

	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		241.44
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		50.21952
16	Site Sediment Risk Factor		Medium
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		NO	Low
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: **Medium**

Project RW Risk: **Low**

Project Combined Risk: **Level 2**

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Rainfall Erosivity Factor Calculator for Small Construction

Introduction

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 <<https://www.epa.gov/npdes/submitted-notice-intent-noi-notice-termination-not-or-low-erosivity-waiver-lew-under>>

- List of states, Indian country, and territories where EPA is the permitting authority (pdf) <<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-b-areas-of-permit-cover.pdf>>
- Construction Rainfall Erosivity Waiver Fact Sheet <<https://www.epa.gov/npdes/construction-rainfall-erosivity-waiver-fact-sheet>>
- Small Construction Waivers and Instructions (pdf) <<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-c-waivers.pdf>>

The R-factor calculation can also be integrated directly into custom applications using the R-Factor web service <<https://epa.gov/api-docs/>>.

Steps to Calculate an R Factor for your Small Construction Project

- 1 Select the estimated start and end dates of construction by clicking the calendar icons below and using the dropdown calendar. The period of construction activity begins at initial earth disturbance and ends with final stabilization.

Start Date:

01/01/2026

End Date:

12/31/2026

- 2 Locate your small construction project by entering the address in the search box or by clicking on the map.

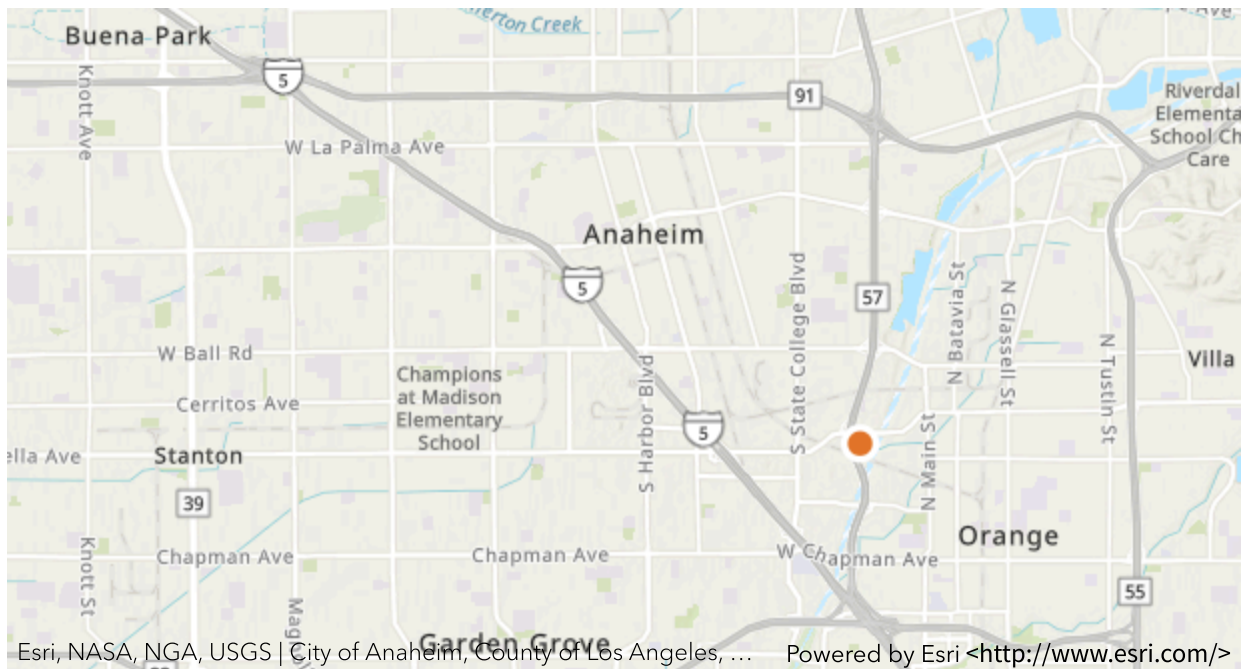
Location:

-117.87851125863116 , 33.80441539544'

Search

+

—



3 Click the "Calculate R Factor" button below.

Calculate R Factor

Facility Information

R-Factor Calculation:

1/2026 to 12/2026 = 40.24
 1/2027 to 12/2027 = 40.24
 1/2028 to 12/2028 = 40.24
 1/2029 to 12/2029 = 40.24
 1/2030 to 12/2030 = 40.24
 1/2031 to 12/2031 = 40.24
Total = 241.44

Start Date: 01/01/2026	Latitude: 33.8044
End Date: 12/31/2026	Longitude: -117.8785

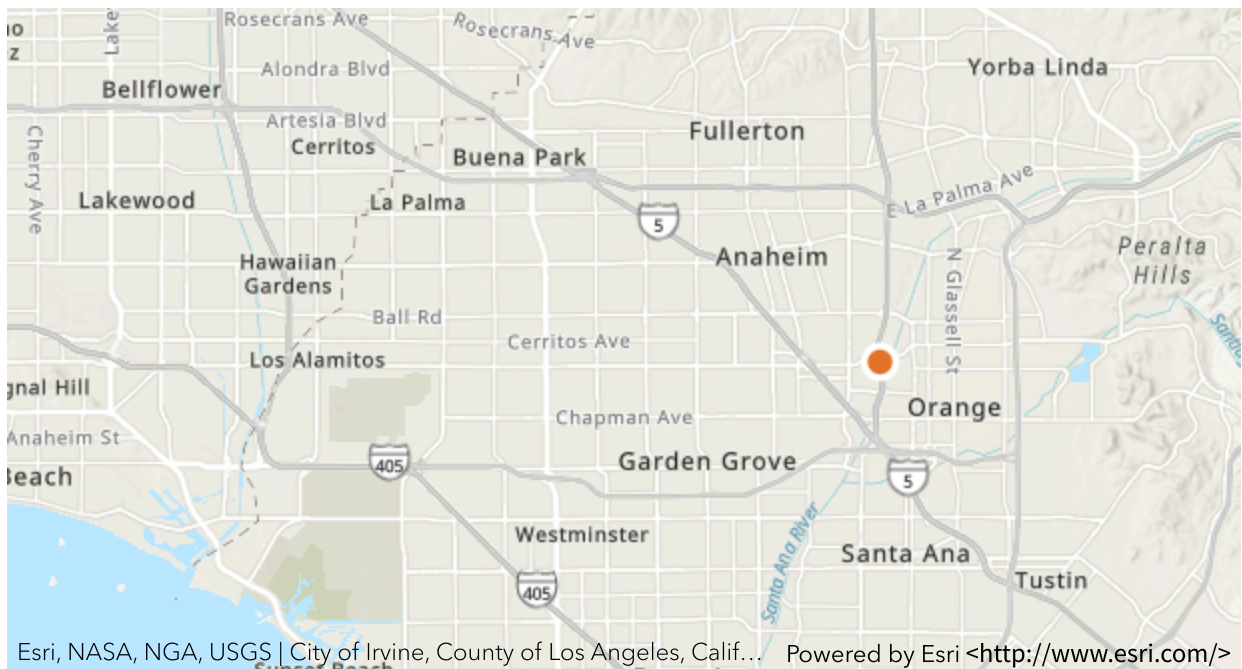
Calculation Results

Rainfall erosivity factor (R Factor) = 40.24

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 (pdf)

<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-b-areas-of-permit->



3 Click the "Calculate R Factor" button below.

Calculate R Factor

Facility Information

Start Date: 01/01/2027	Latitude: 33.8044
End Date: 12/31/2027	Longitude: -117.8785

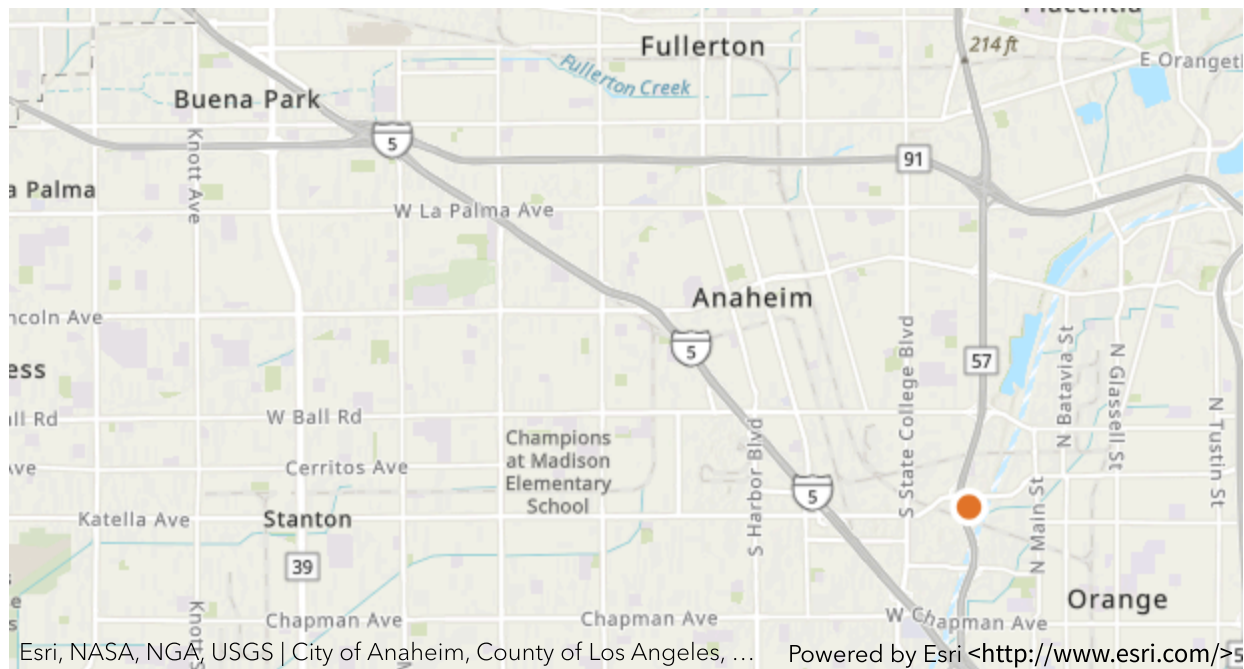
Calculation Results

Rainfall erosivity factor (R Factor) = 40.24

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 (pdf)

<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-b-areas-of-permit->



3 Click the "Calculate R Factor" button below.

Calculate R Factor

Facility Information

Start Date: 01/01/2028	Latitude: 33.8044
End Date: 12/31/2028	Longitude: -117.8785

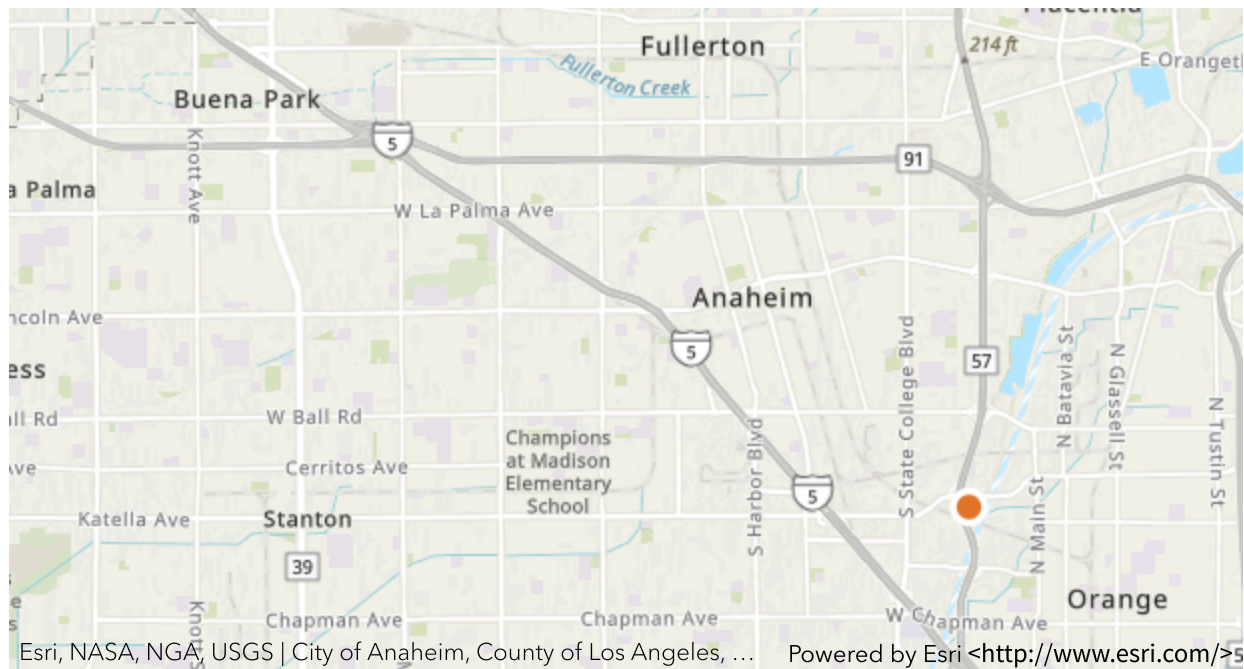
Calculation Results

Rainfall erosivity factor (R Factor) = 40.24

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 (pdf)

<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-b-areas-of-permit->



3 Click the "Calculate R Factor" button below.

Calculate R Factor

Facility Information

Start Date: 01/01/2029	Latitude: 33.8044
End Date: 12/31/2029	Longitude: -117.8785

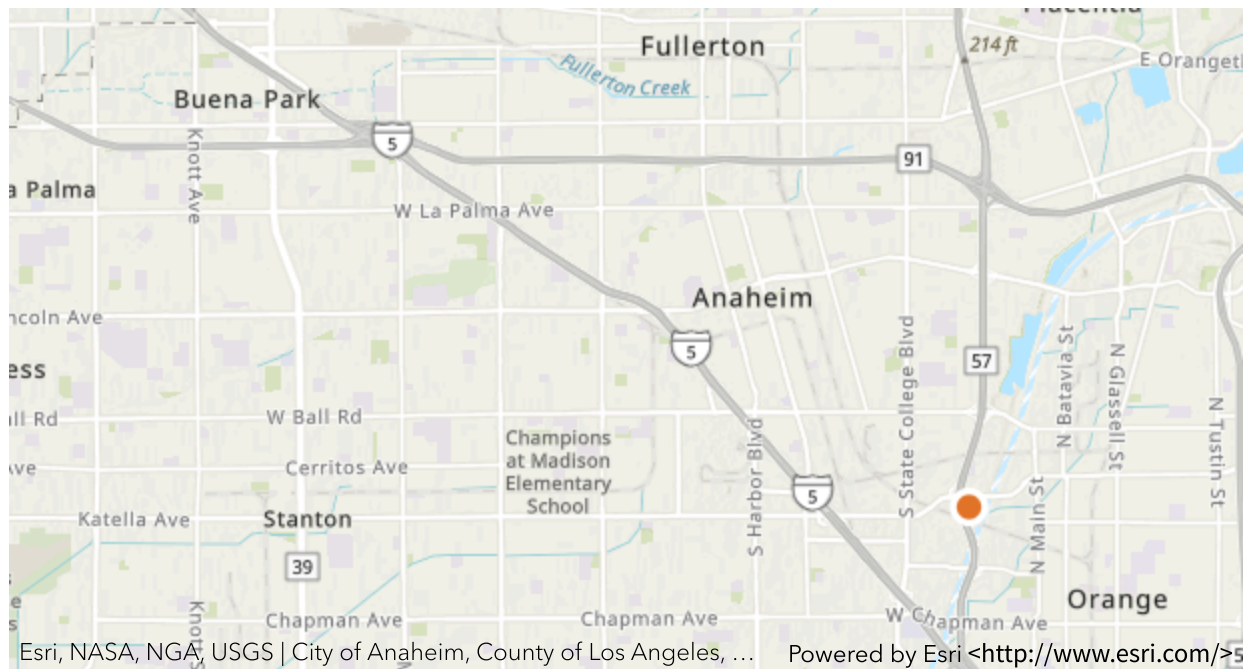
Calculation Results

Rainfall erosivity factor (R Factor) = 40.24

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 (pdf)

<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-b-areas-of-permit->



3 Click the "Calculate R Factor" button below.

Calculate R Factor

Facility Information

Start Date: 01/01/2030	Latitude: 33.8044
End Date: 12/31/2030	Longitude: -117.8785

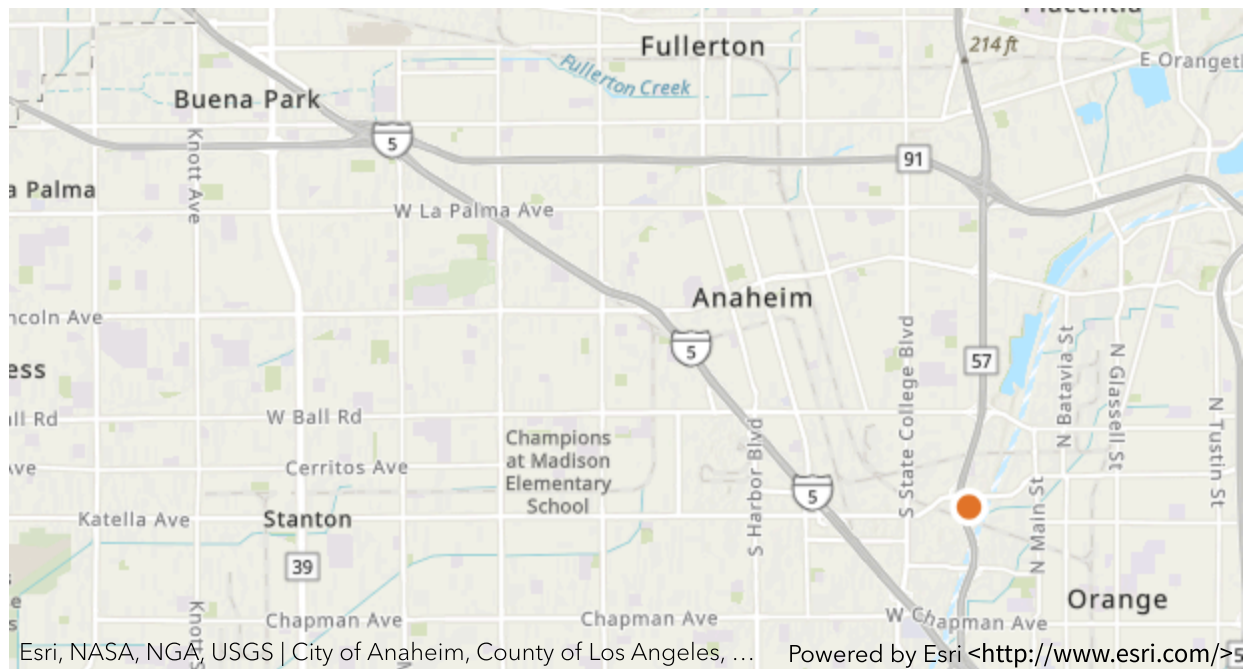
Calculation Results

Rainfall erosivity factor (R Factor) = 40.24

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 (pdf)

<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-b-areas-of-permit->



3 Click the "Calculate R Factor" button below.

Calculate R Factor

Facility Information

Start Date: 01/01/2031	Latitude: 33.8044
End Date: 12/31/2031	Longitude: -117.8785

Calculation Results

Rainfall erosivity factor (R Factor) = 40.24

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 (pdf)

<https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-b-areas-of-permit->

cover.pdf>, you must submit a Notice of Intent (NOI) through the NPDES eReporting Tool (NeT) <<https://www.epa.gov/npdes/submitting-notice-intent-noi-notice-termination-not-or-low-erosivity-waiver-lew-under>>. Otherwise, you must seek coverage under your state's CGP.

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



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•

Accessibility Statement

<<https://www.epa.gov/accessibility/epa-accessibility-statement>>

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No FEAR Act Data

<<https://www.epa.gov/oc/r/whistleblower-protections-epa-and-how-they-relate-non-disclosure-agreements-signed-epa>>

Plain Writing

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Privacy and Security Notice

<<https://www.epa.gov/privacy-and-security-notice>>

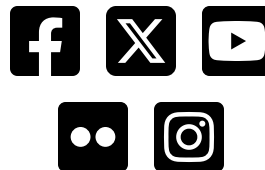
USA.gov

<<https://www.usa.gov/>>

White House

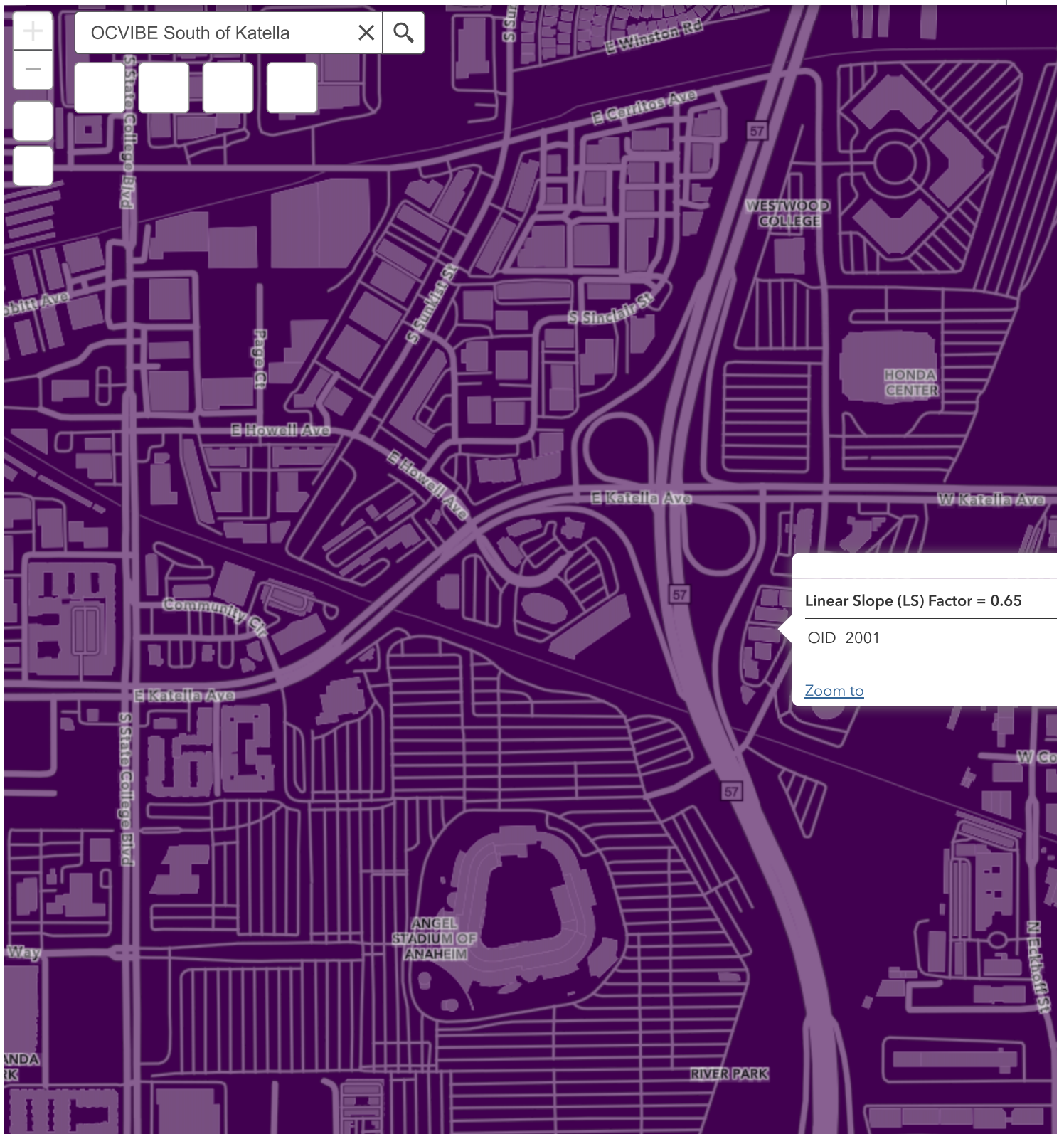
<<https://www.whitehouse.gov/>>

Follow.





2022 Construction Stormwater General Permit Length-Slope (LS) Factor



Linear Slope (LS) Factor = 0.65

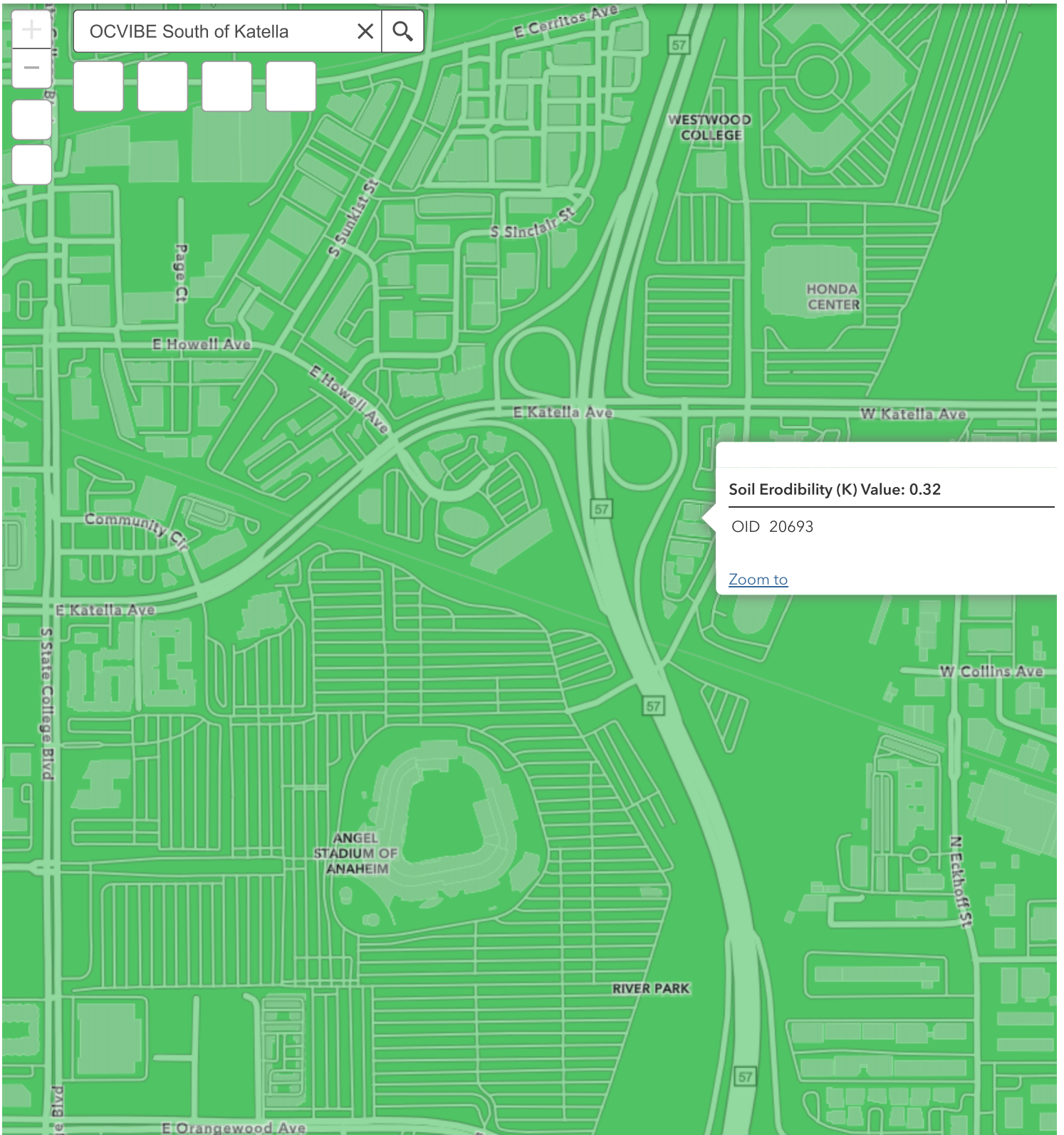
OID 2001

[Zoom to](#)

600ft
-117.864 33.806 Degrees



2022 Construction Stormwater General Permit Soil Erodibility (K) Factor





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2022 Construction Stormwater General Permit High-Risk Receiving Water Map Tool

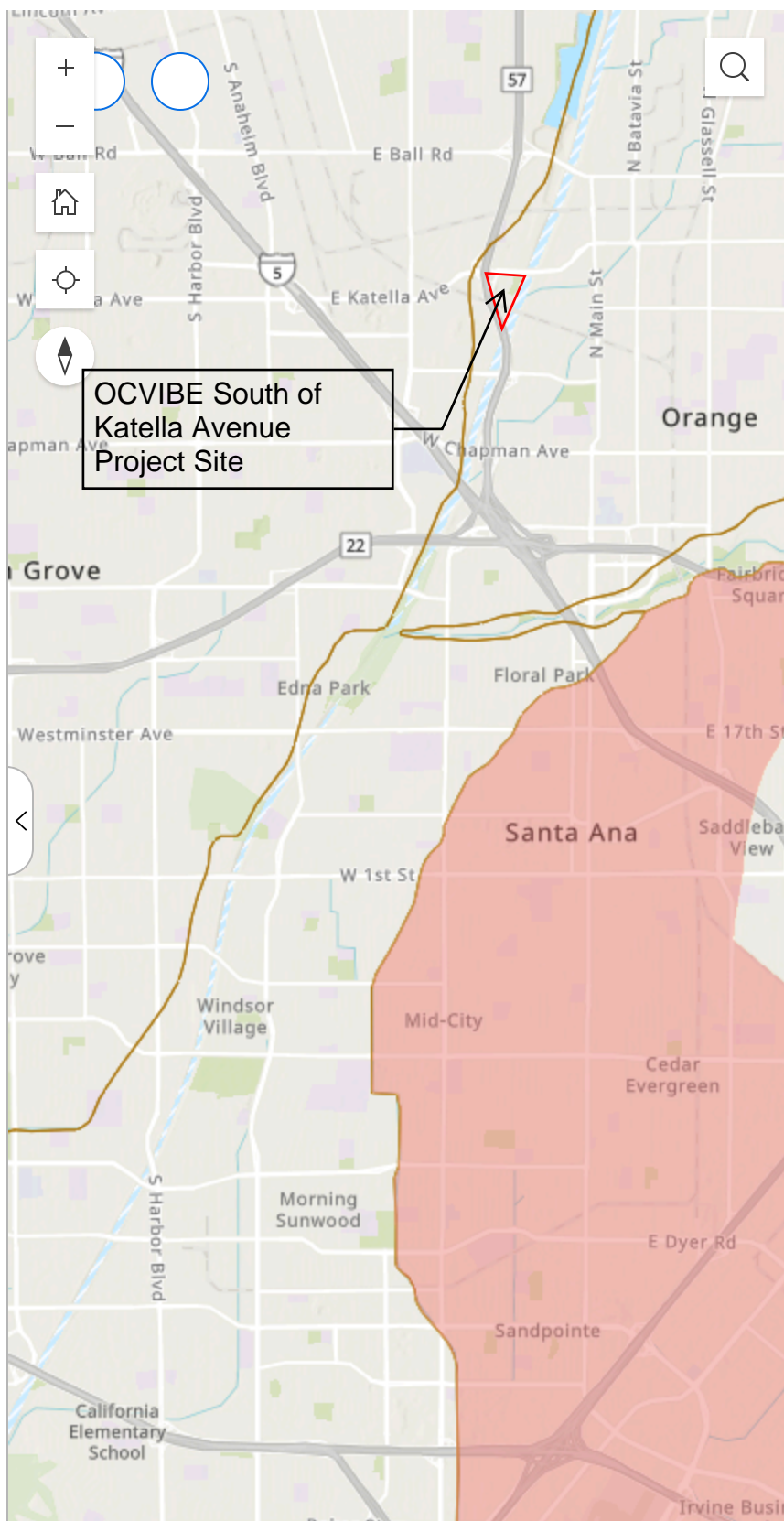


2022 CGP High-Risk Receiving Watershed Tool

Use the search bar to enter the address of the construction site. Click on the resulting blue square to identify the applicable high-risk receiving water watershed to select in the SMARTS Risk tab. Alternatively, zoom into the map and click on the project location. Follow the directions in the pop-up window to view applicable high-risk receiving water watershed information.

High-Risk Receiving Water implementation requirements are located in Attachment D.1 and Attachment E.1 of the Construction Stormwater General Permit Order 2022-0057-DWQ for traditional construction projects and linear underground/overhead projects, respectively.

For help using this resource please refer to the information icon in the top-left corner of the map and contact the Stormwater Help Desk (stormwater@waterboards.ca.gov) if necessary.





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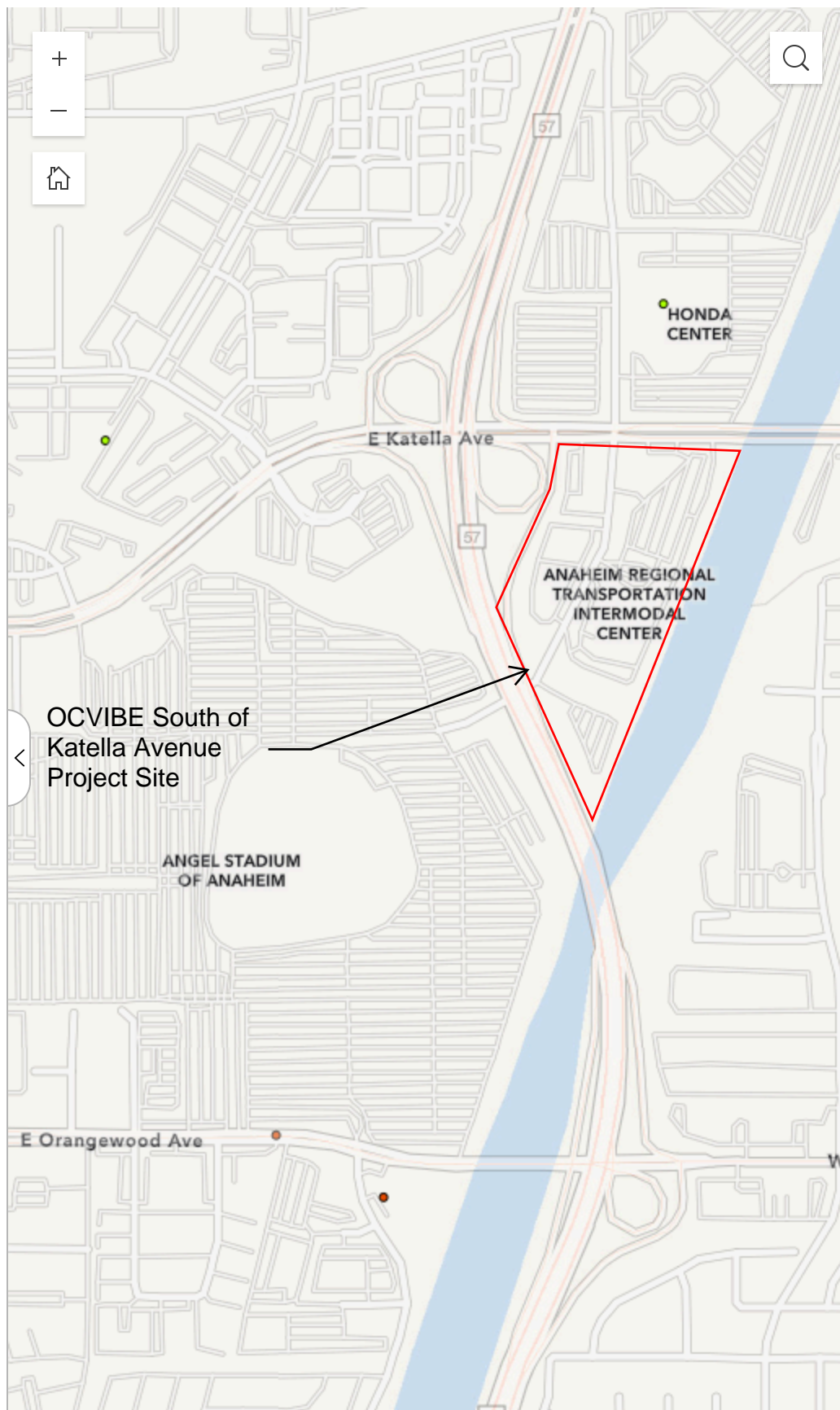
2022 Construction Stormwater General Permit TMDL Map Tool

Welcome to the Total Maximum Daily Load (TMDL) Tool

Use the search bar to enter the closest address of the construction site. Click on the resulting square to identify the applicable TMDL watershed or waterbody to select in the SMARTS TMDL tab. Alternatively, zoom into the map and click on the project location. Follow the directions in the pop-up window to view applicable TMDL watershed or watershed information.

TMDL implementation requirements are located in Attachment H of the Construction Stormwater General Permit Order 2022-0057-DWQ.

For help using this resource, please refer to the information icon in the top-right corner of the map and contact the Stormwater Help Desk (stormwater@waterboards.ca.gov) if necessary.





Caltrans Water Quality Planning Tool

The Water Quality Planning Tool was created to help planners and designers comply with environmental permits. It uses a map interface to find information based on a project's location. **This application is being updated for digital accessibility and will continue to function while updates are in progress.**

303(d) List and TMDLs 2024

Areas of Special Biological Significance

Arid and Semi Arid Regions

California Rainfall Distribution

Caltrans Districts

Caltrans Facilities

Caltrans Postmiles

Calwater Watersheds

Coastal Zone

Counties

Geologic Map

Flood Hazard Areas

High Risk Receiving Watersheds (2022)

Monthly Precipitation

MS4 Areas

RWQCB Boundaries

Soil Risk Level Determination

Soil Details

USGS Topo Maps

Watershed Boundary Dataset

Wetlands

Find address or place

XY

-117.873461°, 33.805550°

300 ft

Caltrans Postmiles

County:

Rainfall Erosivity Factor (R Factor)

Start Date

mm / dd / yyyy

 End Date

mm / dd / yyyy

Calculate R Factor

Watershed Information

CALWATER WATERSHED

Hydrologic Unit	SANTA ANA RIVER	Hydrologic Area	Lower Santa Ana River	Hydrologic Sub-Area #	801.11
Hydrologic Sub-Area Name	East Coastal Plain	Planning Watershed	4801110000	HSA Area (acres)	194575
Latitude, Longitude	33.80338, -117.87437				

WATERSHED BOUNDARY DATASET

Watershed	Lower Santa Ana River	Subwatershed	Walnut Canyon-Santa Ana River	Hydrologic Unit Code	180702031002
Average Annual Precipitation (inches)	13.72				

https://svctenvims.dot.ca.gov/wqpt/wqpt.aspx

1/8

TMDLs & 303(d) Listed Water Bodies (2024 List)

Key: Water body on 303(d) list Water body with a TMDL

Name	Pollutant	Size	Sources	Status
Alamitos Bay	Copper	327.52 Acres	A Source Unknown	TMDL required
Alamitos Bay	DDD (Dichlorodiphenyldichloroethane)	327.52 Acres	A Source Unknown	TMDL required
Alamitos Bay	DDT (Dichlorodiphenyltrichloroethane)	327.52 Acres	A Source Unknown	TMDL required
Alamitos Bay	Indicator Bacteria	327.52 Acres	A Source Unknown	Being addressed with USEPA approved TMDL
Alamitos Bay	Oxygen, Dissolved	327.52 Acres	A Source Unknown	TMDL required
Alamitos Bay	PCBs (Polychlorinated biphenyls)	327.52 Acres	A Source Unknown	TMDL required
Anaheim Bay	Nickel	402.02 Acres	A Source Unknown	TMDL required
Anaheim Bay	PCBs (Polychlorinated biphenyls)	402.02 Acres	A Source Unknown	TMDL required
Anaheim Bay	Toxicity	402.02 Acres	A Source Unknown	TMDL required
Balboa Beach	DDT (Dichlorodiphenyltrichloroethane)	1.84 Miles	A Source Unknown	TMDL required
Balboa Beach	Dieldrin	1.84 Miles	A Source Unknown	TMDL required
Balboa Beach	PCBs (Polychlorinated biphenyls)	1.84 Miles	A Source Unknown	TMDL required
Bolsa Bay Marsh	Toxicity	25.6 Acres	A Source Unknown	TMDL required
Bolsa Chica Channel	Ammonia (Unionized)	5.16 Miles	A Source Unknown	TMDL required
Bolsa Chica Channel	Indicator Bacteria	5.16 Miles	A Source Unknown	TMDL required
Bolsa Chica Channel	pH	5.16 Miles	A Source Unknown	TMDL required
Bolsa Chica Ecological Reserve	Toxicity	238.96 Acres	A Source Unknown	TMDL required
Bolsa Chica State Beach	Copper	2.64 Miles	A Source Unknown	TMDL required
Bolsa Chica State Beach	Indicator Bacteria	2.64 Miles	A Source Unknown	TMDL required
Bolsa Chica State Beach	Nickel	2.64 Miles	A Source Unknown	TMDL required
Bonita Creek	Benthic Community Effects	3.86 Miles	A Source Unknown	TMDL required
Bonita Creek	Toxicity	3.86 Miles	A Source Unknown	TMDL required
Borrego Creek (from Irvine Blvd to San Diego Creek Reach 2)	Ammonia (Unionized)	2.41 Miles	A Source Unknown	TMDL required
Borrego Creek (from Irvine Blvd to San Diego Creek Reach 2)	Indicator Bacteria	2.41 Miles	A Source Unknown	TMDL required
Buck Gully Creek	Indicator Bacteria	0.34 Miles	A Source Unknown	TMDL required
Crystal Cove State Park	Indicator Bacteria	0 Miles	A Source Unknown	TMDL required
East Garden Grove Wintersburg Channel	Ammonia (Unionized)	7.54 Miles	A Source Unknown	TMDL required
Huntington Beach State Park	Indicator Bacteria	2.14 Miles	A Source Unknown	TMDL required
Huntington Beach State Park	PCBs (Polychlorinated biphenyls)	2.14 Miles	A Source Unknown	TMDL required
Huntington City Beach	Indicator Bacteria	3.49 Miles	A Source Unknown	TMDL required
Huntington Harbour	Chlordane	372.61 Acres	A Source Unknown	TMDL required
Huntington Harbour	Copper	372.61 Acres	A Source Unknown	TMDL required
Huntington Harbour	Indicator Bacteria	372.61 Acres	A Source Unknown	TMDL required
Huntington Harbour	Lead	372.61 Acres	A Source Unknown	TMDL required
Huntington Harbour	PCBs (Polychlorinated biphenyls)	372.61 Acres	A Source Unknown	TMDL required

Huntington Harbour	Toxicity	372.61 Acres	A Source Unknown	TMDL required
Little Corona Del Mar Beach	Indicator Bacteria	0.13 Miles	A Source Unknown	TMDL required
Los Trancos Creek (Crystal Cove Creek)	Indicator Bacteria	3.18 Miles	A Source Unknown	TMDL required
Morning Canyon Creek	Indicator Bacteria	1.08 Miles	A Source Unknown	TMDL required
Moro Canyon Creek	Nitrogen	3.5 Miles	A Source Unknown	TMDL required
Moro Canyon Creek	Phosphorus	3.5 Miles	A Source Unknown	TMDL required
Moro Canyon Creek	Selenium	3.5 Miles	A Source Unknown	TMDL required
Moro Canyon Creek	Toxicity	3.5 Miles	A Source Unknown	TMDL required
Newport Bay, Lower (entire lower bay, including Rhine Channel, Turning Basin and South Lido Channel to east end of H-J Moorings)	Chlordane	106.55 Acres	See TMDL documentation	Being addressed with USEPA approved TMDL
Newport Bay, Lower (entire lower bay, including Rhine Channel, Turning Basin and South Lido Channel to east end of H-J Moorings)	Copper	106.55 Acres	Marinas and Recreational Boating	TMDL required
Newport Bay, Lower (entire lower bay, including Rhine Channel, Turning Basin and South Lido Channel to east end of H-J Moorings)	DDT (Dichlorodiphenyltrichloroethane)	106.55 Acres	See TMDL documentation	Being addressed with USEPA approved TMDL
Newport Bay, Lower (entire lower bay, including Rhine Channel, Turning Basin and South Lido Channel to east end of H-J Moorings)	Dieldrin	106.55 Acres	A Source Unknown	TMDL required
Newport Bay, Lower (entire lower bay, including Rhine Channel, Turning Basin and South Lido Channel to east end of H-J Moorings)	Indicator Bacteria	106.55 Acres	A Source Unknown	Being addressed with USEPA approved TMDL
Newport Bay, Lower (entire lower bay, including Rhine Channel, Turning Basin and South Lido Channel to east end of H-J Moorings)	Nutrients	106.55 Acres	A Source Unknown	Being addressed with USEPA approved TMDL
Newport Bay, Lower (entire lower bay, including Rhine Channel, Turning Basin and South Lido Channel to east end of H-J Moorings)	PCBs (Polychlorinated biphenyls)	106.55 Acres	See TMDL documentation	Being addressed with USEPA approved TMDL
Newport Bay, Lower (entire lower bay, including Rhine Channel, Turning Basin and South Lido Channel to east end of H-J Moorings)	Toxicity	106.55 Acres	A Source Unknown	TMDL required
Newport Bay, Upper (Ecological Reserve)	Chlordane	87.93 Acres	See TMDL documentation	Being addressed with USEPA approved TMDL
Newport Bay, Upper (Ecological Reserve)	Copper	87.93 Acres	Marinas and Recreational Boating	TMDL required
Newport Bay, Upper (Ecological Reserve)	DDT (Dichlorodiphenyltrichloroethane)	87.93 Acres	See TMDL documentation	Being addressed with USEPA approved TMDL
Newport Bay, Upper (Ecological Reserve)	Indicator Bacteria	87.93 Acres	A Source Unknown	Being addressed with USEPA approved TMDL
Newport Bay, Upper (Ecological Reserve)	Malathion	87.93 Acres	A Source Unknown	TMDL required
Newport Bay, Upper (Ecological Reserve)	Nutrients	87.93 Acres	A Source Unknown	Being addressed with USEPA approved TMDL
Newport Bay, Upper (Ecological Reserve)	PCBs (Polychlorinated biphenyls)	87.93 Acres	See TMDL documentation	Being addressed with USEPA approved TMDL
Newport Bay, Upper (Ecological Reserve)	Sedimentation/Siltation	87.93 Acres	Agriculture Channel Erosion Construction/Land Development Erosion/Siltation	Being addressed with USEPA approved TMDL
Newport Bay, Upper (Ecological Reserve)	Toxicity	87.93 Acres	A Source Unknown	TMDL required
Newport Beach	Indicator Bacteria	3.47 Miles	A Source Unknown	TMDL required
Newport Slough	Indicator Bacteria	1 Miles	A Source Unknown	TMDL required
Peters Canyon Wash (Orange County)	Benthic Community Effects	6.77 Miles	A Source Unknown	TMDL required
Peters Canyon Wash (Orange County)	Copper	6.77 Miles	A Source Unknown	TMDL required
Peters Canyon Wash (Orange County)	DDT (Dichlorodiphenyltrichloroethane)	6.77 Miles	See TMDL documentation	Being addressed with USEPA approved TMDL
Peters Canyon Wash (Orange County)	Indicator Bacteria	6.77 Miles	A Source Unknown	TMDL required
Peters Canyon Wash (Orange County)	Malathion	6.77 Miles	A Source Unknown	TMDL required

Peters Canyon Wash (Orange County)	pH	6.77 Miles	A Source Unknown	TMDL required
Peters Canyon Wash (Orange County)	Selenium	6.77 Miles	Natural Sources	Being addressed with USEPA approved TMDL
Peters Canyon Wash (Orange County)	Toxaphene	6.77 Miles	See TMDL documentation	Being addressed with USEPA approved TMDL
Peters Canyon Wash (Orange County)	Toxicity	6.77 Miles	A Source Unknown	TMDL required
Rattlesnake Reservoir (Orange County)	pH	36.31 Acres	A Source Unknown	TMDL required
Rhine Channel	Copper	29.07 Acres	A Source Unknown	TMDL required
Rhine Channel	Lead	29.07 Acres	A Source Unknown	TMDL required
Rhine Channel	Mercury	29.07 Acres	A Source Unknown	TMDL required
Rhine Channel	PCBs (Polychlorinated biphenyls)	29.07 Acres	A Source Unknown	TMDL required
Rhine Channel	Toxicity	29.07 Acres	A Source Unknown	TMDL required
Rhine Channel	Zinc	29.07 Acres	A Source Unknown	TMDL required
San Diego Creek Reach 1	Benthic Community Effects	8.63 Miles	A Source Unknown	TMDL required
San Diego Creek Reach 1	Bifenthrin	8.63 Miles	A Source Unknown	TMDL required
San Diego Creek Reach 1	DDT (Dichlorodiphenyltrichloroethane)	8.63 Miles	See TMDL documentation	Being addressed with USEPA approved TMDL
San Diego Creek Reach 1	Indicator Bacteria	8.63 Miles	A Source Unknown	TMDL required
San Diego Creek Reach 1	Malathion	8.63 Miles	A Source Unknown	TMDL required
San Diego Creek Reach 1	Nitrogen	8.63 Miles	A Source Unknown	TMDL required
San Diego Creek Reach 1	Nutrients	8.63 Miles	A Source Unknown	Being addressed with USEPA approved TMDL
San Diego Creek Reach 1	Pyrethroids	8.63 Miles	A Source Unknown	TMDL required
San Diego Creek Reach 1	Sedimentation/Siltation	8.63 Miles	A Source Unknown	Being addressed with USEPA approved TMDL
San Diego Creek Reach 1	Selenium	8.63 Miles	A Source Unknown	TMDL required
San Diego Creek Reach 1	Toxaphene	8.63 Miles	See TMDL documentation	Being addressed with USEPA approved TMDL
San Diego Creek Reach 1	Toxicity	8.63 Miles	Unknown Nonpoint Source	Being addressed with USEPA approved TMDL
San Diego Creek Reach 2	Benthic Community Effects	4.99 Miles	A Source Unknown	TMDL required
San Diego Creek Reach 2	Indicator Bacteria	4.99 Miles	A Source Unknown	TMDL required
San Diego Creek Reach 2	Nutrients	4.99 Miles	Agriculture Groundwater Loadings Urban Runoff/Storm Sewers	Being addressed with USEPA approved TMDL
San Diego Creek Reach 2	Sedimentation/Siltation	4.99 Miles	Agriculture Channel Erosion Construction/Land Development Erosion/Siltation	Being addressed with USEPA approved TMDL
San Diego Creek Reach 2	Toxicity	4.99 Miles	Unknown Nonpoint Source	Being addressed with USEPA approved TMDL
San Pedro Bay Near Off Shore Zones	Chlordane	11848 Acres	See TMDL documentation Urban Runoff/Storm Sewers	Being addressed with USEPA approved TMDL
San Pedro Bay Near Off Shore Zones	Copper	11848 Acres	A Source Unknown	Being addressed with USEPA approved TMDL
San Pedro Bay Near Off Shore Zones	DDE (Dichlorodiphenyldichloroethylene)	11848 Acres	A Source Unknown	Being addressed with USEPA approved TMDL
San Pedro Bay Near Off Shore Zones	DDT (Dichlorodiphenyltrichloroethane)	11848 Acres	See TMDL documentation	Being addressed with USEPA approved TMDL

San Pedro Bay Near Off Shore Zones	PCBs (Polychlorinated biphenyls)	11848 Acres	A Source Unknown	Being addressed with USEPA approved TMDL
San Pedro Bay Near Off Shore Zones	Total DDT (sum of 4,4'- and 2,4'- isomers of DDT, DDE, and DDD)	11848 Acres	A Source Unknown	Being addressed with USEPA approved TMDL
San Pedro Bay Near Off Shore Zones	Toxicity	11848 Acres	A Source Unknown	Being addressed with USEPA approved TMDL
Sand Canyon Reservoir (Orange County)	pH	23.75 Acres	A Source Unknown	TMDL required
Santa Ana Delhi Channel	Chlordane	3.75 Miles	A Source Unknown	TMDL required
Santa Ana Delhi Channel	DDT (Dichlorodiphenyltrichloroethane)	3.75 Miles	A Source Unknown	TMDL required
Santa Ana Delhi Channel	PCBs (Polychlorinated biphenyls)	3.75 Miles	A Source Unknown	TMDL required
Seal Beach (Orange County)	Indicator Bacteria	1.59 Miles	A Source Unknown	TMDL required
Seal Beach (Orange County)	PCBs (Polychlorinated biphenyls)	1.59 Miles	A Source Unknown	TMDL required
Serrano Creek	Ammonia (Unionized)	7.44 Miles	A Source Unknown	TMDL required
Serrano Creek	Benthic Community Effects	7.44 Miles	A Source Unknown	TMDL required
Serrano Creek	Indicator Bacteria	7.44 Miles	A Source Unknown	TMDL required
Serrano Creek	pH	7.44 Miles	A Source Unknown	TMDL required
Serrano Creek	Toxicity	7.44 Miles	A Source Unknown	TMDL required
Siphon Reservoir (Orange County)	pH	23.53 Acres	A Source Unknown	TMDL required
Sunset Beach	Indicator Bacteria	1.84 Miles	A Source Unknown	TMDL required
Talbert Channel (Orange County)	Toxicity	5.48 Miles	A Source Unknown	TMDL required
Veeh Reservoir (Orange County)	Mercury	8.98 Acres	A Source Unknown	TMDL required

Water Quality Objectives

The following waterbodies are in or near HSA 801.11. Click on the waterbody to get information on water quality objectives and beneficial uses

Waterbody Name	Beneficial Uses	Sediment-Sensitive Waterbody
Anaheim Bay	ALL	False
Agua Chino Wash	GWR, REC1, REC2, WARM, WILD	False
Alamitos Bay	COMM, EST, IND, MAR, NAV, RARE, REC1, REC2, SHELL, WET, WILD	False
Alamitos Bay - Long Beach Marina - Public Beach Areas	AGR	False
Alamitos Bay - Long Beach Marina	COMM, MAR, RARE, REC1, REC2, SHELL	False
Alamitos Bay - Long Beach Marina - All Other Areas	COMM, MAR, RARE, REC1, REC2, SHELL	False
Alamitos Bay - Long Beach Marina - Public Beach Areas	COMM, MAR, NAV, RARE, REC1, REC2, SPWN	False
Alamitos Bay - Los Cerritos Channel Estuary	COMM, EST, IND, MAR, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
Alamitos Bay - Los Cerritos Wetlands	COMM, EST, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WET, WILD	False
Alamitos Bay - Los Cerritos Wetlands	AGR, AQUA, MUN, PROC	False
Alamitos Bay - San Gabriel River Estuary	COMM, EST, IND, MAR, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
Aliso Creek	AGR, REC1, REC2, WARM, WILD	False
Aliso Creek Mouth	MAR, RARE, REC1, REC2, WILD	False
All other minor San Gabriel Mountain streams tributary to San Gabriel Valley	ALL	False
Anaheim Bay - Outer Bay	BIOL, MAR, NAV, RARE, REC1, REC2, SPWN, WILD	False
Anaheim Bay - Seal Beach National Wildlife Refuge	BIOL, EST, MAR, RARE, REC1, REC2, SPWN, WILD	False
Anaheim Lake - Lower Santa Ana River Basin	GWR, REC1, REC2, WARM, WILD	False
Arroyo Seco S. of Devil's Gates. (L)	MUN, REC1, REC2, WARM, WILD	False
Ballona Creek	MUN, REC1, REC2, WARM, WILD	False
Bee Canyon Wash	GWR, REC1, REC2, WARM, WILD	False
Bixby Slough and Harbor Lake	MUN, RARE, REC1, REC2, WARM, WET, WILD	False
Black Star Creek	GWR, MUN, RARE, REC1, REC2, WARM, WILD	False

Blue Bird Canyon	AGR, REC1, REC2, WARM, WILD	False
Boat Canyon	AGR, REC1, REC2, WARM, WILD	False
Bolsa Bay	BIOL, COMM, MAR, RARE, REC1, REC2, SHELL, SPWN, WILD	False
Bolsa Chica Ecological Reserve	BIOL, EST, MAR, RARE, REC1, REC2, SPWN, WILD	False
Bonita Creek	GWR, REC1, REC2, WARM, WILD	False
Borrego Canyon Wash	GWR, REC1, REC2, WARM, WILD	False
Cabrillo Beach	COMM, MAR, MIGR, NAV, REC1, REC2, SHELL, SPWN, WILD	False
Colorado Lagoon	COMM, REC1, REC2, SHELL, WARM, WILD	False
Compton Creek	GWR, MUN, REC1, REC2, WARM, WET, WILD	False
Coyote Creek (within Santa Ana Regional boundary) - San Gabriel River Drainage	MUN, REC1, REC2, WARM, WILD	False
Coyote Creek to Estuary	IND, MUN, PROC, RARE, REC1, REC2, WARM, WILD	False
Dana Point Harbor	COMM, IND, MAR, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
Del Mar Boat Basin	COMM, IND, MAR, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
Dockweiler Beach	COMM, IND, MAR, NAV, REC1, REC2, SPWN, WILD	False
Dominguez Channel Estuary	COMM, EST, MAR, MIGR, NAV, RARE, REC1, REC2, SPWN, WILD	False
Dominguez Channel to Estuary	MUN, RARE, REC1, REC2, WARM, WILD	False
Echo Lake	MUN, REC1, REC2, WARM, WILD	False
El Dorado Lakes	MUN, REC1, REC2, WARM, WET, WILD	False
Elysian Reservoir	IND, MUN, PROC, REC1, REC2, WARM, WILD	False
Emerald Canyon	AGR, REC1, REC2, WARM, WILD	False
Encino Reservoir	IND, MUN, PROC, REC1, REC2, WARM, WILD	False
English Canyon	AGR, REC1, REC2, WARM, WILD	False
Hermosa Beach	COMM, MAR, NAV, REC1, REC2, SHELL, SPWN, WILD	False
Hicks Canyon Wash	GWR, REC1, REC2, WARM, WILD	False
Hobo Canyon	AGR, REC1, REC2, WARM, WILD	False
Irvine Lake (Santiago Reservoir)	ALL	False
Irvine Lake (Santiago Reservoir) - Lower Santa Ana River Basin	AGR, COLD, MUN, REC1, REC2, WARM, WILD	False
Ivanhoe Reservoir	IND, MUN, PROC, REC1, REC2, WARM, WILD	False
Jan Joaquin Freshwater Marsh Wetland (Inland)	BIOL, RARE, REC1, REC2, WARM, WILD	False
King Harbor	AGR, AQUA, MUN, PROC	False
LA - Long Beach Harbor - All Other Inner Areas	COMM, IND, MAR, NAV, RARE, REC1, REC2, SHELL	False
LA - Long Beach Harbor - Dominguez Channel Estuary	COMM, EST, MAR, MIGR, NAV, RARE, REC1, REC2, SPWN, WILD	False
LA - Long Beach Harbor - Los Angeles River Estuary	COMM, EST, IND, MAR, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WET, WILD	False
LA - Long Beach Harbor - Marinas	COMM, IND, MAR, NAV, RARE, REC1, REC2, SHELL	False
LA - Long Beach Harbor - Outer Harbor	COMM, MAR, NAV, RARE, REC1, REC2, SHELL	False
LA - Long Beach Harbor - Public Beach Areas	COMM, MAR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
Ladd Creek	GWR, MUN, RARE, REC1, SPWN, WARM, WILD	False
Laguna Canyon	AGR, REC1, REC2, WARM, WILD	False
Laguna Canyon Wash	GWR, REC1, REC2, WARM, WILD	False
Laguna Stream - Lower Santa Ana River Basin	AGR, REC1, REC2, WARM, WILD	False
Lambert Stream - Lower Santa Ana River Basin	AGR, REC1, REC2, WARM, WILD	False
Lincoln Park Lake	MUN, REC1, REC2, WARM, WILD	False
Long Beach	COMM, MAR, MIGR, NAV, REC1, REC2, SHELL, SPWN, WILD	False
Los Angeles River	GWR, IND, MUN, REC1, REC2, WARM, WILD	False
Los Angeles River Estuary	COMM, EST, IND, MAR, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WET, WILD	False
Los Angeles River to Estuary	GWR, IND, MAR, MIGR, MUN, PROC, RARE, REC1, REC2, SHELL, SPWN, WARM, WILD	False
Los Cerritos Channel Estuary	COMM, EST, IND, MAR, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
Los Cerritos Channel to Estuary	MUN, REC1, REC2, WARM, WILD	False
Los Cerritos Wetlands	COMM, EST, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WET, WILD	False
Lower Newport Bay	BIOL, COMM, MAR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
Madrona Marsh	REC1, REC2, WARM, WET, WILD	False
Manhattan Beach	COMM, MAR, NAV, REC1, REC2, SHELL, SPWN, WILD	False
Marine Stadium	COMM, MAR, RARE, REC1, REC2, SHELL	False
Mission Bay	COMM, EST, IND, MAR, MIGR, RARE, REC1, REC2, SHELL, WILD	False
Moro Canyon	AGR, REC1, REC2, WARM, WILD	False
Nearshore Zone - Poppy Street to Southeast Regional Boundary	BIOL, COMM, MAR, MUN, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False

Nearshore Zone - San Gabriel River to Poppy Street in Corona Del Mar	COMM, IND, MAR, MUN, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
Oceanside Harbor	COMM, IND, MAR, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
Offshore Zone - Water between Nearshore Zone and Limit of State Waters	COMM, IND, MAR, MUN, NAV, RARE, REC1, REC2, SPWN, WILD	False
Pacific Ocean	AQUA, BIOL, COMM, IND, MAR, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
Peters Canyon Streams - Lower Santa Ana River Basin	AGR, REC1, REC2, WARM, WILD	False
Peters Canyon Wash	GWR, REC1, REC2, WARM, WILD	False
Rattlesnake Canyon Wash	GWR, REC1, REC2, WARM, WILD	False
Rattlesnake Stream - Lower Santa Ana River Basin	AGR, REC1, REC2, WARM, WILD	False
Redondo Beach	COMM, IND, MAR, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
Rim Rock Canyon	AGR, REC1, REC2, WARM, WILD	False
Rio Hondo below Spreading Grounds	GWR, MUN, REC1, REC2, WARM, WILD	False
Rio Hondo to Spreading Grounds	GWR, MUN, REC1, REC2, WARM, WILD	False
San Diego Bay	BIOL, COMM, EST, IND, MAR, MIGR, NAV, RARE, REC1, REC2, SHELL, WILD	False
San Diego Creek Reach 1 - below Jeffrey Road	REC1, REC2, WARM, WILD	False
San Diego Creek Reach 2 -above Jeffrey Road to Headwaters	GWR, REC1, REC2, WARM, WILD	False
San Gabriel River Estuary	COMM, EST, IND, MAR, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
San Gabriel River, Firestone Blvd-Estuary	MUN, REC1, REC2, WARM, WILD	False
San Gabriel River, Whittier N-Firestone	GWR, IND, MUN, PROC, RARE, REC1, REC2, WARM, WILD	False
Sand Canyon Streams - Lower Santa Ana River Basin	AGR, REC1, REC2, WARM, WILD	False
Sand Canyon Wash	GWR, REC1, REC2, WARM, WILD	False
Santa Ana River Reach 1 - Tidal Prism to 17th Street in Santa Ana	BIOL, REC1, WARM	False
Santa Ana River Reach 1- Tidal Prism to 17th Street in Santa Ana	REC2, WILD	False
Santa Ana River Reach 2 - 17th Street in Santa Ana to Prado Dam	AGR, GWR, RARE, REC1, REC2, WARM, WILD	False
Santa Ana River Salt Marsh	BIOL, EST, MAR, RARE, REC1, REC2, WILD	False
Santiago Creek Reach 1 - below Irvine Lake	GWR, MUN, REC1, REC2, WARM, WILD	False
Santiago Creek Reach 3 - Irvine Lake to Modjeska Canyon	GWR, MUN, REC1, REC2, WARM, WILD	False
Santiago Creek Reach 4 - in Modjeska Canyon	GWR, MUN, REC1, REC2, WARM, WILD	False
Serrano Creek	GWR, REC1, REC2, WARM, WILD	False
Silver Lake Reservoir	IND, MUN, PROC, REC1, REC2, WARM, WILD	False
Silverado Creek	GWR, MUN, REC1, REC2, WARM, WILD	False
Sims Pond	MUN, REC1, REC2, WARM, WET, WILD	False
Siphon Reservoir - Lower Santa Ana River Basin	AGR, REC1, REC2, WARM, WILD	False
Streams of Palos Verdes	GWR, MUN, RARE, REC1, REC2, WARM, WILD	False
Sulphur Creek	AGR, REC1, REC2, WARM, WILD	False
Sunset Bay - Huntington Harbor	COMM, MAR, NAV, RARE, REC1, REC2, SPWN, WILD	False
Tidal Prism of Flood Control Channels Discharging to Coastal or Bay Waters	COMM, MAR, REC1, REC2, WILD	False
Tidal Prism of San Gabriel River - River Mouth to Marina Drive	COMM, EST, IND, MAR, RARE, REC1, REC2, SHELL, WILD	False
Tidal Prism of Santa Ana River (to within 1000' of Victoria St.) & Newport Slough	COMM, MAR, RARE, REC1, REC2, WILD	False
Torrance Beach	COMM, MAR, MIGR, NAV, REC1, REC2, SHELL, SPWN, WILD	False
Unnamed intermittent coastal streams	AGR, REC1, REC2, WARM, WILD	False
Unnamed intermittent coastal streams	AGR, REC1, REC2, WARM, WILD	False
Upper Newport Bay	BIOL, COMM, EST, MAR, RARE, REC1, REC2, SHELL, SPWN, WILD	False
Wood Canyon	AGR, REC1, REC2, WARM, WILD	False

Caltrans Facilities

MAINTENANCE STATIONS

Name	Address
Bolsa Chica	13072 Bolsa Chica Road
Orange Region	1808 North Batavia Street
Orange	691 South Tustin Street
Stanton	8122 Katella Avenue
Costa Mesa	1090 Bristol Street

FREEWAYS AND HIGHWAYS

Route Length (miles)	
1	21.8
5	19.7
22	13.8
39	11.6
55	17.5

District 12 Office 3347 Michelson Dr Suite 100
Marina Way 6641 Marina Way
Toll Road 6685 Marina Way

57 5.7
73 9.6
91 1.4
133 8.5
241 9.4
261 6.2
405 20.9

PARK & RIDE LOTS

Name	District	County	Route	Post Mile
NEWPORT BEACH TRANSP. CENTER	12	ORA	1	16.4
SOUTH COAST PLAZA	12	ORA	405	9.889
KING OF GLORY LUTHERAN CHURCH	12	ORA	405	13.8
MILE SQUARE PARK	12	ORA	405	14.796
CHURCH OF THE NAZARENE	12	ORA	22	R6.811
SHEPHERD OF PEACE LUTHERAN CHURCH	12	ORA	405	5.6
FED. SOUTHWEST REGIONAL RESEARCH	12	ORA	405	20.971
UNITED METH. CTR. OF GOOD SHEPHERD	12	ORA	405	16.671
GOLDEN WEST TRANS. CENTER	12	ORA	405	17.001
LINCOLN	12	ORA	55	16.914
JEFFREY	12	ORA	5	R24.805

REST AREAS

Name District County Route Post Mile

Additional Information

- [Help](#) for the Water Quality Planning Tool
- [Precipitation Frequency](#) data from NOAA ATLAS 14
- [TMDL](#) information from the SWRCB
- [Construction General Permit Order 2009-0009-DWQ](#) information from the SWRCB
- [2022 Construction Stormwater General Permit Reissuance](#) information from the SWRCB
- [Risk level determination worksheet](#) from the SWRCB
- [Groundwater Depth](#) information from the California Department of Water Resources
- R Factor erosivity [calculations](#) from the EPA