level Assessment

	A	B	C
1	Sediment Risk Factor Worksheet		Entry
2	A) R Factor		
3	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.		
4	http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm		
5	R Factor Value		37.3
6	B) K Factor (weighted average, by area, for all site soils)		
7	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.		
8	Site-specific K factor guidance		
9	K Factor Value		0.32
10	C) LS Factor (weighted average, by area, for all slopes)		
11	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.		
12	LS Table		
13	LS Factor Value		0.65
14			
15	Watershed Erosion Estimate (=R_xK_xLS) in tons/acre		7.7584
16	Site Sediment Risk Factor		Low
17	Low Sediment Risk: < 15 tons/acre		
18	Medium Sediment Risk: >=15 and <75 tons/acre		
19	High Sediment Risk: >= 75 tons/acre		
20			

Receiving Water (RW) Risk Factor Worksheet		Entry	Score
A. Watershed Characteristics		yes/no	
A.1. Does the disturbed area discharge (either directly or indirectly) to a 303(d)-listed waterbody impaired by sediment (For help with impaired waterbodies please visit the link below) or has a USEPA approved TMDL implementation plan for sediment ? http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml OR		Yes	High
A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY? (For help please review the appropriate Regional Board Basin Plan) http://www.waterboards.ca.gov/waterboards_map.shtml			
Region 1 Basin Plan Region 2 Basin Plan Region 3 Basin Plan Region 4 Basin Plan Region 5 Basin Plan Region 6 Basin Plan Region 7 Basin Plan Region 8 Basin Plan Region 9 Basin Plan			

Combined Risk Level Matrix			
<u>Receiving Water Risk</u>	<u>Sediment Risk</u>		
	Low	Medium	High
	Low	Level 1	Level 2
High	Level 2		Level 3

Project Sediment Risk: **Low**

Project RW Risk: **High**

Project Combined Risk: **Level 2**

Rainfall Erosivity Factor Calculator for Small Construction Sites

EPA's stormwater regulations allow NPDES permitting authorities to waive NPDES permitting requirements for stormwater discharges from small construction sites if:

- the construction site disturbs less than five acres, and
- the rainfall erosivity factor ("R" in the revised universal soil loss equation, or RUSLE) value is less than five during the period of construction activity.


If your small construction project is located in an area where EPA is the permitting authority and your R factor is less than five, you qualify for a low erosivity waiver (LEW) from NPDES stormwater permitting. If your small construction project does not qualify for a waiver, then NPDES stormwater permit coverage is required. Follow the steps below to calculate your R-Factor.

LEW certifications are submitted through the NPDES eReporting Tool or "CGP-NeT". Several states that are authorized to implement the NPDES permitting program also accept LEWs. Check with your state NPDES permitting authority for more information.

- [Submit your LEW through EPA's eReporting Tool](#)
- [List of states, Indian country, and territories where EPA is the permitting authority](#)
- [Construction Rainfall Erosivity Waiver Fact Sheet](#)
- [Appendix C of the 2017 CGP - Small Construction Waivers and Instructions](#)

The R-factor calculation can also be integrated directly into custom applications using the [R-Factor web service](#).


For questions or comments, email EPA's CGP staff at cgp@epa.gov.

 Select the estimated start and end dates of construction by clicking the boxes and using the dropdown calendar.

The period of construction activity begins at initial earth disturbance and ends with final stabilization.

Start Date: 08/30/2021


End Date: 05/31/2022

 Locate your small construction project using the search box below or by clicking on the map.

Location: 33.730781,-117.845806

Search



 Click the "Calculate R Factor" button below to calculate an R Factor for your small construction project.

Calculate R Factor

Facility Information

Start Date: 08/30/2021	Latitude: 33.7308
End Date: 05/31/2022	Longitude: -117.8458

Calculation Results

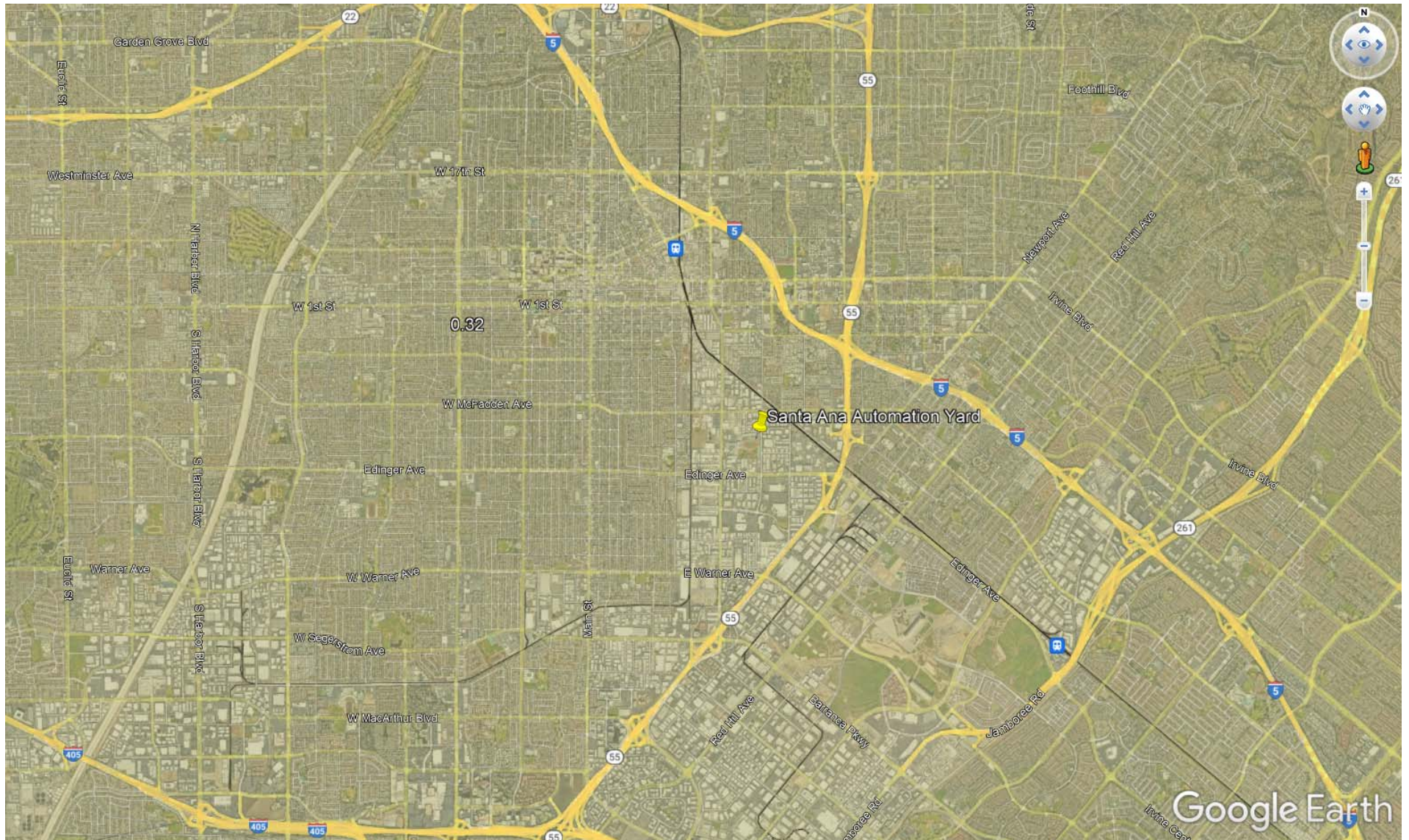
Rainfall erosivity factor (R Factor) = 37.3

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

You do NOT qualify for a waiver from NPDES permitting requirements and must seek Construction General Permit (CGP) coverage. If you are located in an area where EPA is the permitting authority, you must submit a Notice of Intent (NOI) through the [NPDES eReporting Tool \(NeT\)](#). Otherwise, you must seek coverage under your state's CGP.

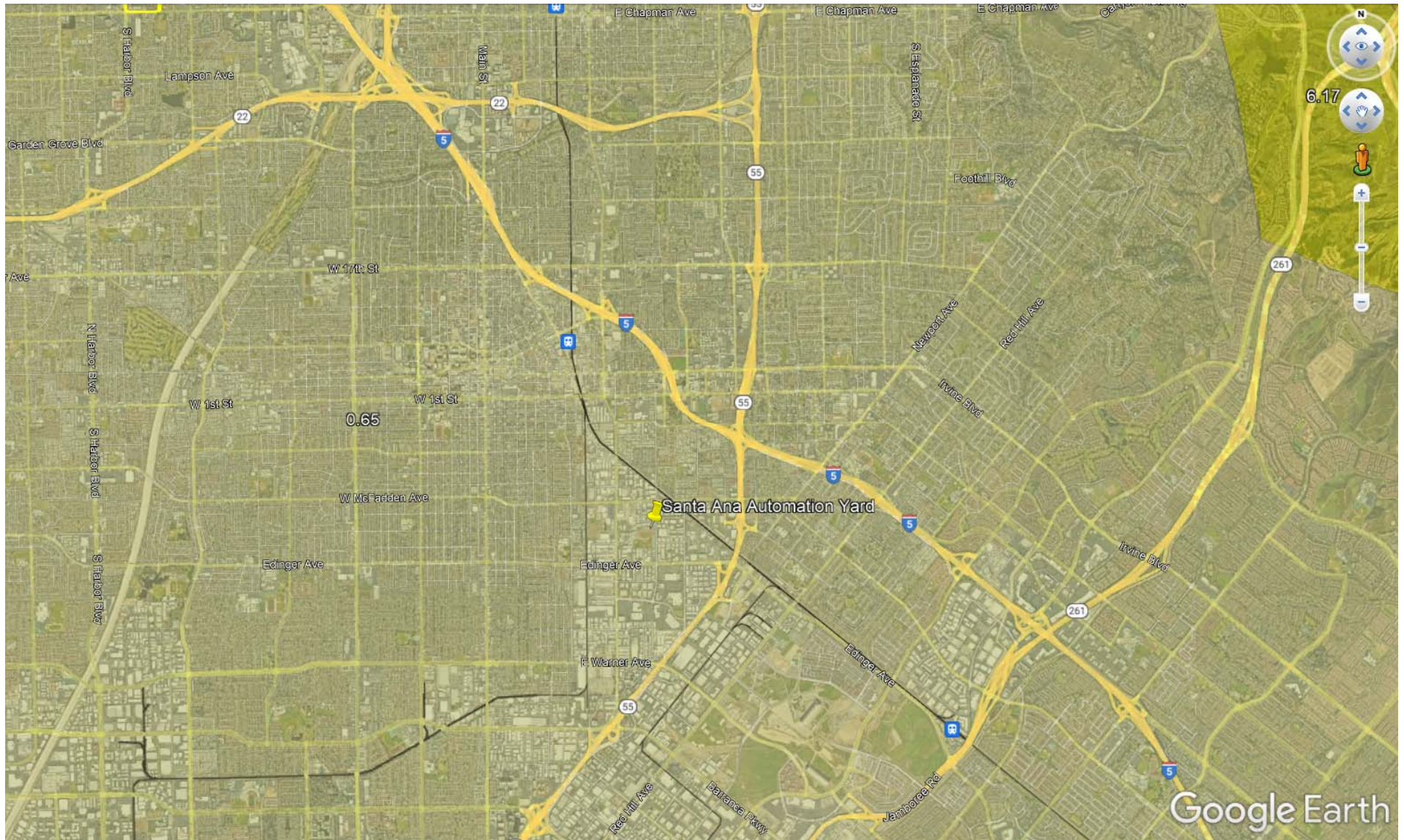
Santa Ana Automation Yard

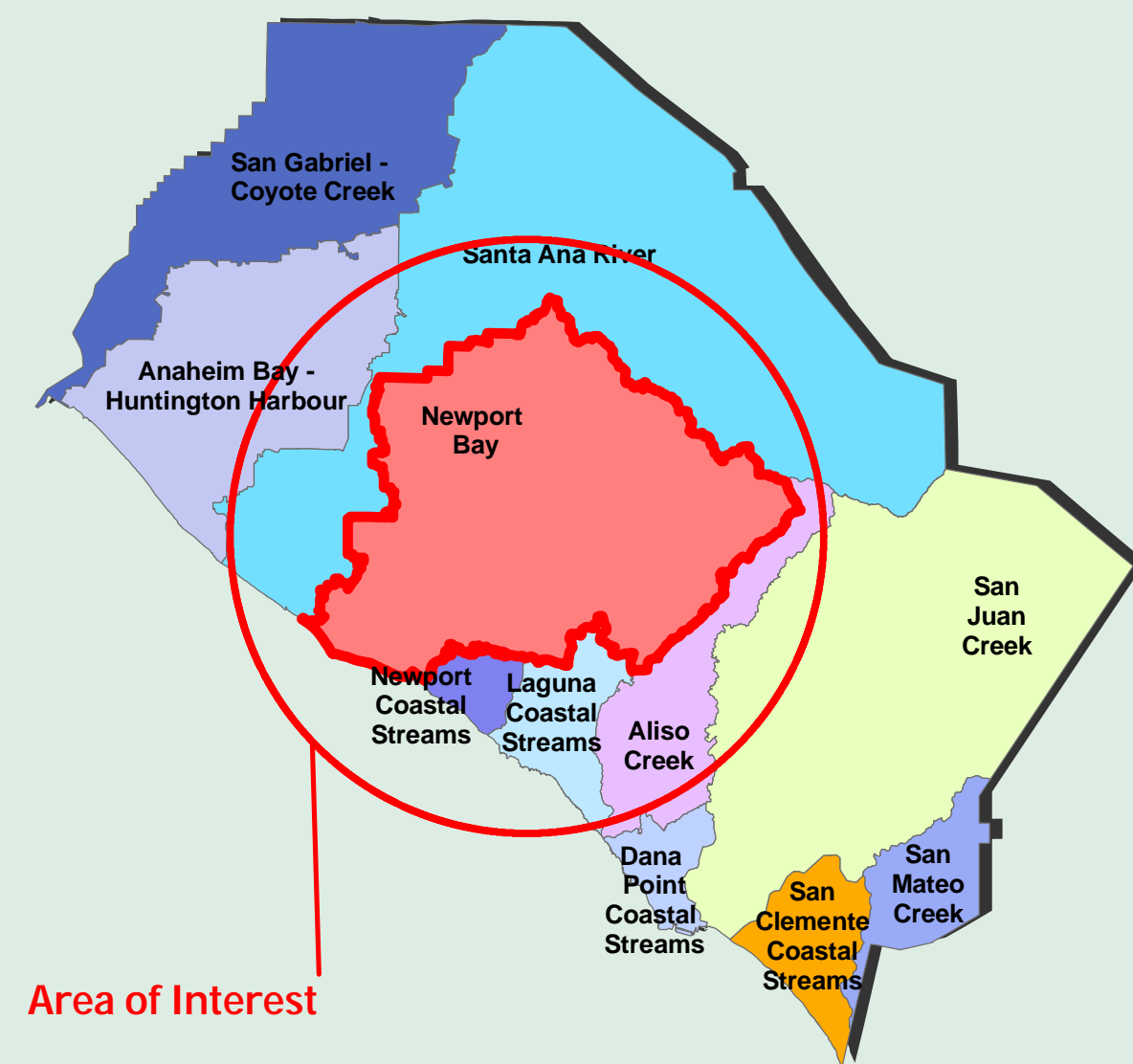
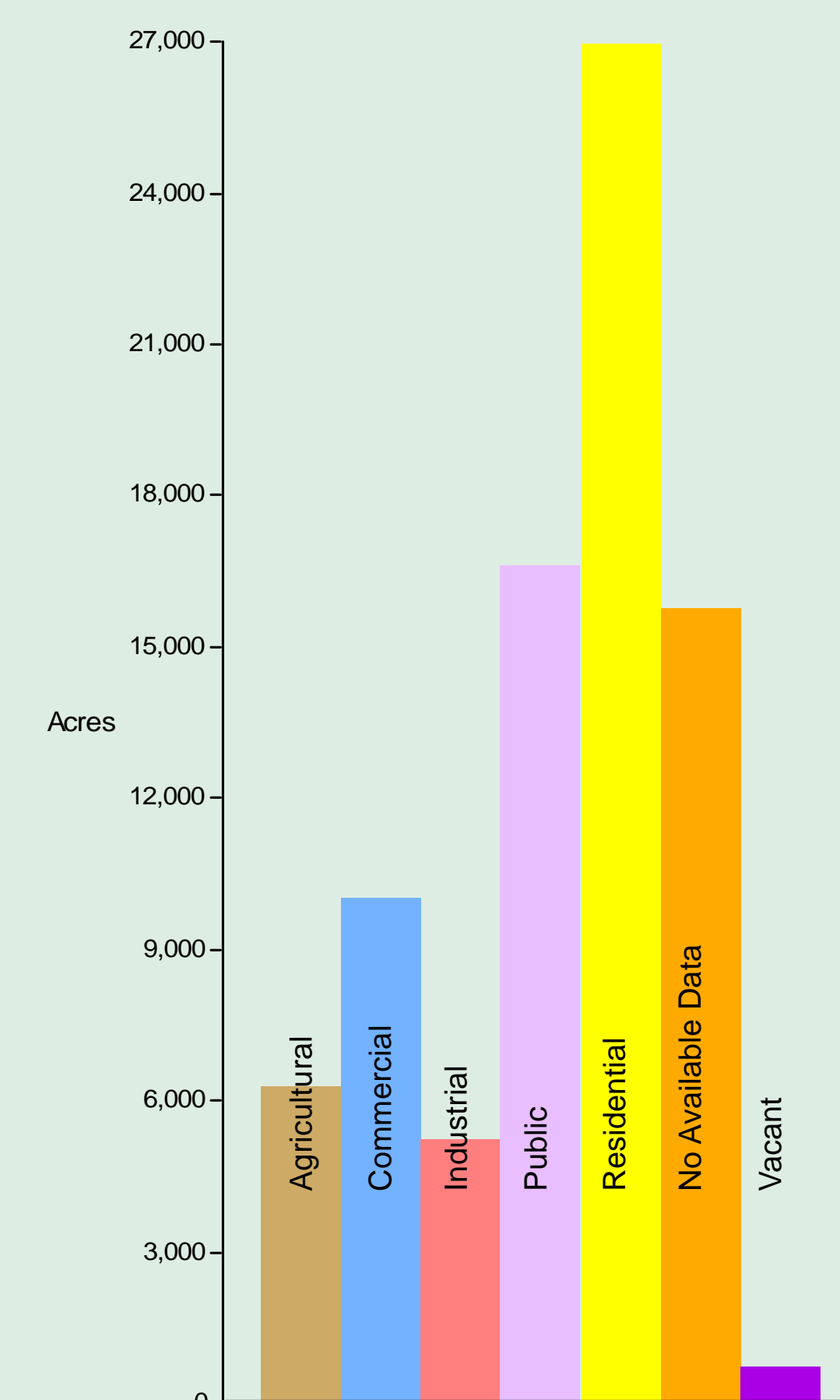
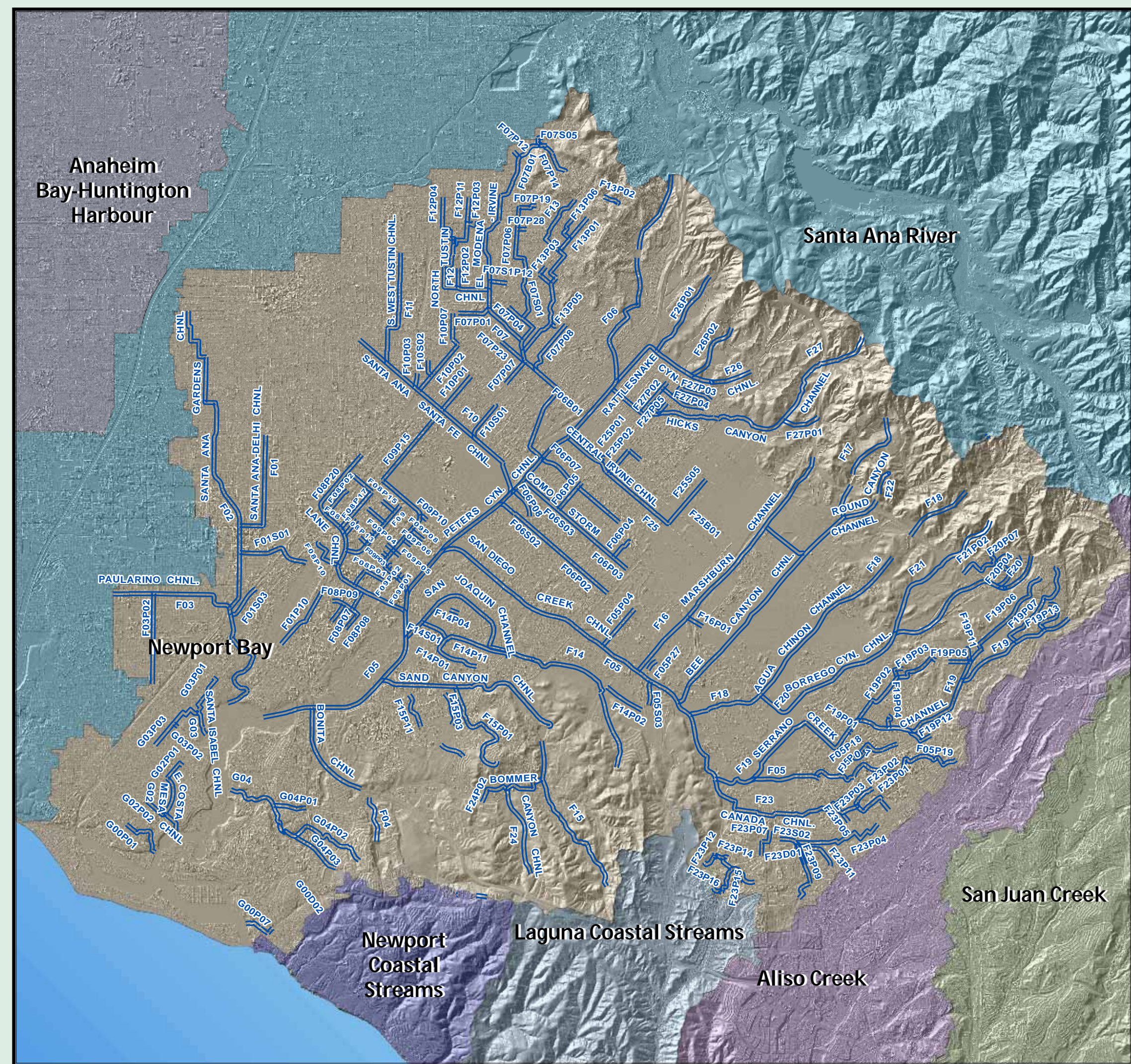
GIS K-Value = 0.32



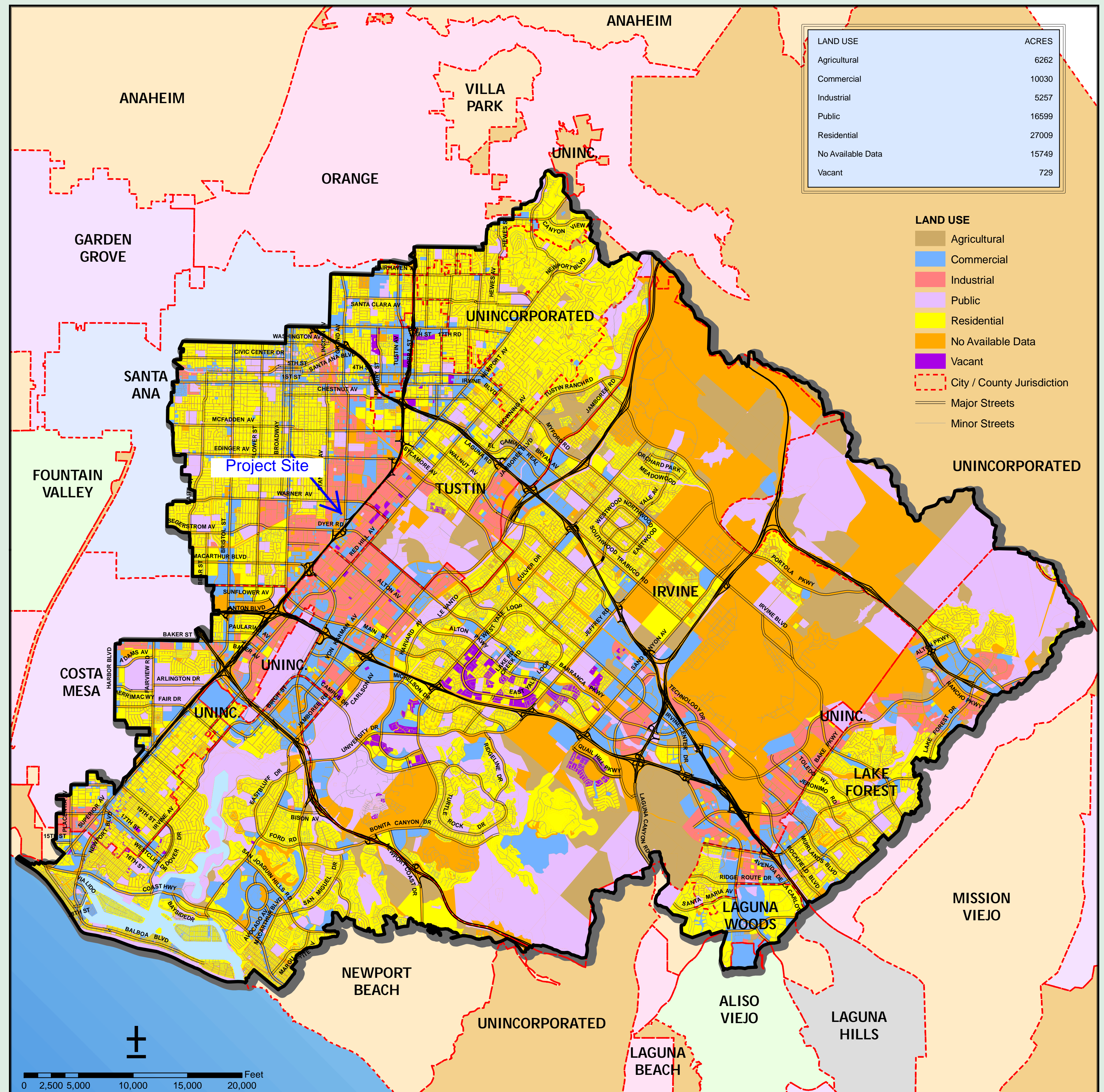
Santa Ana Automation Yard

GIS LS-Value = 0.65





97294 Acres



WATERSHED: NEWPORT BAY

COUNTY OF ORANGE, CALIFORNIA

DESIGNED AND PRODUCED BY:
CIC Public Works
GIS Mapping Unit
Philip Pappas

DATA SOURCE:
Geomatics Land Information Systems Division

The County of Orange and Geomatics/LISGIS make no representations or warranties regarding the accuracy of the data from which this map was derived. Neither the County nor Geomatics/LISGIS shall be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

DATE: November 18, 2009

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
8	B	Anaheim Bay	80111000	Dieldrin (tissue) <i>This listing was made by USEPA.</i> Source Unknown		402 Acres	2019
				Nickel <i>This listing was made by USEPA.</i> Source Unknown		402 Acres	2019
				PCBs (Polychlorinated biphenyls) (tissue) <i>This listing was made by USEPA.</i> Source Unknown		402 Acres	2019
				Sediment Toxicity Source Unknown		402 Acres	2019
8	C	Balboa Beach	80114000	DDT Source Unknown		1.8 Miles	2019
				Dieldrin Source Unknown		1.8 Miles	2019
				PCBs (Polychlorinated biphenyls) Source Unknown		1.8 Miles	2019
8	L	Big Bear Lake	80171000	Copper Resource Extraction		2865 Acres	2007
				Mercury Resource Extraction		2865 Acres	2007
				Metals Resource Extraction		2865 Acres	2007
				Noxious aquatic plants Construction/Land Development Unknown point source		2865 Acres	2006

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
				Nutrients		2865 Acres	2006
					Construction/Land Development Snow skiing activities		
				PCBs (Polychlorinated biphenyls)		2865 Acres	2019
					Source Unknown		
				Sedimentation/Siltation		2865 Acres	2006
					Construction/Land Development Snow skiing activities Unknown Nonpoint Source		
8	C	Bolsa Chica State Beach	80111000	Copper		2.6 Miles	2019
				<i>This listing was made by USEPA.</i>			
					Source Unknown		
				Nickel		2.6 Miles	2019
				<i>This listing was made by USEPA.</i>			
					Source Unknown		
8	R	Buck Gully Creek	80111000	Fecal Coliform		0.3 Miles	2019
				<i>Listing is downstream of Pacific Coast Highway.</i>			
					Source Unknown		
				Total Coliform		0.3 Miles	2019
				<i>Listing is downstream of Pacific Coast Highway.</i>			
					Source Unknown		
8	L	Canyon Lake (Railroad Canyon Reservoir)	80211000	Pathogens		453 Acres	2006
					Nonpoint Source		
8	R	Chino Creek Reach 1	80121000	Nutrients		7.8 Miles	2019
					Agriculture Dairies		

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
8	L	Elsinore, Lake	80231000	PCBs (Polychlorinated biphenyls)		2431 Acres	2019
					Source Unknown		
				Unknown Toxicity		2431 Acres	2007
					Unknown Nonpoint Source		
8	L	Fulmor, Lake	80221000	Pathogens		4.2 Acres	2019
					Unknown Nonpoint Source		
8	R	Grout Creek	80171000	Metals		3.5 Miles	2007
					Unknown Nonpoint Source		
				Nutrients		3.5 Miles	2008
					Unknown Nonpoint Source		
8	C	Huntington Beach State Park	80111000	Enterococcus		5.8 Miles	2019
				<i>Impaired 50 yards around drain at Magnolia St.</i>			
					Source Unknown		
				Indicator bacteria		5.8 Miles	2019
				<i>This listing was made by USEPA for 2006. This listing for indicator bacteria applies to the area of the beach at Brookhurst St.</i>			
					Source Unknown		
				PCBs (Polychlorinated biphenyls)		5.8 Miles	2019
					Source Unknown		
8	B	Huntington Harbour	80111000	Chlordane		221 Acres	2019
					Source Unknown		
				Copper		221 Acres	2019
				<i>This listing was made by USEPA.</i>			
					Source Unknown		
				Lead		221 Acres	2019
					Source Unknown		

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
				Nickel		221 Acres	2019
				<i>This listing was made by USEPA.</i>			
					Source Unknown		
				Pathogens		221 Acres	2019
					Urban Runoff/Storm Sewers		
				PCBs (Polychlorinated biphenyls) (tissue)		221 Acres	2019
				<i>This listing was made by USEPA.</i>			
					Source Unknown		
				Sediment Toxicity		221 Acres	2019
					Source Unknown		
8	R	Knickerbocker Creek	80171000	Metals		2 Miles	2007
					Unknown Nonpoint Source		
				Pathogens		2 Miles	2005
				<i>For 2006, pathogens was moved by USEPA from the being addressed list back to the 303(d) list pending completion and USEPA approval of a TMDL.</i>			
					Unknown Nonpoint Source		
8	R	Los Trancos Creek (Crystal Cove Creek)	80111000	Fecal Coliform		0.19 Miles	2019
				<i>Listing is downstream of Pacific Coast Highway.</i>			
					Source Unknown		
				Total Coliform		0.19 Miles	2019
				<i>Listing is downstream of Pacific Coast Highway.</i>			
					Source Unknown		
8	R	Lytle Creek	80141000	Pathogens		41 Miles	2019
					Unknown Nonpoint Source		
8	R	Mill Creek (Prado Area)	80121000	Nutrients		1.6 Miles	2019
					Agriculture		
					Dairies		

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

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USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
				Total Suspended Solids (TSS)		1.6 Miles	2019
				Dairies			
8	R	Mill Creek Reach 1	80156000	Pathogens		12 Miles	2019
				Unknown Nonpoint Source			
8	R	Mill Creek Reach 2	80158000	Pathogens		12 Miles	2019
				Unknown Nonpoint Source			
8	R	Mountain Home Creek	80158000	Pathogens		3.7 Miles	2019
				Unknown Nonpoint Source			
8	R	Mountain Home Creek, East Fork	80158000	Pathogens		5.1 Miles	2019
				Unknown Nonpoint Source			
8	B	Newport Bay, Lower	80114000	Chlordane		767 Acres	2019
				Copper	Source Unknown	767 Acres	2007
				DDT	Source Unknown	767 Acres	2019
				PCBs (Polychlorinated biphenyls)	Source Unknown	767 Acres	2019
				Sediment Toxicity	Source Unknown	767 Acres	2019
					Source Unknown		

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

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8	E	Newport Bay, Upper (Ecological Reserve)	80111000	Chlordane		653 Acres	2019
					Source Unknown		
				Copper		653 Acres	2007
					Source Unknown		
				DDT		653 Acres	2019
					Source Unknown		
				Metals		653 Acres	2019
					Urban Runoff/Storm Sewers		
				PCBs (Polychlorinated biphenyls)		653 Acres	2019
					Source Unknown		
				Sediment Toxicity		653 Acres	2019
					Source Unknown		
8	R	Peters Canyon Channel	80111000	DDT		3 Miles	2019
					Source Unknown		
				Toxaphene		3 Miles	2019
					Source Unknown		
8	L	Prado Park Lake	80121000	Nutrients		90 Acres	2019
					Nonpoint Source		
8	R	Rathbone (Rathbun) Creek	80171000	Nutrients		4.7 Miles	2008
					Snow skiing activities		
					Unknown Nonpoint Source		

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
				Sedimentation/Siltation		4.7 Miles	2006
					Snow skiing activities		
					Unknown Nonpoint Source		
8	B	Rhine Channel	80114000	Copper		20 Acres	2019
					Source Unknown		
				Lead		20 Acres	2019
					Source Unknown		
				Mercury		20 Acres	2019
					Source Unknown		
				PCBs (Polychlorinated biphenyls)		20 Acres	2019
					Source Unknown		
				Sediment Toxicity		20 Acres	2019
					Source Unknown		
				Zinc		20 Acres	2019
					Source Unknown		
8	R	San Diego Creek Reach 1	80111000	Fecal Coliform		7.8 Miles	2019
					Urban Runoff/Storm Sewers		
					Other Urban Runoff		
				Selenium		7.8 Miles	2007
					Source Unknown		
				Toxaphene		7.8 Miles	2019
					Source Unknown		

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

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REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
8	R	San Diego Creek Reach 2	80111000	Metals		6.3 Miles	2007
					Urban Runoff/Storm Sewers		
8	R	Santa Ana River, Reach 4	80127000	Pathogens		14 Miles	2019
					Nonpoint Source		
8	R	Santiago Creek, Reach 4	80112000	Salinity/TDS/Chlorides		9.8 Miles	2019
					Source Unknown		
8	C	Seal Beach	80111000	Enterococcus		0.53 Miles	2019
				<i>Impaired 50 yards around drain at 1st Street.</i>			
					Source Unknown		
				PCBs (Polychlorinated biphenyls)		0.53 Miles	2019
					Source Unknown		
8	R	Silverado Creek	80112000	Pathogens		11 Miles	2019
					Unknown Nonpoint Source		
				Salinity/TDS/Chlorides		11 Miles	2019
					Unknown Nonpoint Source		
8	R	Summit Creek	80171000	Nutrients		1.5 Miles	2008
					Construction/Land Development		

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ABBREVIATIONS

REGIONAL WATER QUALITY CONTROL BOARDS

- 1 North Coast
- 2 San Francisco Bay
- 3 Central Coast
- 4 Los Angeles
- 5 Central Valley
- 6 Lahontan
- 7 Colorado River Basin
- 8 Santa Ana
- 9 San Diego

WATER BODY TYPE

- B = Bays and Harbors
 C = Coastal Shorelines/Beaches
 E = Estuaries
 L = Lakes/Reservoirs
 R = Rivers and Streams
 S = Saline Lakes
 T = Wetlands, Tidal
 W = Wetlands, Freshwater

CALWATER WATERSHED

"Calwater Watershed" is the State Water Resources Control Board hydrological subunit area or an even smaller area delineation.

GROUP A PESTICIDES OR CHEM A

aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide,
 hexachlorocyclohexane (including lindane), endosulfan, and toxaphene

Appendix E – Construction Schedule

Construction Schedule

Event or Construction Phase	Estimated Dates
Overall Start of Construction Estimated Date:	August 30, 2021
Estimated Start Date BMP Installation:	August 30, 2021
Estimated Completion of Final Stabilization Activities:	May 31, 2022
Estimated Overall Completion Date:	May 31, 2022