

BALLONA CREEK

Los Angeles County

GEOGRAPHIC RESPONSE PLAN OIL SPILL RESPONSE



CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
OFFICE OF SPILL PREVENTION AND RESPONSE



MARCH 2019



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Spill Response Contact Sheet

* Staffed 24-Hours/Day

Immediate Emergency Notifications for Oil Spills & Hazardous Substance Releases: Call Upon Discovery of Spill

Local Emergency Response Agencies	911*
State Notification - California State Warning Center (CSWC) State Law requires that ANY discharge or threatened discharge of oil into STATE WATERS must be reported to the CSWC immediately. †	(800) 852-7550*
Certified Unified Program Agency (CUPA) (CSWC Spill Report will be emailed to CUPA as part of their immediate notification) Los Angeles County Fire Department Health and Hazardous Materials	(323) 890-4045*
Federal Notification - National Response Center (as appropriate): If the spill equals or exceeds Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Federal Reportable Quantities. ‡Federal Reportable Quantities: http://www.epa.gov/superfund/policy/release/rq/index.htm	(800) 424-8802*

Infrastructure Emergency Notification: Promptly Notify

Railroad, Pipeline, Fixed Facilities		Highways, Utilities, Dams, Other Infrastructure	
Los Angeles County Metropolitan Transportation Authority	(800) 396-2166*	California Highway Patrol (as appropriate) (The California Highway Patrol must be notified for spills occurring on highways in the State of California.)	911* (310) 642-3939 (Culver City)
City of Los Angeles Office of Petroleum and Natural Gas	311* (213) 978-1697		
Chevron Pipeline	(800) 762-3404*	County of Los Angeles Department of Public Works Ballona Wetlands tidal gates	(562) 861-0316 (626) 458-4357*
Crimson Pipeline	(866) 351-7473*	City of Los Angeles Recreation and Parks Del Rey Lagoon tidal gates	Jim Muff, primary (818) 441-2874* Kent Hesselgrave, backup: (213) 216-4325*
PBF Logistics Pipeline	(281) 602-4220*		
Shell Pipeline	(800) 367-7752*		
Tesoro SoCal Pipeline	(800) 435-1371*		

Oil Spill Response Agency Notifications: Promptly Notify

CDFW Office of Spill Prevention and Response (OSPR)		Oiled Wildlife Care Network	
OSPR Dispatch - Report Oil Spills	(800) 852-7550* or (800) OILS-911*	OWCN Activation/Oiled Wildlife Hotline	(877) UCD-OWCN (877) 823-6926*
Local Fire and Law Enforcement		U.S. Environmental Protection Agency	
City of Los Angeles Police Department Pacific Division	(310) 482-6334*	Emergency Response	(800) 300-2193*
City of Culver City Police Department	(310) 837-1221*		
County of Los Angeles Sheriff Department	(310) 482-6000*		
City of Culver City Fire Department	(310) 839-1146*		
City of Los Angeles Fire Department	(213) 847-5340*		
City of Santa Monica Fire Department Haz Mat Team	(310) 458-8671*		
Local Government (City and County)		CALFIRE Office of the State Fire Marshal	
County of Los Angeles Office of Emergency Management	(323) 980-2260*	24-Hour Duty Chief	(916) 323-7390*
County of Los Angeles Public Health - Environmental Health	Call CUPA	On-Call Pipeline Safety Engineer	
City of Los Angeles Emergency Management Department	(213) 484-4800 (213) 200-6414*		
Los Angeles County Department of Beaches and Harbors	(424) 526-7777		
		Doug Allen	(916) 591-0699

Affected or Adjacent Agencies to Notify Early-On as Appropriate; If In Doubt, Notify

Utilities, Dams, Hydroelectric, Infrastructure (non-emergency)	
Los Angeles Department of Water & Power	(800) 342-5397*
Southern California Edison	(800) 611-1911*
SoCal Gas	(800) 427-2200*

Water Districts, Water Intakes and County Water Agencies	
Metropolitan Water District	(213) 217-6000*
Los Angeles Department of Water & Power	(800) 342-5397*

Public Works and Traffic Control	
City of Los Angeles Department of Public Works	311*
County of Los Angeles Department of Public Works	(562) 861-0316 (626) 458-4357*
City of Culver City Public Works	(310) 253-6420

Additional Contact Information as Appropriate; If In Doubt, Notify

Federal Agencies	
U.S.D.A. Forest Service: Forest Spill Coordinator, Belinda Walker, Asst. Regional Environmental Engineer	(909) 229-5201
U.S. Coast Guard, Sector LA/LB	(310) 521-3805
U.S. Fish & Wildlife Service	
Local USFWS Spill Responder, Carlsbad Office Primary, Carol Roberts	(760) 431-9440 x271 (760) 607-9768 cell
1st Alternate, Katie Zeeman	(760) 431-9440 x291

State Agencies	
Calif. Environmental Protection Agency: Greg Vlasek, Assistant Secretary for CUPA's and Emergency Response	(916) 322-7188
CAL FIRE - Office of the State Fire Marshal, Pipeline Safety	
<i>Sacramento</i>	(916) 263-6300
<i>Lakewood/Southern California</i>	(562) 497-0350
<i>Bakersfield</i>	(661) 665-0107
State Water Resources Control Board, District 22, Angeles	(818) 551-2004
Regional Water Quality Control Board Los Angeles Region 4	(213) 576-6600
Calif. Department of Water Resources, State Water Project Operations Center	(916) 574-2714*
Geologic Energy Management Division (CalGEM, formerly DOGGR)	(562) 637-4400*
CAL FIRE - Department of Forestry and Fire Protection	
<i>Southern Region Operations, Riverside</i>	(951) 782-4140
Calif. Department of Transportation District 7	(213) 897-3656
Dockweiler State Beach, RV Park	(310) 322-4951
Dockweiler State Beach, Youth Center	(310) 726-4128
Calif. Dept. Toxic Substance Control, Emergency Response Duty Officer	(800) 260-3972 (800) 852-7550*

Tribal and Historic Contacts	
Native American Heritage Commission (NAHC)	(916) 373-3710
<i>Katy Sanchez</i>	(916) 373-3710
<i>Steven Quinn</i>	(916) 373-3710
Stacy St. James, Cal State Fullerton, South Central Coastal Information Center [California Historic Resources Information System (CHRIS)]	(657) 278-5395

Individual tribal contacts can be found on page 93

Emergency Response Resources	
Ambulance Service	911*
Southern California Hospital Culver City	(310) 836-7000*
Marina Del Rey Hospital, Cedars Sinai	(310) 823-8911*
Los Angeles International Airport	(855) 463-5252
Santa Monica Municipal Airport	(310) 458-8591

State and Federally Managed Lands	
Ballona Wetlands Ecological Reserve	(310) 455-3243

Emergency Response Resources, Continued

* Staffed 24-Hours/Day

CHEMTREC 24-Hour Hotline	(800) 424-9300*
Poison Control Centers 24-Hour Hotline	(800) 222-1222*

CHEMTREC provides emergency information for chemical releases and fire control measures, assistance with chemical identification, and notification of manufacturer and/or shipper

Poison Control Centers provide poison/exposure information to emergency personnel and the public and has regional hospital capabilities for exposed victims. Calls are automatically forwarded to the nearest center: Sacramento, San Francisco, Fresno, and San Diego.

†California State Warning Center (California Governor's Office of Emergency Services, Cal OES)

State Law requires that ANY discharge or threatened discharge of oil into STATE WATERS must be reported to Cal OES [California Government Code (GC) §8670.25.5; California Water Code (WC) §13272, California State Oil Spill Contingency Plan]. If the release of oil is on land and is not discharged or threatening to discharge into State Waters; and (a) does not cause harm or threaten to cause harm to the public health and safety, the environment, or property; AND (b) is under 42 gallons, then no notification to the CSWC is required.

‡National Response Center

All spills of oil or hazardous substance into navigable waters as defined by the Clean Water Act (CWA) and all spills of a reportable quantity of hazardous substances (40 CFR Part 302) must be immediately reported by the spiller to the National Response Center (NRC). The web address for reportable quantities under CERCLA can be found here: <https://www.epa.gov/emergency-response/when-are-you-required-report-oil-spill-and-hazardous-substance-release>. The NRC will contact appropriate local US Coast Guard (USCG) or Environmental Protection Agency (EPA) offices. Notifying state offices does not relieve the spiller from federal requirements to notify the NRC nor vice versa.

Contingency Plan holders in the State of California must begin notification procedures within 30 minutes of learning of a spill and must complete notifications to CalOES, NRC, QI, OSRO, SMT, and if there is a threat to wildlife, OWCN, within 2 hours from the initiation of making notifications.

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Before you print this document:

This document is intended, and designed, to be printed out on 2-sided pages.

The following pages are provided in “landscape” orientation, 8.5 x 11:

- Chapter 1, Figure 1-2, pages 5-6
- Chapter 3, Figure 3-1, pages 23-24
- Chapter 3, Figure 3-2, pages 33-34
- Chapter 3, Figure 3-3, pages 45-46
- Chapter 3, Figure 3-4, pages 55-56
- Chapter 4, Table 4-1 on pages 83 – 88

The following pages are provided in “landscape” orientation, paper size 11 x 17:

- Chapter 3, Table 3-1, pages 27-28

The following pages are provided in “portrait” orientation, 8.5 x 14:

- Appendix F, Table F-2, pages 115-116

All other chapters and appendices are oriented in “portrait,” 8.5 x 11.

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Ballona Creek Geographic Response Plan

Purpose and Use of this Plan

This Geographic Response Plan (GRP) has been developed for inland waters of California by the California Department of Fish and Wildlife (CDFW), Office of Spill Prevention and Response (OSPR). This GRP includes response strategies, response methods, and shoreline countermeasures to be used by spill response personnel to rapidly and efficiently address releases or threatened oil spill releases to Ballona Creek. This GRP was developed to facilitate oil spill response preparedness and to expedite spill response activities in the GRP coverage area and is meant to aid the response community during the initial phase of an oil spill. The GRP provides tactical response strategies and identifies available access to the shoreline. By using this document, it is hoped that immediate and proper action can be taken to reduce impacts that oil may have on the environment as well as sensitive resources in the area.

The strategies shown in this GRP were developed using the best information available at the time of preparation. However, no one strategy can effectively address all environmental conditions considering seasonal, annual, and localized site-specific conditions. An on-site evaluation of actual conditions is often needed to determine whether a response strategy is safe to deploy and whether it will be effective under existing environmental conditions or effective for the particular type of oil involved. Responders must use on-scene judgment based on real-time observations to ensure a safe and effective response. The strategies discussed in this GRP have been designed for use with persistent oils that float on water and may or may not be suitable for other oil products or hazardous substances.

After a spill occurs, efforts to control and contain the spill at or near the source should be a top priority. Beyond those efforts, the appropriate booming, damming and notification strategies provided in [Chapter 3](#) of this GRP should be implemented as soon as possible, unless overflight information, spill trajectory models, or circumstances unique to a particular spill situation dictate otherwise. From an operational perspective, this GRP offers guidance to responders during the initial phases of an oil spill by:

- Providing tactical response strategies to be implemented during the early hours of an oil spill.
- Providing detailed information for booming and damming strategies that could be utilized to minimize impacts on predetermined sensitive resources.
- Providing sufficient information for responders to prepare initial ICS 201, 208, and 232 documents and the initial Incident Action Plan (IAP).

OSPR is responsible for long-term maintenance of this GRP; it will be updated and maintained periodically to ensure the information contained within remains current and relevant. The first maintenance cycle will be at Year 3 after its original release, and thereafter, every 5 years. Contact information will be updated on an annual basis and provided as an addendum.

Purpose

1. This GRP establishes spill response guidance for oil spill incidents occurring within the Ballona Creek area from northeast of Culver City to the Pacific Ocean, all within Los Angeles County and Local Emergency Planning Committee (LEPC) Region I.
2. This GRP is the principal guide for response personnel, response organizations and agencies within the GRP boundary area, its incorporated cities, and other local government entities responding to and minimizing the impacts of oil spill incidents. This GRP is intended to facilitate multi-agency and multi-jurisdictional coordination, pursuant to the Incident Command System (ICS) among local, state, and federal agencies, as well as the responsible party (RP), in oil spill incidents.
3. This GRP is an operational plan as well as a reference document. It may be used for pre-spill planning and actual spill response. Agencies with jurisdictional roles and responsibilities for oil spills are encouraged to develop standard operating procedures (SOPs) and spill response checklists based on the provisions of this GRP.

Response Strategy Selection

The bulk of this GRP is contained in [Chapter 3](#). It provides information on response strategies including detail sheets with specific information on each identified response site and access/observation site. The response strategies have been identified by available access points and the amount of oil spill response resources that can be deployed from those locations. Operational division and segment maps as well as information on staging areas are also provided in the chapter. When a spill occurs, the response strategies provided in [Chapter 3](#) should be implemented as soon as possible. Unless circumstances unique to a particular spill situation dictate otherwise, the matrix in Section 3.4 of the chapter should be used to determine strategy deployment locations. The movement of oil on water and the time it takes to mobilize response resources to deploy GRP strategies must always be considered when setting strategy implementation priorities.

Once the Unified Command (UC) is formed, additional operational strategies and tactics should be relayed to response personnel in the field in the form of the ICS 204 assignment list. Because GRPs are one of the primary strategy tools used during an initial phase of the response and are fairly broad in their scope, they are not intended to minimize impacts on all possible sensitive areas that could be affected by an oil spill. Likewise, this GRP is not intended to be an exhaustive list for all of the tactical strategies that could, or should, be implemented during a spill.

Guiding Principles for GRPs

1. The safety and health of responders always takes precedence over the protection of sensitive environmental or economic resources.
2. Source control and containment are always a higher priority over GRP strategy deployments but should occur concurrently if resources are available.
3. Environmental conditions (wind, currents, and tides), together with the physical limitations of existing spill response technology, may preclude the effective protection of some areas.
4. Once a coordinated response has been established during an oil spill incident, booming strategy selection and prioritization are refined and supplemented based on real-time assessments. The UC has the authority to supersede the strategies proposed in this GRP.
5. Response personnel may find it necessary to deviate from the exact details provided for deploying a particular response strategy; response personnel should use their best judgment to modify existing strategies based on real-time conditions and notify UC accordingly. Response personnel should notify the Planning and/or Operations Section staff regarding any opportunities for deploying additional strategies that might be used to take advantage of incident-specific conditions.

Control and Containment of an Oil Spill at the Source is a Higher Priority than the Implementation of GRP Response Strategies

In the responder's best judgment, if control and initial containment of an oil spill at the source is not feasible or the source is controlled but oil has spread beyond initial containment, then the response strategies laid out in [Chapter 3](#) of this GRP take precedence until a UC is formed. Spill response priorities beyond those described in this GRP should be based upon observations and spill trajectory information. During a spill, modifications to the strategies provided in [Chapter 3](#) of this GRP may be made if approved by the Incident Commander (IC) or UC.

Resources-At-Risk

[Chapter 4](#) of this GRP outlines information on the environmental, economic, and tribal, cultural and historic resources-at-risk in the area that could be injured or damaged if impacted by oil or cleanup operations, and key contacts for notification. [Chapter 4](#) also provides information on oiled wildlife, wildlife avoidance measures, and the Wildlife Response Plan developed by OSPR in coordination with the Oiled Wildlife Care Network (OWCN) and other trustee agencies.

Appendices

The appendices section provides information on site description, local and regional assets for oil spill response equipment, and other relevant emergency response documents for the area.

Companion Manual

The GRP Companion Manual ([GRP CM](#)) contains information common to all GRPs. The [GRP CM](#) Sections include response methods, shoreline cleanup, applied response technologies, waste management, mutual aid, volunteers, and procedures for the discovery of human remains and cultural and historic resources.

Standardized Response Language

In order to avoid confusion, this GRP uses standard National Incident Management System, Incident Command System (NIMS ICS) terminology.

Drills and Exercises

If an equipment deployment drills program [similar to the Sensitive Site Strategy Evaluation Program (SSSEP) for Area Contingency Plans (ACPs)] is developed for inland GRPs, a corresponding section will be added to this GRP. As appropriate, this GRP can be exercised during tabletop drills with contingency plan holders to test the efficiency and user-friendly aspects of the document and make suggestions for updates as necessary.

Ballona Creek Geographic Response Plan

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Ballona Creek Geographic Response Plan

Chapter 1 – Introduction

1.0 Introduction

OSPR is developing GRPs for inland waters of California. These plans are being prepared for the State of California and will be the responsibility of OSPR. GRPs are being developed through committees, workshops, and meetings with federal, state, and local oil spill emergency response experts, tribal representatives, industry, local governments, first responders, and environmental organizations. Please see [Appendix A](#) for the list of contributors who helped to develop the structure and content of this GRP.

This GRP serves as guidance for federal and state on-scene coordinators and first responders during the initial phase of an oil spill response. This plan has been developed for Ballona Creek within the limits of Los Angeles County (Figure 1-1). The upper extent of the GRP boundary is where Ballona Creek officially begins, where the creek daylights northeast of Culver City (Figure 1-2). The lower extent is where the creek meets the ocean in Santa Monica Bay. Two feeder creeks are included within the GRP boundary, Sepulveda Channel and Centinela Channel, both are concrete lined. The expanded boundary near Loyola is the historic watercourse, also part of the Ballona Wetland, and the newly defined watercourse at the toe of the slope of Loyola (north of Loyola/south of Ballona Creek) is part of recent urban development in the area. The defined boundary includes the wetlands of Ballona Reserve and encompasses an area of approximately 8.8 river miles.

An area site description and information on physical features, hydrology, winds, climate, and risk are included in [Appendix B](#) of this document.

Changes and updates to this document are expected as response strategies are optimized through drills, site visits, and use in actual spill situations. OSPR values stakeholder input and welcomes suggestions about how the plan might be improved. Please submit comments by mail using the form and information provided in [Appendix C](#) of this document or through the email address provided for the GRP contact on the OSPR Website at <http://www.wildlife.ca.gov/OSPR/Contingency>. A Record of Changes, [Appendix D](#), will be kept as updates are made.

Other Relevant Emergency Response Plans can be found in [Appendix E](#); for the Ballona Creek GRP, this includes emergency plans for Los Angeles County, the City of Los Angeles, Culver City, the Los Angeles/Long Beach Area Contingency Plan, and the State Oil Spill Contingency Plan.

1.1 Authority

State Government

The Administrator of OSPR has the primary authority to serve as the state incident commander, State On-Scene Coordinator (SOSC), and direct the removal, abatement, response, containment, and cleanup efforts, including decisions regarding the utilization of in-situ burning, dispersants, and cleanup agents, with regard to all aspects of any oil spill into marine and inland surface waters of the state, but not ground waters. This authority may be delegated. [FGC §5655(d), §5655(e)(2); GC §8670.62, §8670.7].

Federal Government

The U.S. Environmental Protection Agency (USEPA) shall provide a Federal On-Scene Coordinator (FOSC) for discharges or releases into or threatening the inland zone. The term inland zone, defined as the environment inland of the coastal zone, delineates an area of federal responsibility for response action. The U.S. Coast Guard (USCG) shall provide an FOSC for oil discharges within or threatening the coastal zone. Precise boundaries are determined by USEPA/USCG agreements and identified in federal regional contingency plans. The boundary in California typically follows Highway 1 and includes the San Francisco Bay and Sacramento-San Joaquin Delta, as part of the coastal zone. National Contingency Plan (NCP) – 40 CFR §300.120.

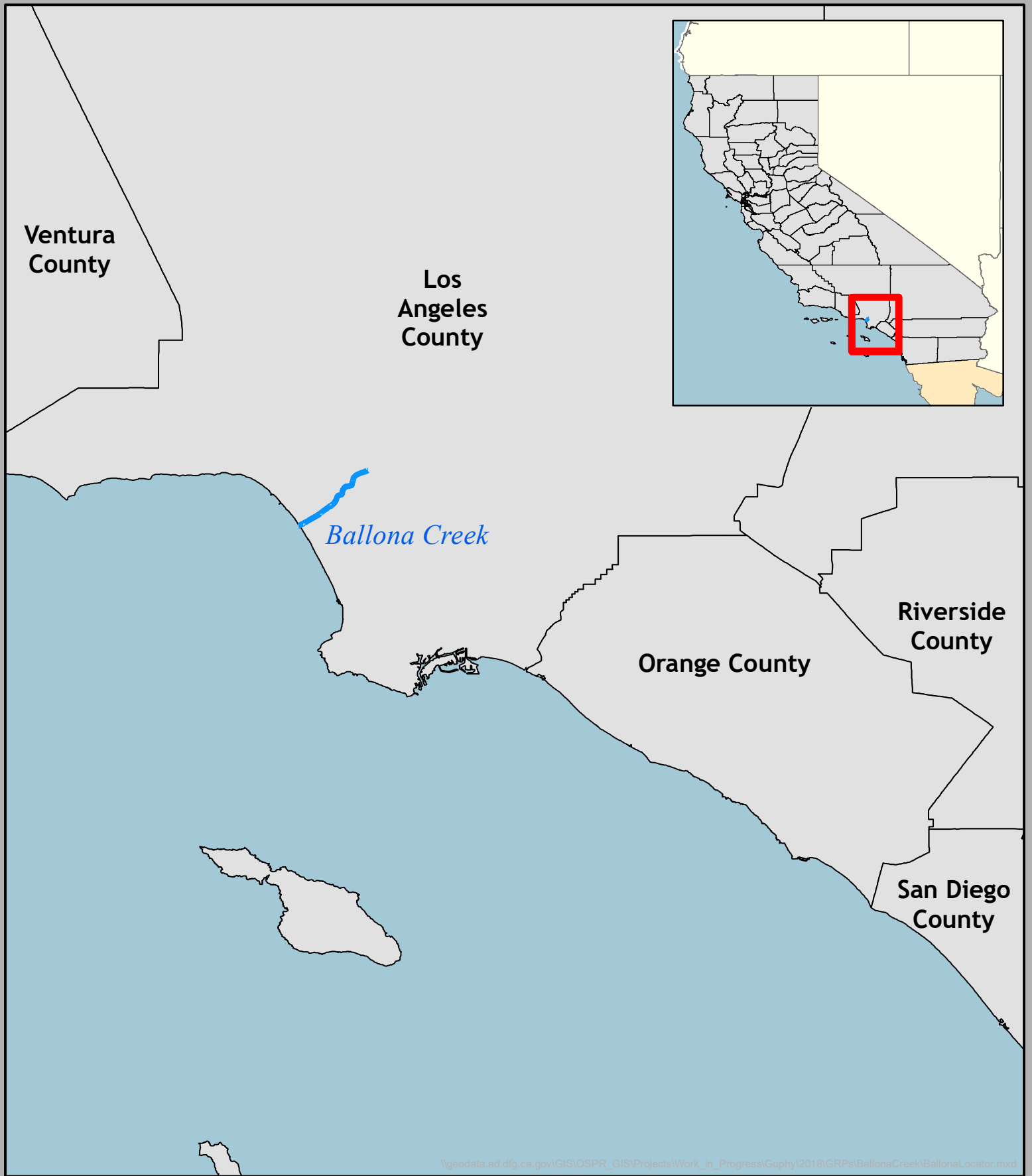
Responsible Party

The Responsible Party (RP) has the primary responsibility to conduct spill cleanup following the procedures listed in their facility (i.e. fixed facility, pipeline, railroad) response plan. The basic framework for the response management structure is a system (e.g., NIMS Incident Command System) that brings together the functions of the federal government, the state government, and the responsible party to achieve an effective and efficient response, where the FOSC maintains authority. The RP will participate in the UC alongside the FOSC and SOSC [and Local Government On-Scene Coordinator (LGOSC) if requested]. National Contingency Plan - 40 CFR §300.105(d), (e)(1) Figure 1a, and §300.135(d).

Local Government

When an oil spill occurs, the UC (OSC's and RP) will evaluate the nature and severity of the spill, jurisdictions that may be affected, potential for public involvement, and need for local agency support. The UC may exercise the option to appoint an LGOSC as a participant within the UC. National Contingency Plan, §300.135(d).

Figure 1-1: Ballona Creek GRP Location Map

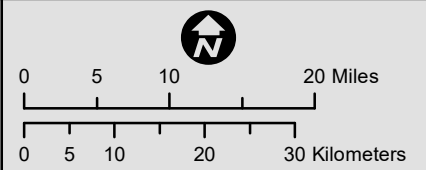


 Calif. Dept. of Fish and Wildlife
Office of Spill Prevention and Response

Data Source: CDFW-OSPR, NHD (USGS)
Requestor: OSPR
Author: S. Paine
Date Created: 02/12/2019

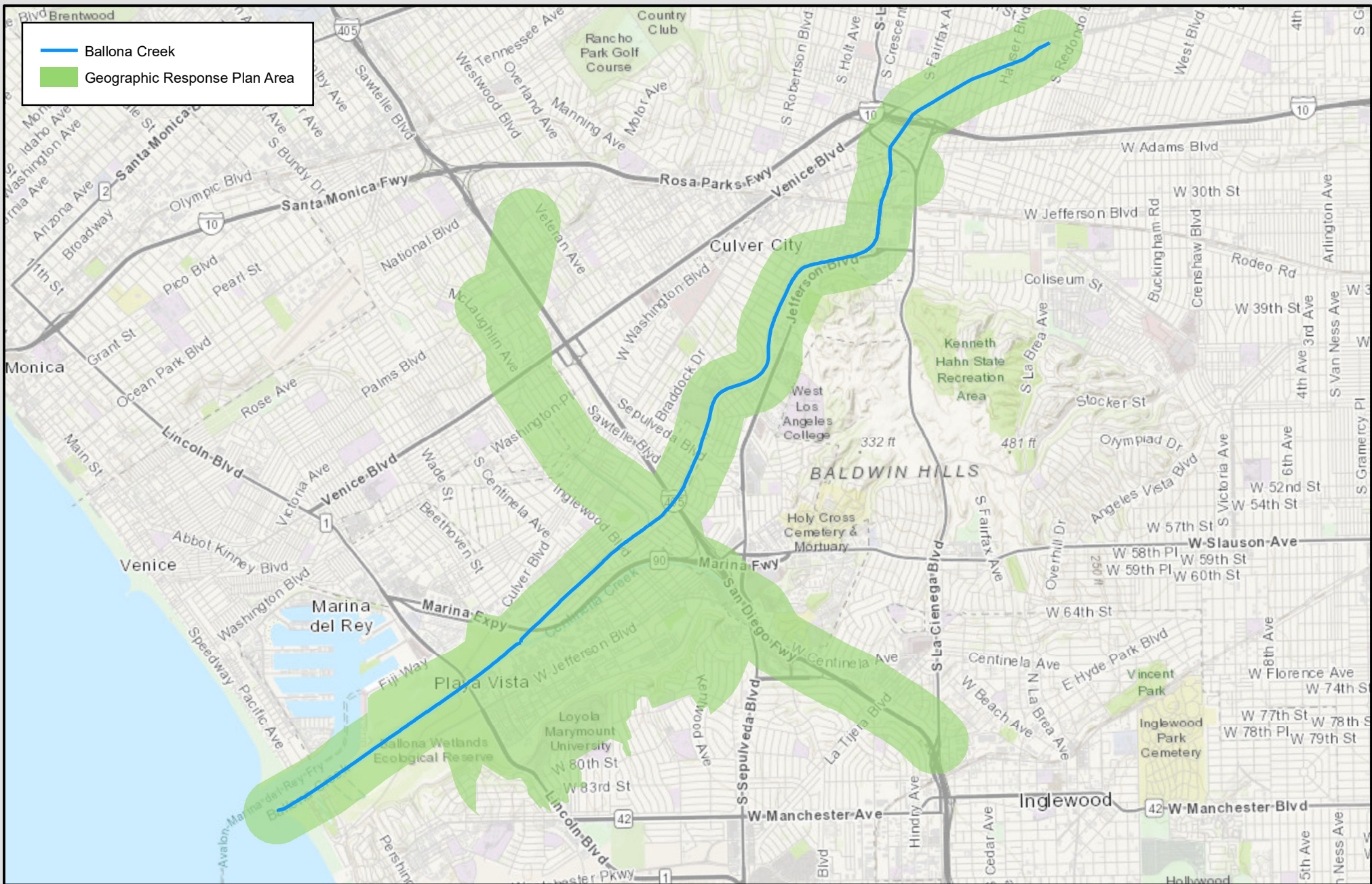
NAD_1983_California_Teale_Albers


Ballona Creek Geographic Response Plan Location



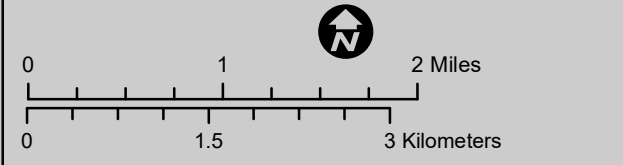
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Figure 1-2: Ballona Creek GRP Area Waterway Map




Calif. Dept. of Fish and Wildlife
 Office of Spill Prevention and Response
 Data Source: CDFW-OSPR
 Requestor: OSPR
 Author: G. Ewing
 Date Created: 8/20/2018
 NAD_1983_California_Teale_Albers

Ballona Creek Geographic Response Plan Area Waterway Area



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Ballona Creek

Geographic Response Plan

Chapter 2 - Emergency Management, Incident Objectives, and Response Considerations

2.0 Chapter Overview

This chapter discusses the emergency management aspect of an oil spill as it applies to first responders and the public. This chapter includes information on site safety, site assessment, responder and public safety, and area and traffic control. Public Health, including information on Certified Unified Program Agencies (CUPAs) and fisheries closures, are discussed below along with response equipment availability and on-site considerations.

California's emergency assistance is based on a statewide mutual aid system designed to ensure additional resources are provided to the state's political subdivisions whenever their own resources are overwhelmed or inadequate. Mutual Aid is discussed below in Section 2.12 as well as in the [GRP CM](#).

The first emergency responder to arrive at the incident site will assume the role of IC. The primary responsibility of this first responder is to protect the health and safety of the public (including potential responders) at the scene. As additional IC's from local, state, and federal agencies, or the RP, arrive on-scene, they will be incorporated into a UC, as appropriate.

Upon arrival, the IC will establish an Incident Command Post (ICP) a safe distance from the incident until hazards are removed, controlled, or neutralized. The location of the ICP should be far enough away from the incident to avoid contamination or other dangers, and close enough to the incident to maintain reasonable contact with operational personnel.

The IC will be responsible for coordinating multi-agency operations (e.g., fire, sheriff, highway patrol, etc.). All emergency responders shall report to the ICP or the staging area as designated by the IC immediately upon arrival to the scene. All emergency response operations (spill identification, containment, etc.) shall be coordinated through the IC or a duly appointed Operations Section Chief.

Incident Objectives

In order for spill response personnel to evaluate the oil product and take appropriate emergency actions to save lives, reduce injuries, and prevent or minimize damage to the environment and property, the following actions should be taken:

1. Provide for the safety and security of responders and maximize the protection of public health and welfare.
2. Conduct an operational risk assessment, secure the source and affected area, isolate the hazard, and deny the entry of unauthorized persons into the area.
3. Identify and report the oil spill to appropriate agencies.
4. Provide rapid and effective warning, information, and instructions to threatened populations.
5. Implement response strategies, deploy spill response equipment, commence shoreline countermeasures, and return to normal conditions as quickly as possible.

2.1 Safety

The primary responsibility of the first emergency responder to arrive at the incident site is to protect the health and safety of the public and responders on scene. This protection will be accomplished by restricting access to the scene, initiating containment if it can be done safely, and isolating contaminated persons and materials until arrival of the supporting agencies.

Rendering emergency care and initiating decontamination of affected persons is always a high priority but only if it is within the first responder's level of training and only if it can be done safely.

Site perimeter security and traffic control are the responsibility of the law enforcement agency with traffic investigation authority and should be initiated as soon as possible to minimize contamination of citizens and to allow first responder crews to perform their tasks without interference. The following guidance, considerations, and actions are to provide for the safety of responders and the public during an oil spill incident:

Responder Safety

- **Resist Rushing In!** Respond safely, slowly, and methodically.
- Approach cautiously from uphill, upwind, or upstream.
- Stay clear of vapor, fumes, smoke, and spills.
- Don't assume that gases or vapors are harmless because of lack of a smell – odorless gases or vapors may be harmful.
- Vapors may cause dizziness or asphyxiation without warning.
- Fire may produce irritating, corrosive and/or toxic gases.
- Many gases/vapors are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks) – control ignition sources.
- Keep out of low areas.

- Enter only when wearing appropriate protective gear and in accordance with your training, resources and capabilities.
- Establish an ICP and lines of communication.
- Continually reassess the situation and modify the response accordingly.
- Consider your own safety first, then the safety of people in the immediate area. Rescue attempts and protecting the environment or property must be weighed against you becoming part of the problem.

Area Assessment

- Is there a fire, spill, or leak?
- What are the weather conditions?
- What is the terrain like?
- Who/what is at risk – people, the environment, or property?
- What actions should be taken – evacuation or shelter-in-place?
- What resources are required (human and equipment)?
- What can be done immediately?

Site Safety

- Secure the scene:
 - Isolate the area and protect yourself and others.
- Use the Department of Transportation (DOT) Emergency Response Guidebook (ERG), ERG App or the Wireless Information System for Emergency Responders (WISER) App recommendations for establishing safe distances and safety information. See the [GRP CM, Section 5, for Web Links to Information Resources](#).
- Fire? – Consider a blast radius of 0.6 miles (1 km).
- Gather intelligence from a safe distance before conducting an on-site assessment – understand the problem:
 - Train consist/waybill.
 - Observe placards and types of containers/railcars.
 - Use the appropriate monitoring devices to detect hazardous materials.
 - One product or multiple commodities. If multiple materials are involved, what is the potential outcome of their commingling, will there be reactivity?
- CHEMTREC – Chemical Transportation Emergency Center provides two types of assistance during a hazardous material incident:
 - Relays information in regard to the specific chemical, and
 - Will contact the chemical manufacturer or other expert for additional information or on-site assistance.
 - 24-Hour Hotline: (800) 424-9300.
- If the substance cannot be identified, monitoring and sampling may be needed to determine the substances' physical and chemical properties, concentrations, and its degree of hazard.

- To minimize danger to personnel, this function should be performed by persons who are properly trained and are using the appropriate personal protective equipment (PPE) such as a trained hazardous materials response team following established protocols.
- Position vehicle away from the incident and use binoculars.
- Establish a dedicated Safety Officer.
- Develop an initial Site Safety Plan.
- Verify all information/intelligence.
- Consider all modes of operation:
 - Offensive
 - Defensive
 - Non-Intervention
- Eliminate any ignition sources.
- Consider current and expected weather.
- Consider worst-case scenario.
- Prepare for first responder rescue.
- Establish an accountability system for incident personnel.

Public Safety

- Identify threats to health and safety.
- Keep unauthorized persons away – initiate site access control.
- As an immediate precautionary measure, isolate spill or leak in all directions as recommended by the DOT ERG.
- Establish a Public Information Officer/Joint Information Center.
- Establish a Law Enforcement Branch:
 - Evacuation
 - Establish evacuation groups/divisions as needed.
 - Identify residents, businesses, public buildings and other areas from which occupants and property may need to be evacuated.
 - Locate and identify special needs individuals that require extraordinary care.
 - Provide security for evacuated areas.
 - Shelter-In-Place
 - Create a temporary safe refuge area by using the residence or business place.
 - Ensure, through community outreach, that the public understands what shelter in place means.
 - Limit travel in the affected area, when the process of evacuation puts the public in harm's way.
 - Provide clear information and instruction on the shelter in place process.
- Resource Notifications:
 - Identify resources to assist with shelter in place operations:
 - Local Office of Emergency Services
 - Public health services/offices

- Local hospitals and disaster control facilities
- Public Information Officer
- Utilize mass notification systems:
 - Reverse 911
 - Television, radio
 - Websites, social media
 - Local sirens
- Poison Control Centers:
 - Provide poison/exposure information to emergency personnel and the public. For exposed victims, can provide regional hospital capabilities. Calls are automatically forwarded to the nearest center: Sacramento, San Francisco, Fresno, and San Diego. 24-Hour Hotline: (800) 222-1222.

Isolation, Deny Entry, Traffic and Access

- Control all access/entry points to the incident.
- Control perimeter between all entry points.
 - Determine perimeter size using the ERG, ERG App, or WISER App.
- Control access inside perimeter, including responders.
- Establish zones:
 - Exclusion/Hot Zone
 - Contamination Reduction/Warm Zone
 - Support/Cold Zone
- Establish traffic pattern.

Communication Frequencies

- The local, responding fire department will establish the communication frequency for the incident, followed by law enforcement and the UC establishing a formal Communications Plan, ICS Form 205.

2.2 Source Control

After a spill occurs, efforts to control and contain the spill at or near the source should be a top priority. An on-site evaluation of actual conditions is needed to determine whether a response strategy, including source control, is safe to deploy, effective under existing environmental conditions, and effective for the particular type of oil involved. If, in the responder's best judgment, control and initial containment of an oil spill at the source is not feasible, or the source is controlled but oil has spread beyond initial containment, then the response strategies laid out in [Chapter 3](#) of this GRP take precedence until a UC is formed. If, in the responder's judgement, it is determined to be safe to implement source control actions, the following methods may be applicable.

Offensive source control strategies (stop, control, or stabilize the release) typically include the following:

- Plug and patch
- Absorb/adsorb
- Transfer (e.g., sting tanks)
- Containerize
- Stop (shut off valve)

Defensive containment strategies (restrict, slow, or redirect the spread of oil) typically include the following:

- Containment boom
- Berm or dam:
 - Simple berm or dam constructed of dirt, sandbags, hay bales, fire hose, or lumber.
 - Underflow dam for product that floats on top of water.
 - Overflow dams for product that sinks in water.

Once a UC has formed, with input from the Environmental Unit, and under the direction of the Recovery and Protection Branch Director, the Salvage/Source Control Group Supervisor coordinates and directs all salvage/source control activities related to the incident.

2.3 River Streamflow Ranges

Current river stage data are available for Ballona Creek through the NOAA National Weather Service website below and should be used to calculate travel distances for the first 6, 12, and 24 hours at the time of the release. The maximum velocity for Ballona Creek based on average velocity from the U.S. Geological Survey (USGS) National Hydrology Dataset is 1.92 feet per second (1.1 knots).

Current river stage for Ballona Creek is available online from NOAA National Weather Service, Advanced Hydrologic Prediction Service:

<https://water.weather.gov/ahps2/hydrograph.php?wfo=lox&gage=blnc1>.

Additional flow data resources can be found in Section 5 of the [GRP CM](#), Web Links to Information Resources.

2.4 Regional Response Trailer Locations

Table 2-1 below provides information on the nearest response equipment trailers to the GRP boundary.

Table 2-1: Regional Response Trailer Locations

Contact Name	Equipment Location	Boom	Phone Number (after hours)
County of Los Angeles Beaches and Harbors	Marina Del Rey	1000 ft., 6" x 12"	(310) 305-9522
Chevron Refining	Playa Del Rey/City of Los Angeles	Harbor Boom - 18" 500 ft.	(310) 615-5172
Sentinel Peak Resources	City of Los Angeles	Response Trailer w/ 500 ft. boom	(800) 766-4108
City of Culver City	Culver City, Overland Avenue	Harbor Boom	911

2.5 Local/Regional Asset Resources

Appendix F contains information on Local/Regional Asset Resources including the location and contact information for the following:

- Water supplies and foaming operations for firefighting
- Air monitoring equipment
- Communication equipment
- Certified HazMat Teams
- Swift Water Rescue Teams

In addition to the local/regional assets and response trailer locations, Oil Spill Response Organizations (OSROs) are kept on contract by the RP and retain an extensive inventory of response equipment that can be called upon to deploy in an expedited time frame.

2.6 Unmanned Aircraft System

CDFW has an Unmanned Aircraft System (UAS) Program that manages the use of UAS within the Department. OSPR is currently working to adapt this technology to assist with oil spill response. Opportunities exist to utilize UAS with situation data collection and SCAT whereas constraints for UAS may include restricted airspace near major airports and potential disturbance to biological resources. Additionally, many industry partners and their contractors and/or consultants are testing and utilizing UAS capabilities for spill response.

2.7 Incident Command Post Locations

During initial response, the ICP will likely be near the incident, possibly working from a first responder vehicle. As the incident progresses and responding staff continue to be deployed, the need for an off-site ICP providing space, electricity, and additional amenities and resources becomes apparent. Table 2-2 provides a list of locations near the Ballona Creek GRP boundary that can serve as an ICP for spill response activities. [Appendix F](#) includes an ICP Facility Assessment Check Sheet to evaluate potential ICP locations including proximity to services, cell phone coverage, location physical characteristics/size, parking, and site security.

Table 2-2: Incident Command Post Locations

Location	Contact Name and Address	Phone Number
Dockweiler Youth Center	County of Los Angeles Dept. of Beaches and Harbors 12505 Vista Del Mar Playa Del Rey, CA 90293	(310) 726-4128
Veteran's Memorial Building	City of Culver City 4117 Overland Ave. Culver City, CA 90230	(310) 253-6625

2.8 Public Works

Local street and road departments are responsible for maintaining roadways in their jurisdiction and may assist with road closures, cleanup, or decontamination. Local water supply agencies (which may be a public works) are responsible for maintenance of community water systems. They may provide remedial actions in coordination with the Regional Water Quality Control Board (RWQCB) and the Department of Water Resources (DWR) when an oil spill incident may affect water sources such as treatment plants and pumping stations. Public works departments are also critical for spills involving storm drains as they have access to storm sewer system diagrams showing input and outfall points, which may be essential for response. See section 2.9, Public Health, for small public water systems. <https://dpw.lacounty.gov/fcd/StormDrain/disclaimer.cfm>

Water Intakes

Whereas there are no water intakes along Ballona Creek within the GRP boundary, notification of an oil spill to the Los Angeles Department of Water and Power, Metropolitan Water District, and the County of Los Angeles Department of Public Works (see [Contact Sheet](#)) will provide for proper notification to the appropriate entities who manage public water and who can disseminate information as needed.

Tidal Gates

There are two tidal gates near the mouth of Ballona Creek; one connects to Ballona Wetlands and the other is to the Del Rey Lagoon. The Ballona Wetlands gates are self-regulating and the Del Rey Lagoon gates can be operated remotely. Table 2-3 lists the contact information for the Ballona Creek tidal gates.

Table 2-3: Ballona Creek Tidal Gates

Gate	Contact Name	Phone Number
Ballona Wetland Tidal Gates	Los Angeles County, Department of Public Works	(562) 861-0316 (626) 458-4357 after-hours dispatch
Del Rey Lagoon Tidal Gates	City of Los Angeles, Dept. of Recreation and Parks	Jim Muff, primary (818) 441-2874, 24/7 Kent Hesselgrave, backup: (213) 216-4325, 24/7

2.9 Public Health

Local health agencies are responsible for protecting public health and often coordinate emergency medical services. County and city health officers have authority within their jurisdictions to take any preventive measures which may be necessary to protect and preserve public health. Public Health and Environmental Health Officers can provide assistance with health impacts associated with the release, key public health messages, community air monitoring and evacuations/shelter-in-place orders. The Public Health Officer has broad authority to take actions necessary to protect the public's health and may be a key partner in decisions around evacuation and restrictions against public access. For additional information on Public Health Officer authorities see:

<https://www.cdph.ca.gov/Programs/CCLHO/CDPH%20Document%20Library/HOResplnEmergencies1998.pdf>.

Small public water systems, 200 connections or less, and small state systems, less than 15 services, may be overseen by local public health. The environmental health agency may be a great resource for identifying rural water source/systems at risk from a particular release.

During an oil spill the local Air Pollution Control District can provide valuable support to the UC and be actively involved in situations where public and environmental health are threatened by an oil spill, particularly with respect to public air monitoring. For a directory of local air pollution control districts, please see the California Air Resources Board website at: <https://www.arb.ca.gov/capcoa/roster.htm>.

CUPA

All counties and a number of cities within California have been designated to implement the state and federal hazardous materials emergency planning and community right-to-know programs; these program functions are performed by CUPAs and Participating Agencies (PA). A list of CUPAs and PAs has been developed and is maintained by the California Environmental Protection Agency (CalEPA), Unified Program Section (see <http://cersapps.calepa.ca.gov/public/directory/>). Table 2-4 below lists the CUPAs for San Bernardino County (current as of 10/2018). CUPAs are typically fire departments or environmental health departments that may provide resources and liaison functions during oil spills. Some CUPAs have emergency response capabilities with Health Officer authority.

CUPAs are responsible for the following local “unified programs,” which may include addressing chemical components released by an oil spill:

- Hazardous Materials Area Plans.
- Hazardous Materials Business Plan Program.
- Underground Storage Tank (UST) Program.
- Inspection of Aboveground Storage Tanks (AST) storing petroleum products to ensure that Spill Prevention, Control and Countermeasure (SPCC) plans are in place, where necessary.
- Hazardous Waste Generator Program, including most of the state’s “tiered permit” requirements.
- California Accidental Release Prevention Program (CalARP).

Table 2-4: Los Angeles County CUPAs

Agency Name	Address	Phone Number
El Segundo City Fire Dept.	314 Main Street El Segundo, CA	(310) 524-2395
Glendale City Fire Dept.	780 Flower Street Glendale, CA	(818) 548-4810
Long Beach Environmental Health	2525 Grand Avenue Long Beach, CA	(562) 570-4131
Los Angeles City Fire Dept.	200 North Main Street, Room 1780 Los Angeles, CA	(213) 978-3680
Los Angeles County Fire Dept.	5825 Rickenbacker Road Commerce, CA	(323) 890-4000
Santa Fe Springs Fire-Rescue	11300 Greenstone Avenue Santa Fe Springs, CA	(562) 944-9713
Santa Monica Fire Dept.	333 Olympic Drive 2nd Floor Santa Monica, CA	(310) 434-2666
Vernon Health & Environmental Control Dept.	4305 Santa Fe Avenue Vernon, CA	(323) 826-1448

Fisheries Closures

Fish and Game Code 5654 requires the Director of CDFW to close affected waters to the commercial, recreational, subsistence, and aquaculture take or harvest of all fish and shellfish within 24 hours of notification of a spill or discharge. As soon as practicable during an incident response with potentially impacted fisheries, the responding OSPR Environmental Scientist will notify the OSPR Fisheries Closure Coordinator and provide the following information (as available):

- Location
- Product
- Volume
- Weather
- Known fisheries
- Known media interest
- Spill trajectory

The OSPR Fisheries Closure Coordinator will work with the Office of Environmental Health Hazard Assessment (OEHHA) to determine whether a closure is warranted, and if so, the geographical boundaries of the closure [FGC §5654, 7715]. Per the Code, closure is not required if OEHHA finds, within 24 hours of the spill notification, that a public health threat does not or is not likely to exist. Once in place, closures may be reopened within 48 hours if OEHHA determines there is no longer a health threat. Closures lasting more than 48 hours require the Director of CDFW to order expedited sampling. OSPR and OEHHA, working together, will develop and execute a sampling and analysis plan. Once safety thresholds are met, CDFW will reopen closed fisheries.

2.10 On-Site Considerations

Before Deploying a GRP Strategy (Questions to Ask)

- Are conditions safe? Response managers and responders must first determine if efforts to implement a response strategy would pose an undue risk to worker safety or the public, based on conditions present during the time of the emergency. No strategy should be implemented if doing so would threaten public safety or present an unreasonable risk to the safety of responders.
- Has initial control and containment been sufficiently achieved? Source control and containment of the spill at or near the source of a spill are always higher priorities than the deployment of GRP response strategies, especially when concurrent response activities are not possible.

- How far downstream or out into the river environment is the spilled oil likely to travel before response personnel will be ready and able to deploy GRP response strategies?
- Will equipment or vehicles need to be staged on or near a roadway? If so, traffic control may be required. See [Contact Sheet](#) for Caltrans and Statewide Traffic Safety & Signs contact information.

During Strategy Implementation (Things to Remember)

- On-scene conditions (weather, river stage and flow, waves, and debris) may require that strategies be modified in order to be effective. There is a significant chance that weather and conditions experienced at a particular strategy location during an actual spill event will be different from that when data were gathered during field visits. Response managers and responders must remain flexible and modify the strategies provided in this chapter as needed to meet the challenges experienced during an actual response.
- Certain strategies may call for access points or staging areas that are not easily reached at all times of the year or in all conditions.
- Oil containment boom must be free of twists, gaps, and debris in order to remain effective. The deployment of oil containment boom or underflow dams is anticipated to be a component of response operations at all locations.

After Strategy Implementation (Things to Understand)

- Oil containment boom and underflow dams should be maintained and periodically monitored to ensure their effectiveness. Changes in river stage and flow will likely require modifications to boom deflection angles (see Section 1 of the [GRP CM](#)). Depending on conditions, some booming strategies or underflow dams may require around-the-clock tending.
- Although designed for implementation during the initial phase of an oil spill, GRP strategies may continue to be deployed and implemented throughout the entire lifespan of a response, as determined appropriate and necessary by the IC or UC.

2.11 Transitioning from Initial Response to a Unified Command

Incidents usually occur without warning. The period of Initial Response and Assessment occurs in all incidents. Short-term responses, which are small in scope and/or duration (e.g., a few resources working during one operational period), can often be coordinated using only an Incident Briefing Form (ICS 201).

During the transfer-of-command process from the initial IC to the next IC, or a more formal UC, an Incident Brief utilizing the ICS 201 provides an incoming IC/UC with basic information regarding the current incident situation and resources allotted to the response. Most importantly, the ICS 201 functions as the Incident Action Plan (IAP) for the initial response, remains in force, and continues to be updated until the response ends or the Planning Section generates the incident's first comprehensive IAP. It is also suitable for briefing individuals newly assigned to the Command and General Staff, incoming tactical resources, as well as needed assessment briefings for the Incident Management Team (IMT). Per OPA 90, the UC consists of an FOSC, SOSC, and the RP.

2.12 Mutual Aid

California's emergency assistance is based on a statewide mutual aid system designed to ensure additional resources are provided to the state's political subdivisions whenever their own resources are overwhelmed or inadequate. The basis for this system is the *California Disaster and Civil Defense Master Mutual Aid Agreement* (MMAA), which is entered into, by and among, the State of California, its various departments and agencies, and the various political subdivisions, municipal corporations, and public agencies to assist each other by providing resources during an emergency.

For mutual aid coordination purposes, California has been divided into six mutual aid regions. The purpose of a mutual aid region is to provide for the most effective application and coordination of mutual aid and other emergency related activities. Figure 6-1, Mutual Aid Regions, in Section 6 of the [GRP CM](#) illustrates the six mutual aid regions, which have the same boundaries as the LEPCs.

Formal mutual aid requests follow specified procedures and are processed through pre-identified mutual aid coordinators. Mutual aid requests follow discipline-specific chains (i.e. fire, law enforcement, emergency manager) from one level of government to the next. The mutual aid coordinator receives the mutual aid request and coordinates the provision of resources from within the coordinator's geographic area of responsibility. In the event resources are unavailable at one level of government, the request is forwarded to the next higher level of government to be filled.

Details on Mutual Aid as outlined in the State of California State Emergency Plan, 2017, can be found in Section 6 of the [GRP CM](#).

2.13 Volunteers

In general, volunteers do not participate in the majority of oil spill responses. In cases when there has been no volunteer interest expressed, the ICS structure may not contain any positions specifically dedicated to volunteer management. Volunteers are only used if there is a role for them to fill. As the IC or UC becomes aware of individuals or organizations interested in providing volunteer services and/or the need for volunteers arises, the IC/UC should address the volunteer issue and may make assignments for volunteer management within the ICS. Only volunteers approved by the IC/UC are allowed to participate at a spill response. For additional information on volunteers, see Section 7 of the [GRP CM](#).

2.14 Natural Resource Damage Assessment

The overall goals of the natural resource damage assessment (NRDA) process are to restore the injured natural resources to pre-spill conditions and to obtain compensation for all documented losses. NRDA is conducted by State and federal trustees, often in cooperation with the responsible party, and is a separate process from the response. Assessment of injuries and damages resulting from spilled oil needs to begin as soon as possible following the initial release of the pollutant. This necessitates that NRDA activities be conducted simultaneously with response efforts and coordinated through the UC. Portions of the NRDA process should be integrated into the ICS to improve communication, expedite both response and NRDA activities, and make efficient use of personnel and equipment. To avoid potential conflicts in duties, it is recommended that members of the NRDA Team not have responsibilities for the spill cleanup or general response activities. For additional information on the NRDA Process, see [GRP CM](#) Section 8.

Ballona Creek

Geographic Response Plan

Chapter 3 – Response Site Strategies

3.0 Chapter Overview

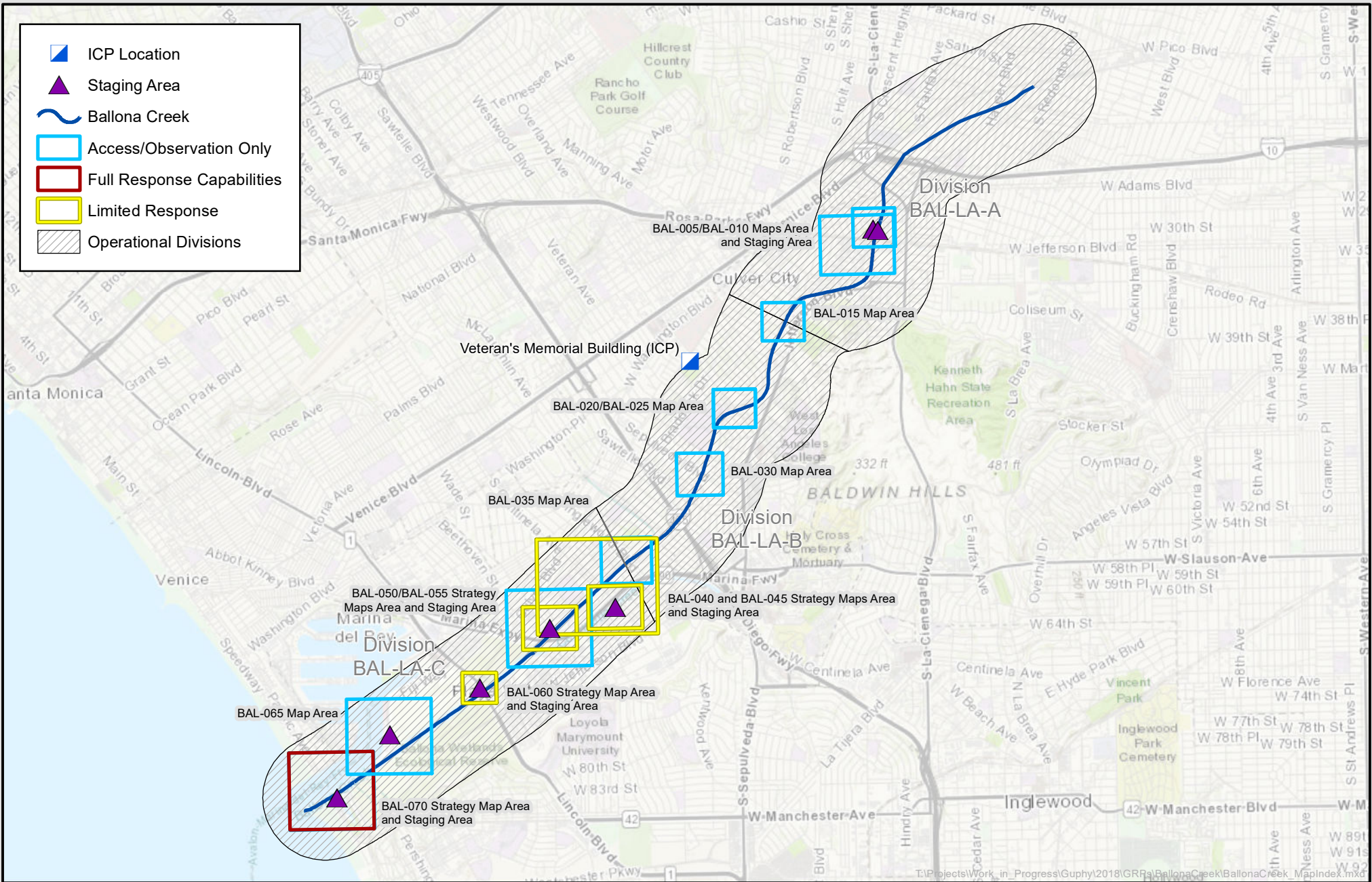
This section provides information on GRP response strategies. First responders should prioritize the order in which they should be implemented based primarily on the release origin point and the nearest appropriate access point for response operations, given the time required to mobilize and deploy response assets. These strategies are intended to be implemented immediately during the initial phase of incident response and may continue to be utilized as long as necessary at the discretion of the IC or UC. Unless circumstances unique to a particular spill situation dictate otherwise, the response strategy summary matrix in Section 3.4 should be used to decide the order in which GRP strategies are deployed. The downstream movement of oil and the time it takes to mobilize response resources to deploy GRP strategies must always be considered when setting implementation priorities. Area maps, operational division maps, and information on staging areas and boat launch locations are also provided in this chapter. Information on resources-at-risk and oiled wildlife can be found in [Chapter 4](#) of this plan. And information on response methods and shoreline countermeasures can be found in Sections 1 and 2 of the [GRP CM](#).

3.1 Response Strategy Map Index

The following map (Figure 3-1) provides an index of the response strategy locations for the Ballona Creek GRP. Each block represents the map area for the corresponding response strategy detail sheet. Detailed information for each strategy location can be found in the response strategy summary matrix in Section 3.4 and the response strategy detail sheets in Section 3.5. Operational division maps can also be found in Section 3.5 before each grouping of response strategy and access/observation detail sheets.

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Figure 3-1: Ballona Creek GRP Response Strategy Map Index



Calif. Dept. of Fish and Wildlife
Office of Spill Prevention and Response

Data Source: CDFW-OSPR
Requestor: OSPR
Author: S. Paine
Date Created: 02/19/2019

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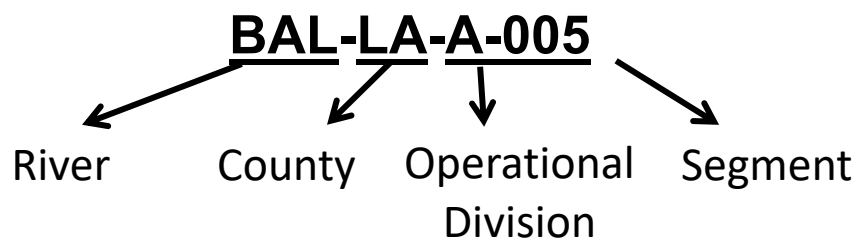
Ballona Creek Geographic Response Plan Response Strategy Map Index

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3.2 Naming Conventions – Operational Division and Segments and Site Strategies

Operational divisions and segments are presented in this GRP as front-loaded information to assist in rapid response planning by dividing the area of concern into smaller zones to provide for quicker operational planning, implementation, and monitoring for each area (operational division and/or segment). Operational divisions are subdivided into smaller segments that can be used for response work assignments including SCAT and shoreline cleanup.

Each segment listed in this document has been given a unique identifier that includes three letters denoting the associated waterbody or area/GRP name (e.g. Cajon Pass = CAJ) and two letters denoting the county. The operational division consists of a single letter and the segment is a three-digit number starting with 005 and increasing in number by increments of 5. For rivers that border two counties, the county on the north or west side of the river, respectively, will be the denoted county. Operational divisions (and therefore segments) do not cross county lines.



BAL = Ballona Creek

LA = Los Angeles

Operational Division = A, B, C, D, etc.

Segment = 005, 010, 015, etc.

During the course of conducting SCAT, an existing segment may need modification, or a new segment may need to be added; please consult with the SCAT Coordinator or EUL who will determine the proper naming convention for new or modified segments.

Each Access/Observation or Response Site Strategy is uniquely identified by the waterbody three-letter code, followed by a three-digit number starting with 005 (e.g. BAL-005) and increasing in number by increments of 5 (e.g. 005, 010, 015, etc.). The unique identifier for each Access/Observation or Response Site Strategy is found in the top header of each strategy sheet and corresponds to the locations on the Index Map, Division Maps, and Response Strategy Summary Matrix.

The site strategy numbering is independent of the segment numbering.

3.3 General Response Priorities

The following list provides the priority or order in which GRP strategies should be implemented after an oil spill into Ballona Creek:

- Safety is always the number one priority. Do not implement GRP strategies or take actions that will unduly jeopardize public, worker, or personal safety.
- Make appropriate notifications.
- Control and contain the source of the spill; mobilize resources to the spill location. Source control and containment are always a higher priority than the implementation of GRP strategies.
- Determine the order in which GRP strategies should be implemented based on the location of the spill or affected area.
- Generally, GRP strategies should be simultaneously deployed closer to the spill and downstream, well beyond the furthest extent of the spill, and then continued upstream towards the spill source.
- As response resources become increasingly available, implement the GRP strategies more broadly. As the response proceeds under an organized command structure, GRP strategies and priorities may be modified based on incident-specific conditions.

3.4 Response Strategy Summary Matrix

Table 3-1 lists the response strategy and access/observation sites for the Ballona Creek GRP from upstream to downstream. Each site is color coded to represent response sites with full response capability, limited response capability, and manual response capability. Access/observation sites are color coded in blue and staging areas are denoted with a purple triangle. Each response strategy and access/observation site has a unique identifier as detailed in Section 3.2 above.

Table 3-1: Response Strategy Summary Matrix

Response Strategy Number	Response Strategy Name and Location	Coordinates Latitude/ Longitude	Site Strategy Type	Minimum Boom Requirement (Feet)	Boat/Kayak/Inflatable Raft Required To Access One or Both Shorelines?	Site Strategy Notes	Staging Area Notes	Site Hazards and Restrictions	Nearest Rail Milepost or Highway Postmile	Operational Division and Segment Map Page #	Response Strategy Detail Sheet Page #
BAL-000 Underflow/Sandbag Dam Strategies	Underflow/Sandbag Dam Strategy From Cochran Ave. at Ballona Creek, City of Los Angeles, downstream to East of Centinela Ave. at Ballona Creek, City of Los Angeles	34.04429, -118.35390 downstream to 34.98690, -118.41559	Underflow/Sandbag Dam	N/A	N/A	A sandbag dam with underflow pipes can be used almost anywhere in this section during low flows.	Staging areas will vary. See other sites in GRP.	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	N/A	35
BAL-005	Syd Kronenthal Park aka McManus Park 3459 McManus Ave., Culver City, CA 90232	34.02703 -118.37622	Access/Observation	N/A	N/A	N/A	Large parking lot and staging area.	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	33	39
BAL-010	Exposition Line Bike Path Exposition Line bike path at Ballona Creek, City of Culver City	34.02785 -118.37603	Access/Observation	NA	NA	NA	Limited staging on bike path. Large staging area at nearby Syd Kronenthal Park (aka McManus Park).	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	33	41
BAL-015	Duquesne Ave. Crossing Duquesne Ave. at Ballona Creek, City of Culver City	34.01743 -118.38948	Access/Observation	N/A	N/A	N/A	N/A	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	33	43
BAL-020	Overland Ave. Crossing North Overland Ave. at Ballona Creek near the Culver City Library, City of Culver City	34.0074 -118.39653	Access/Observation	N/A	N/A	N/A	N/A	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	45	47
BAL-025	Overland Ave. Crossing South Ocean Dr. at Overland Ave., City of Culver City	34.0067 -118.39607	Access/Observation	N/A	N/A	N/A	NA	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	45	49

Response Strategy Number	Response Strategy Name and Location	Coordinates Latitude/ Longitude	Site Strategy Type	Minimum Boom Requirement (Feet)	Boat/Kayak/Inflatable Raft Required To Access One or Both Shorelines?	Site Strategy Notes	Staging Area Notes	Site Hazards and Restrictions	Nearest Rail Milepost or Highway Postmile	Operational Division and Segment Map Page #	Response Strategy Detail Sheet Page #
BAL-030	Sepulveda Blvd. Crossing Sepulveda Blvd. at Ballona Creek, City of Los Angeles	33.99979 -118.40151	Access/Observation	NA	NA	N/A	N/A	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	45	51
BAL-035	Inglewood Blvd. Crossing Inglewood Blvd. at Ballona Creek, City of Los Angeles	33.99013 -118.41182	Access/Observation	N/A	N/A	N/A	N/A	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	45	53
BAL-040	Centinela Ave. Crossing Centinela Ave. at Ballona Creek, City of Los Angeles	33.98702 -118.45368	West side of bridge: Deflection boom and collection. Access/SCAT	200 ft.	N/A	Channel bottom is approximately 89 ft. wide. Many existing tie-offs for boom. End of tidal influence.	Limited on both sides of the creek. Boom trucks, trailer, vacuum trucks and temporary storage tanks could use the space but it is limited and narrow.	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	55	57
BAL-045	Centinela Creek at Hammack St. Alleyway Centinela Creek at Hammack St. Alleyway, City of Los Angeles	33.98448 -118.41368	Sandbag dam Access/Observation	N/A	N/A	Low flow channel is approximately 7 ft. wide. Entire channel is approximately 69 ft. wide.	Gated staging area in alleyway. Large enough for temporary storage tanks and heavy equipment.	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	55	61
BAL-050	McConnell Ave. Access McConnell Ave. at Ballona Creek, City of Los Angeles	33.98219 -118.42288	Access/Observation	N/A	N/A	N/A	Staging area on cul-de-sac at end of McConnell Ave.	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	55	65
BAL-055	Centinela Creek at Ballona Creek Confluence of Centinela Creek and Ballona Creek, City of Los Angeles	33.97901 -118.42397	Deflection boom and collection during high water. Sandbag dam during low water. Access/Observation	150 ft.	N/A	Channel bottom is approximately 89 ft. wide. A mudflat will show on a very low tide just downstream of this location.	Limited staging on bike path. Best staging is at Centinela Creek at Hammack St. Alleyway.	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	55	67





Response Strategy Number	Response Strategy Name and Location	Coordinates Latitude/ Longitude	Site Strategy Type	Minimum Boom Requirement (Feet)	Boat/Kayak/Inflatable Raft Required To Access One or Both Shorelines?	Site Strategy Notes	Staging Area Notes	Site Hazards and Restrictions	Nearest Rail Milepost or Highway Postmile	Operational Division and Segment Map Page #	Response Strategy Detail Sheet Page #
 BAL-060	Lincoln Blvd. Crossing Lincoln Blvd. at Ballona Creek, City of Los Angeles	33.97534 -118.43280	Deflection boom and collection.	600 ft.	N/A	Channel is approximately 264 ft. wide. There will always be water. Tidally influenced.	Limited on both sides of the creek. Boom trucks, trailer, vacuum trucks and temporary storage tanks could use the space but it is limited and narrow.	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	55	71
 BAL-065	Bike Trail Access Marvin Braude Bike Trail at Ballona Creek, City of Los Angeles	33.96997 -118.44553	Access/Observation	N/A	N/A	N/A	Large parking lot adjacent to the start of the Marvin Braude Bike Trail on Fiji Way. Parking lot and entrance to access is approximately 550 ft. from Ballona Creek.	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	55	75
 BAL-070	Pacific Ave. Crossing South Pacific Ave. and 62nd Ave., City of Los Angeles	33.96281 -118.45301	East side of bridge: Deflection boom and collection. Access/SCAT	600 ft.	N/A	Channel is approximately 264 ft. wide. There will always be water. Tidally influenced. Approximately 1500 ft. until the Pacific Ocean. Close tidal gates and block culvert to wetlands south of Ballona Creek.	In parking lots. All equipment.	Dangerous swiftwater after rainfall. Homeless encampments. Steep banks.	N/A	55	77

Table Legend

RED	Full Response Capabilities	Access to site for large equipment and full deployment.
YELLOW	Limited Response	Access to site may be limited; have to cross railroad tracks, etc., may not get large equipment to site.
GREEN	Manual Response	Sorbent boom/clean-up; slow, backwater areas.
BLUE	Access/Observation	Site provides access to the shoreline or edge of waterbody and/or provides an observation site. Observation site may not be at the waters edge. Both may provide locations for SCAT teams or NRDA to deploy/survey for oil.
GRAY	Unique Occurrence (or Special Circumstance), (or Stand-Alone Occurrence)	BAL-000 identifies 10 sites along Ballona Creek with the same response strategy type - deployment of a sandbag underflow dam. All 10 sites are on a single map with site strategy information listed on a single detail sheet.
 PURPLE TRIANGLE	Staging Areas	Response Strategy and Access/Observation Sites with a potential staging area are denoted with a purple triangle.

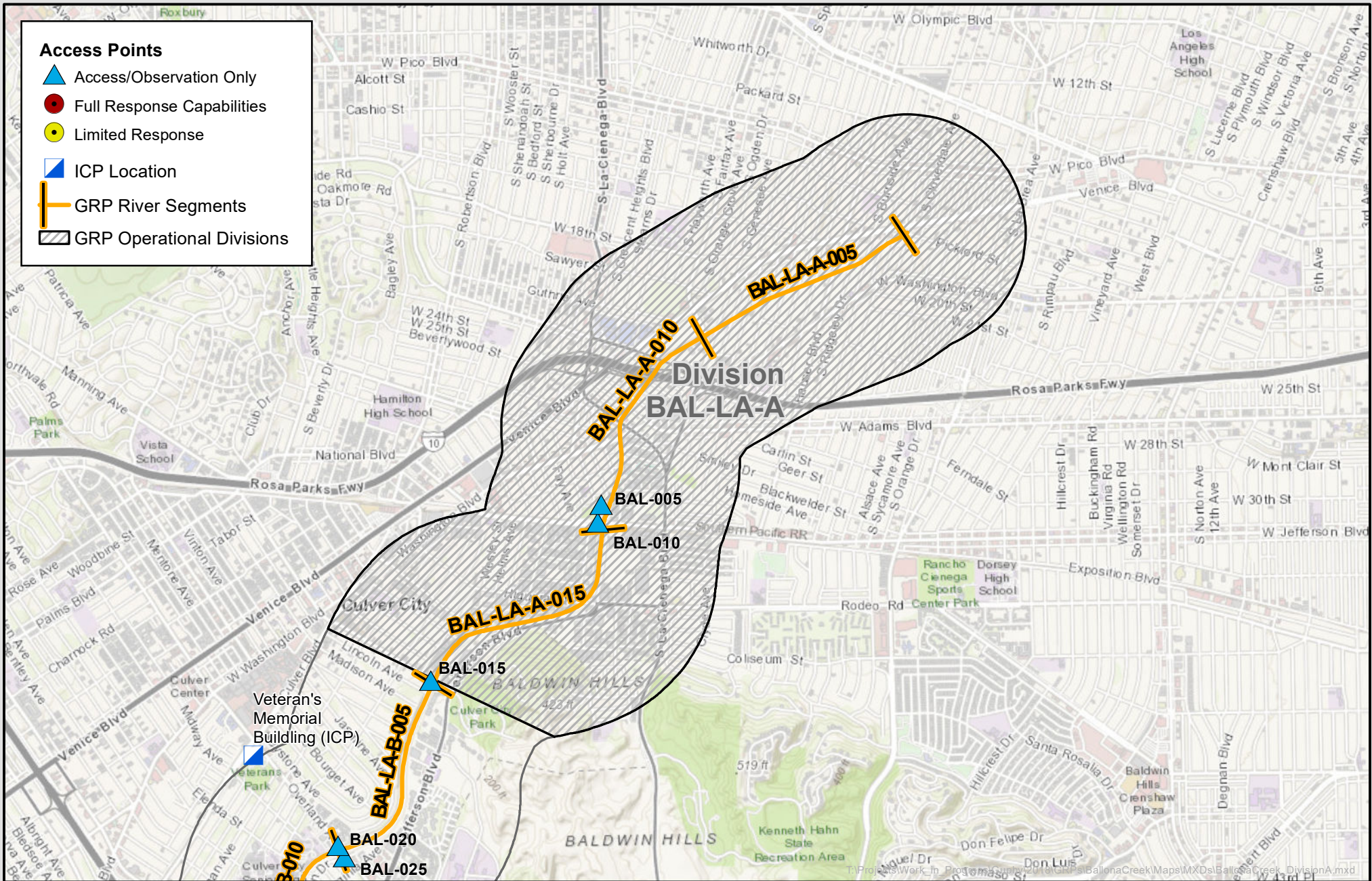
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3.5 Response Strategy Detail Sheets

Section 3.5 contains the color-coded full response strategy (red), limited response strategy (yellow), manual response strategy (green) and access/observation site (blue) detail sheets with corresponding unique identifier and site name listed in the header. Before each grouping of detail sheets, the operational division map will show the location of each site and any staging areas.

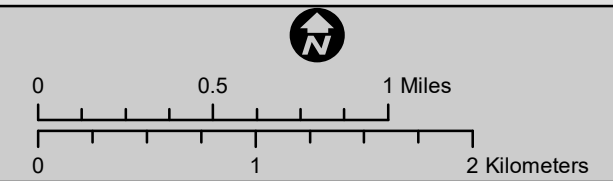
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Figure 3-2: Ballona Creek GRP Division BAL-LA-A Map




Calif. Dept. of Fish and Wildlife
 Office of Spill Prevention and Response
 Data Source: CDFW-OSPR
 Requestor: OSPR
 Author: S. Paine
 Date Created: 02/12/2019
 NAD_1983_California_Teale_Albers

Ballona Creek Geographic Response Plan Division BAL-LA-A



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Latitude/Longitude: 34.04429, -118.35390
downstream to 33.98690, -118.41559

Driving Directions

Highway Postmile: N/A

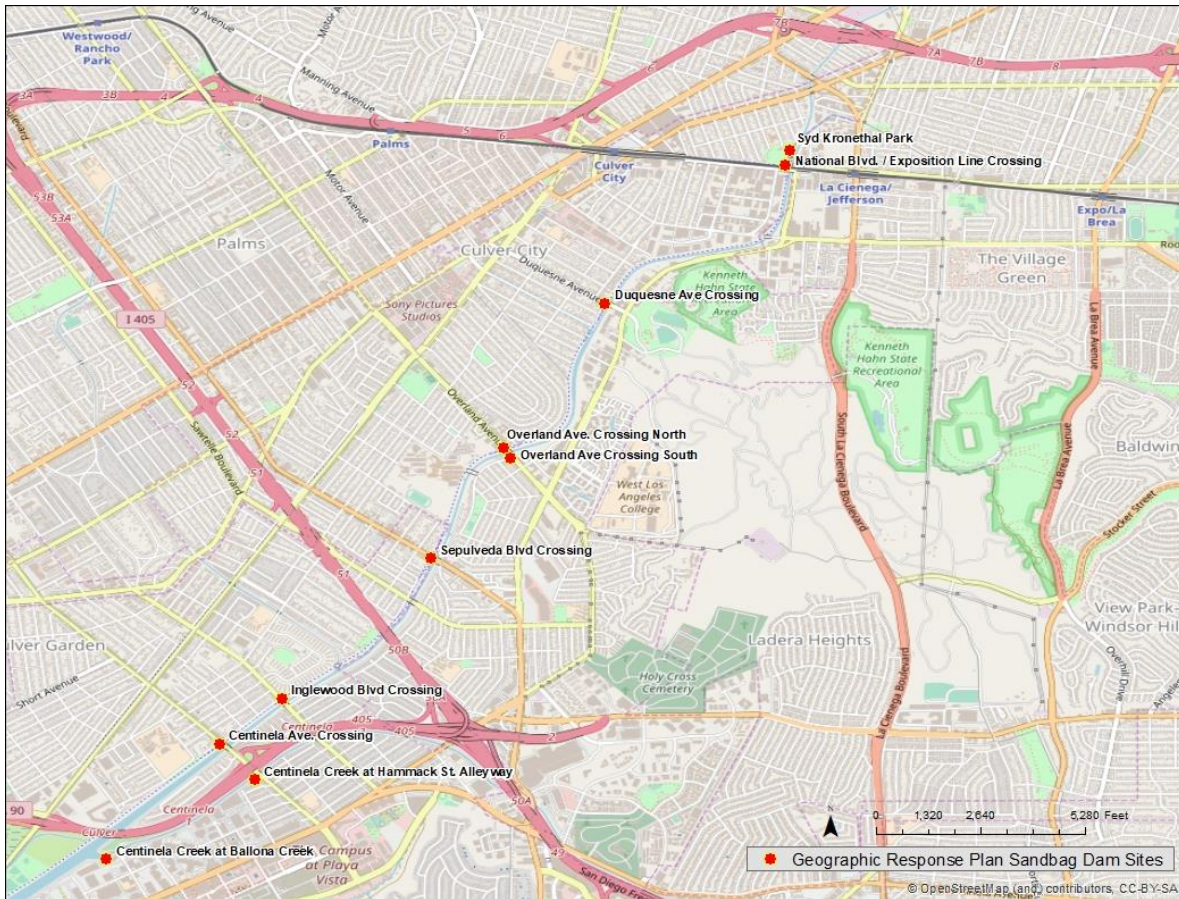
Area can be accessed via I-405 from the north or south. Or, from I-10 from the east or west using several exits. Several street crossings have access. See Access/Observation sites.

Railroad Milepost: N/A

Nearest Address and Thomas Guide #:
N/A

Cell Service: Yes

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall.
- Homeless population utilizes the area.
- Steep banks
- Locked gates

Resources-At-Risk

Ecological: California Least Tern, Belding's Savannah Sparrow, Burrowing Owl, Coastal California Gnatcatcher, Least Bell's Vireo, Light-footed, Ridgway's Rail, Least Bittern, pallid bat, south coast marsh vole, western mastiff bat, Silvery Legless Lizard, El Segundo blue butterfly, Nuttall's scrub oak, Orcutt's pincushion, southern tarplant.

Economic: UCLA Marina Aquatic Center (310) 823-0048.

Tribal: Contact the Native American Heritage Commission at (916)-373-3710.

Cultural and Historic: Contact the South Central Coastal Information Center at (657) 278-5395.

Site Description and Field Notes

River Width: Varies

Site Strategies: BAL-005 thru BAL-045 and BAL-055

Gradient: Low

Concrete lined storm channel with vertical walls from Cochran Ave. south to Duquesne Ave. and sloping walls from Duquesne Ave. south to Centinela Ave. Access to the channel bottom will be easier and safer in the sloped wall section; however, an extension ladder would work in the vertical wall section. Sandbag dams are an ideal strategy for this portion of the creek.

Site Contact/s:

LA County Public Works
(562) 861-0316
(626) 458-4357 After Hours

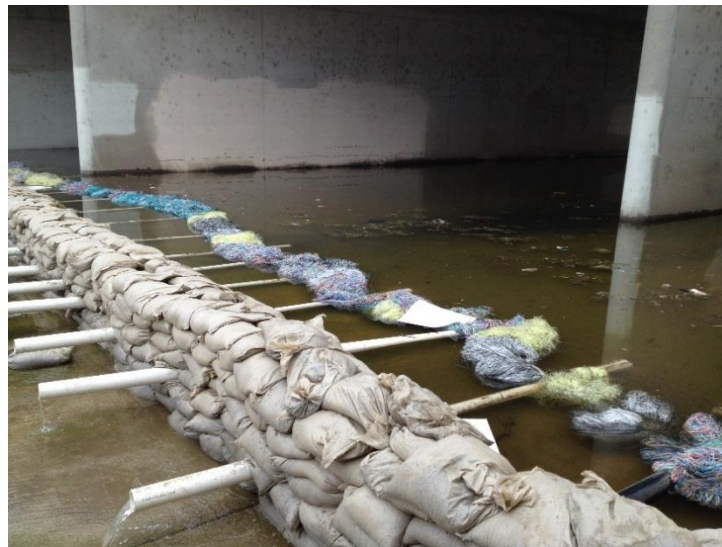
Vehicular Access: Passenger vehicle

Recreational Use: N/A

Boat Launches: N/A

ESI Shoreline Type: 1B Exposed, solid man-made structures; 8F Vegetated, steeply-sloping bluffs; 9B Vegetated low banks; 10B Freshwater marshes

Site Images



Sandbag Underflow Dam Strategies

Site Objectives: Sandbag underflow dam to prevent further movement of oil and allow for collection of oil.

Implementation: Construct sandbag underflow dam with a minimum of 3 feet high.

Staging Area Location and Capabilities/Amenities/Waste Management: Various staging possibilities near bike path, side roads, and nearby parking lots.

Table of Response Resources

Type	Sub-Type	Size	Unit	QTY - Unit	Special Equipment or Comments
Sandbags					Sandbag dam minimum of 3 feet high
Piping					For sandbag dam underflow
Ladder	Extension	20	Ft.		For access to channel bottom from bike path

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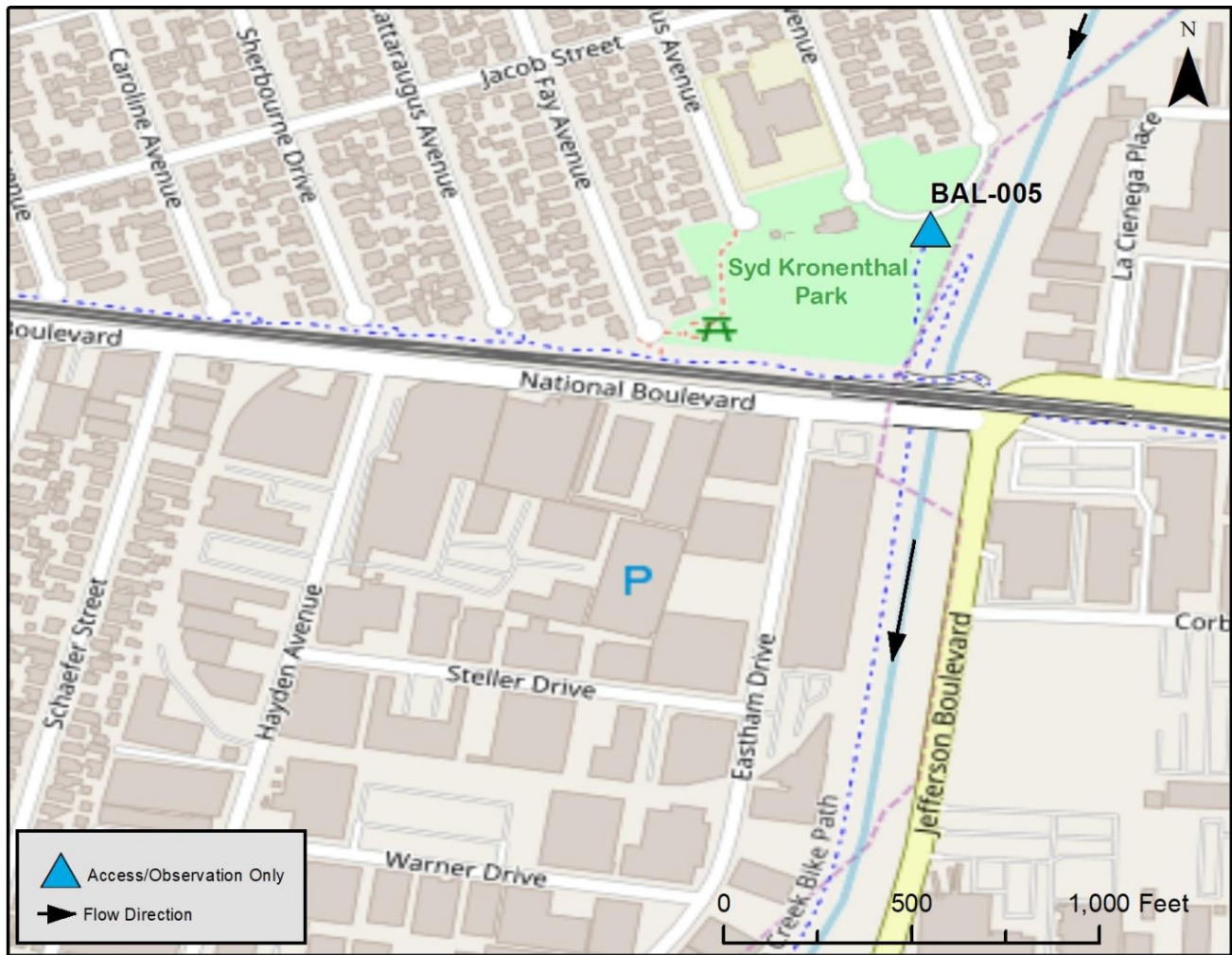
<p>Latitude: 34.02803 Longitude: -118.37673</p>
<p>Highway Post Mile: N/A</p>
<p>Railroad Milepost: N/A</p>
<p>Nearest Address and Thomas Guide #: 3459 McManus Ave. Culver City, CA 90232 632 J-7</p>
<p>Cell Service: Yes</p>

Driving Directions

From the South (Long Beach): I-405 North to La Cienega Blvd. to Washington Blvd. Turn left on Washington Blvd. to McManus Ave. Turn left on McManus Ave. to Syd Kronenthal Park.

From the North (Ventura): US-101 South to I-405 South to I-10 E. Exit La Cienega Blvd., take Venice Blvd. and Cattaraugus Ave. to McManus Ave.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall
- Homeless encampments
- Steep banks
- Active park, careful of park occupants



Site Description and Field Notes

Site Location/Segment: BAL-LA-A-010, Sandbag Site Strategy

Walk south along eastern park fence adjacent to baseball diamond to access Ballona Creek. Much of the creek upstream of Centinela Ave. looks like this spot, so sandbag dams are appropriate wherever there is access. Large staging area for response vehicles, command post, and temporary storage tanks. Personnel access to the channel bottom from the bike path. Use a 20 ft. extension ladder because of vertical sides.

Site Contact/s:

LA County Public Works
(562) 861-0316
(626) 458-4357 After Hours

Site Images



Upstream



Downstream



Entrance

RR = River Right RL = River Left

Photo Date: 12/22/2017

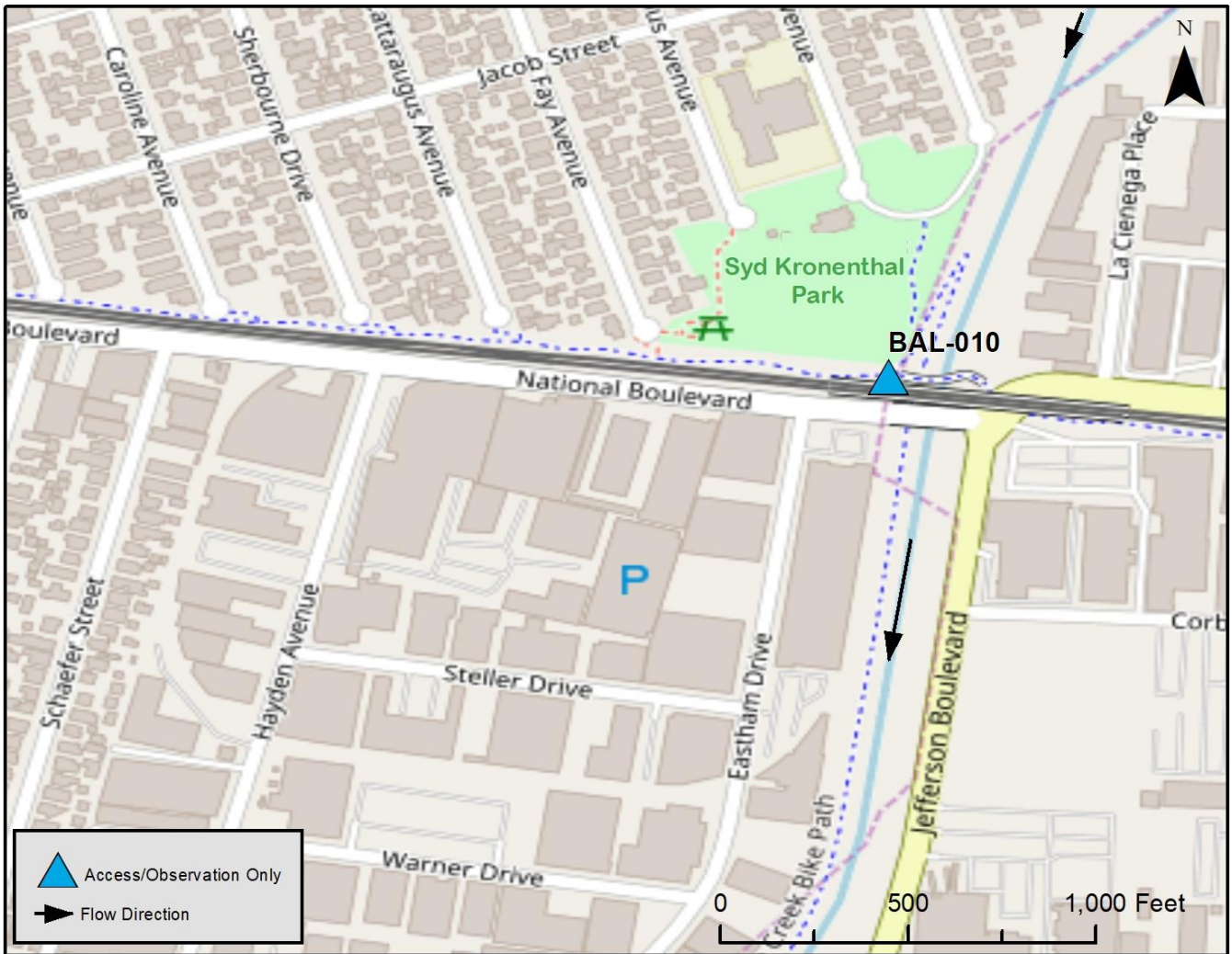
<p>Latitude: 34.02693 Longitude: -118.37701</p>
<p>Highway Post Mile: N/A</p>
<p>Railroad Milepost: N/A</p>
<p>Nearest Address and Thomas Guide #: 5741 W Jefferson Blvd Los Angeles, CA 90016 632 J-7</p>
<p>Cell Service: Yes</p>

Driving Directions

From the South (Long Beach): I-405 North to La Cienega Blvd. left on Rodeo Rd., right on Jefferson Blvd., left on National Blvd.

From the North (Ventura): US-101 South to I-405 South to I-10 East. Exit National Blvd. east to Jefferson Blvd. at Exposition Rail Line on bike path.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall
- Homeless encampments/biological hazard
- Locked gates
- Vehicle traffic

Site Description and Field Notes

Site Location/Segment: BAL-LA-A-010, Sandbag Site Strategy

Access location from Jefferson Blvd. and National Blvd. Observations can be made from bike path running over Ballona Creek parallel to National Blvd. Access to Ballona Creek can be made along Syd Kronenthal Park. Limited staging on bike path. Large staging area at nearby Syd Kronenthal Park. Personnel access to the channel bottom from the bike path. Use a 20 ft. extension ladder because of vertical sides.

Site Contact/s:

LA County Public Works
(562) 861-0316
(626) 458-4357 After Hours

Site Images



Upstream



Downstream



Entrance

RR = River Right RL = River Left

Photo Date: 7/14/2017

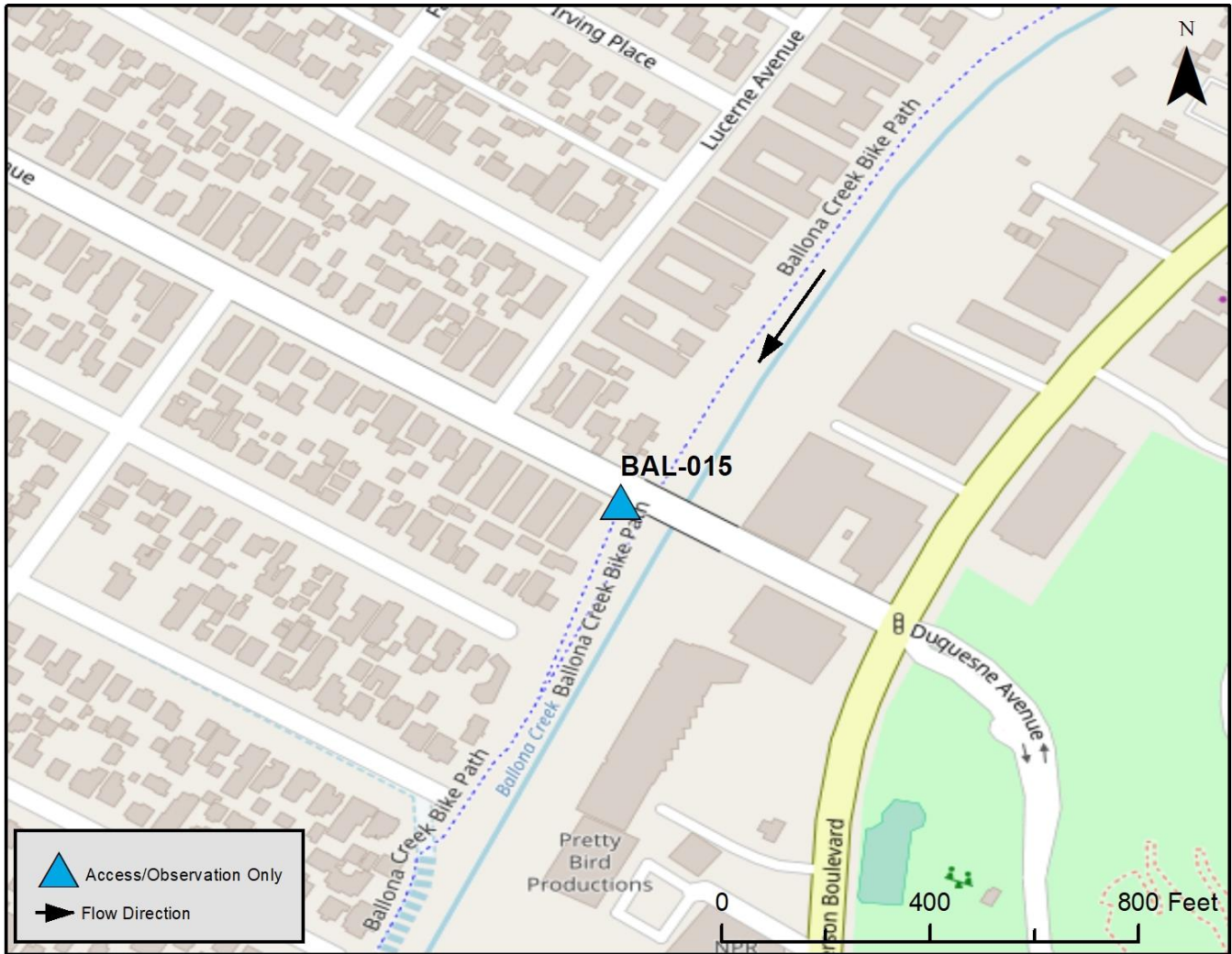
Latitude: 34.01743 Longitude: -118.38948
Highway Post Mile: N/A
Railroad Milepost: N/A
Nearest Address and Thomas Guide #: 4343 Duquesne Ave Culver City, CA 90232 672 H-2
Cell Service: Yes

Driving Directions

From the South (Long Beach): I-405 North to Sepulveda Blvd. toward Slauson Ave. turn right on Playa St. continue onto Overland Ave., turn right onto Jefferson Blvd. and then left onto Duquesne Ave.

From the North (Ventura): US-101 South to I-405 South to I-10 East. Exit Robertson Blvd. and continue onto Higuera St., turn right onto Lucerne Ave. and then left onto Duquesne Ave.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swift water after rainfall
- Homeless encampments
- Steep banks
- Vehicle/bike traffic

Site Description and Field Notes

Site Location/Segment: BAL-LA-A-015, Sandbag Site Strategy

Residential neighborhood. Limited staging on bike path. Observations can be made from Duquesne Ave. bridge. Personnel access to the channel bottom from the bike path. Use a 20 ft. extension ladder because of vertical sides.

Site Contact/s:

LA County Public Works
(562) 861-0316
(626) 458-4357 After Hours

Site Images



Upstream



Downstream

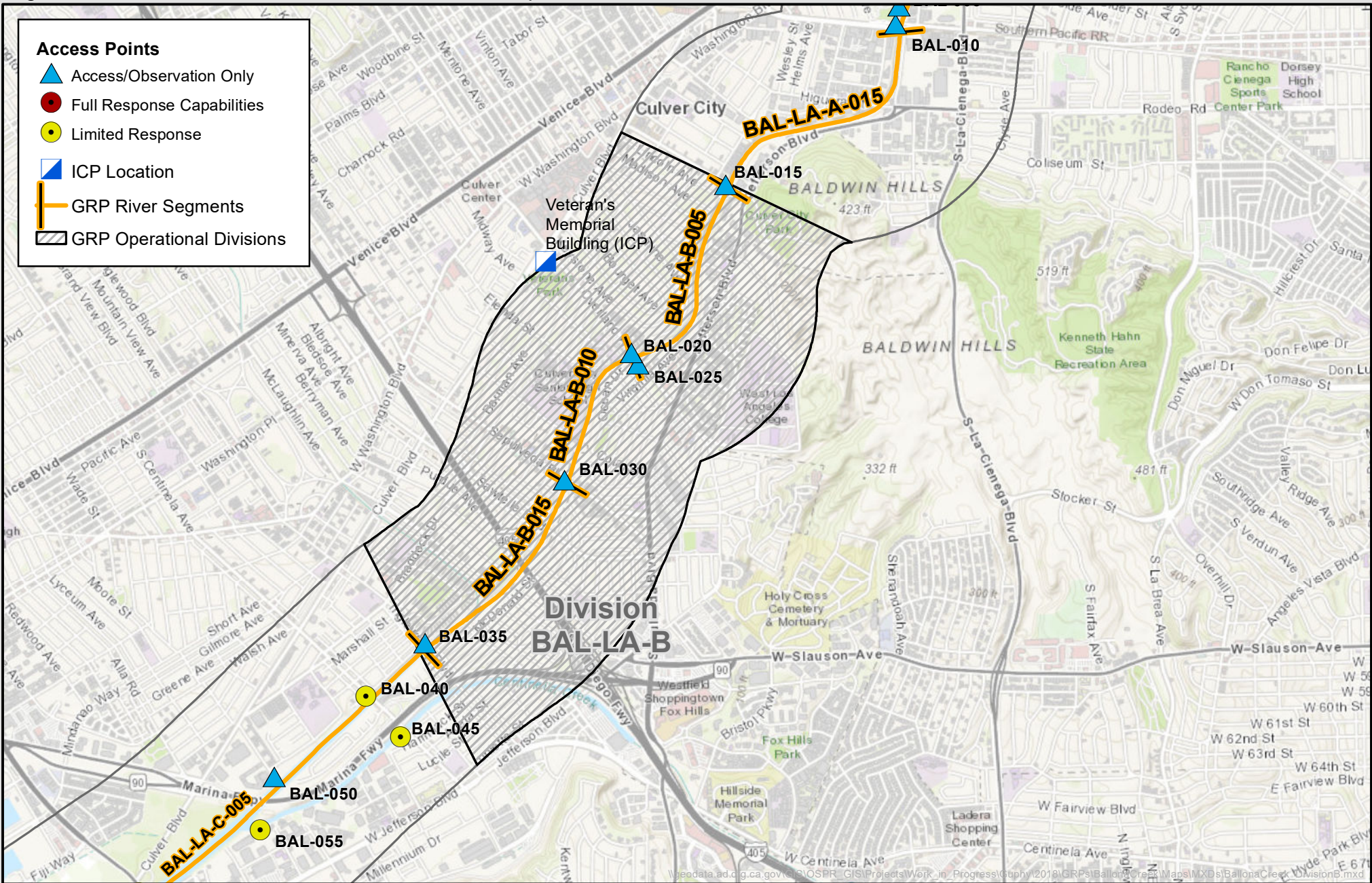



Entrance

RR = River Right RL = River Left

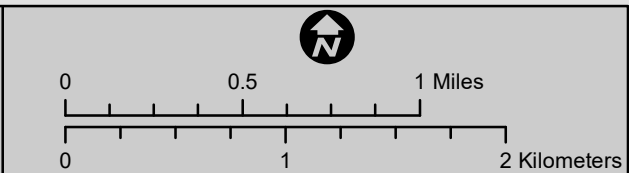
Photo Date: 7/14/2017

Figure 3-3: Ballona Creek GRP Division BAL-LA-B Map




Calif. Dept. of Fish and Wildlife
 Office of Spill Prevention and Response
 Data Source: CDFW-OSPR
 Requestor: OSPR
 Author: S. Paine
 Date Created: 02/12/2019
 NAD_1983_California_Teale_Albers

Ballona Creek Geographic Response Plan Division BAL-LA-B



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Latitude: 34.0074
Longitude: -118.39653

Highway Post Mile: N/A

Railroad Milepost: N/A

Nearest Address and Thomas Guide #:
 4975 Overland Ave
 Culver City, CA 90230
 672 G-3

Cell Service: Yes

Driving Directions

From the South (Long Beach): I-405 North to Sepulveda Blvd. toward Slauson Ave. Turn right on Playa St. continue onto Overland Ave. to Ballona Creek.

From the North (Ventura): US-101 South to I-405 South. Exit Culver Blvd./Washington Blvd. Turn left onto Sawtelle Blvd., left on Culver Blvd. and right onto Overland Ave. to Ballona Creek.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall
- Homeless encampments
- Steep banks
- Vehicle/bike traffic

Site Description and Field Notes

Site Location/Segment: BAL-LA-B-005, Sandbag Site Strategy

Limited staging on bike path. Observations can be made from Overland Ave. bridge. Personnel access to the channel bottom from the bike path by walking down the sloped bank. Access near the Culver City Library.

Site Contact/s:

LA County Public Works
(562) 861-0316
(626) 458-4357 After Hours

Site Images



Upstream



Downstream



Entrance

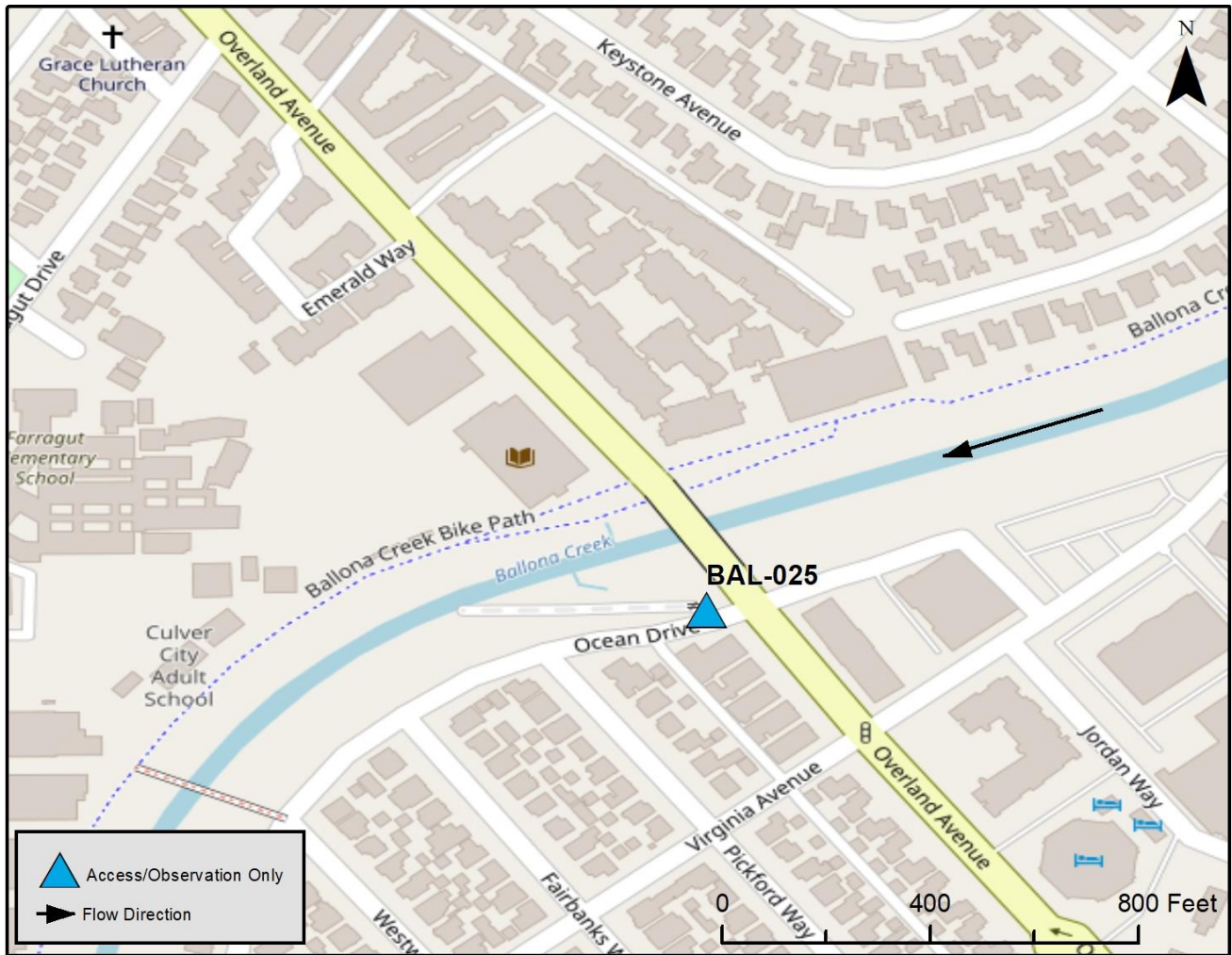
RR = River Right RL = River

Photo Date: 7/14/2017

<p>Latitude: 34.00670 Longitude: -118.39607</p>
<p>Highway Post Mile: N/A</p>
<p>Railroad Milepost: N/A</p>
<p>Nearest Address and Thomas Guide #: 4975 Overland Ave. Culver City, CA 90230 672 G-3</p>
<p>Cell Service: Yes</p>

Driving Directions	
From the South (Long Beach):	I-405 North to Sepulveda Blvd. toward Slauson Ave. Turn right on Playa St. continue onto Overland Ave. to Ballona Creek.
From the North (Ventura):	US-101 South to I-405 South. Exit Culver Blvd./Washington Blvd. Turn left onto Sawtelle Blvd., left on Culver Blvd. and right onto Overland Ave. to Ballona Creek.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall
- Homeless encampments
- Steep banks
- Vehicle traffic
- Locked gates

Site Description and Field Notes

Site Location/Segment: BAL-LA-B-010, Sandbag Site Strategy

Locked utility gate. Medium sized area inside gate for response vehicle and equipment storage. Observations can be made from Overland Ave. bridge. Personnel, passenger vehicles, small trucks, small trailers, and heavy equipment access to channel bottom via ramp.

Site Contact/s:

LA County Public Works
(562) 861-0316
(626) 458-4357 After Hours

Site Images



Upstream
Photo Date: 12/22/2017



Downstream
Photo Date: 7/14/2017



Entrance

RR = River Right RL = River Left

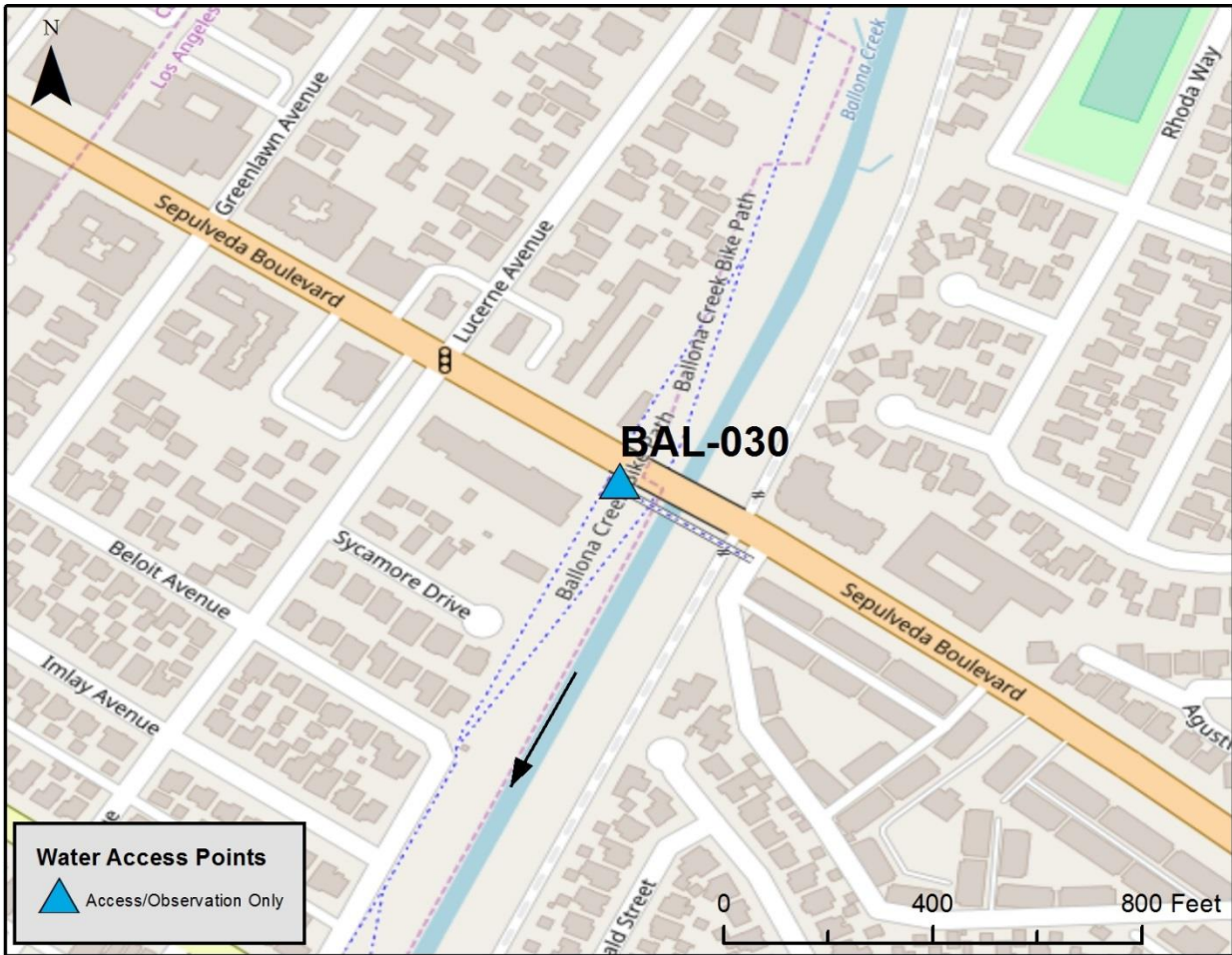
<p>Latitude: 33.99979 Longitude: -118.40151</p>
<p>Highway Post Mile: N/A</p>
<p>Railroad Milepost: N/A</p>
<p>Nearest Address and Thomas Guide #: 4929 Sepulveda Blvd Los Angeles, CA 90230 672 G-4</p>
<p>Cell Service: Yes</p>

Driving Directions

From the South (Long Beach): I-405 North to Sepulveda Blvd. toward Slauson Ave. to Ballona Creek.

From the North (Ventura): US-101 South to I-405 South. Exit Culver Blvd./Washington Blvd. Turn left onto Sawtelle Blvd., left on Culver Blvd. and right onto Sepulveda Blvd. to Ballona Creek.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall
- Homeless encampments
- Steep banks
- Vehicle/bike and pedestrian traffic

Site Description and Field Notes

Site Location/Segment: BAL-LA-B-010, Sandbag Dam Site Strategy

Limited staging on bike path. Observations can be made from Sepulveda Blvd. bridge. Personnel access to the channel bottom from the bike path by walking down the sloped bank.

Site Contact/s:

LA County Public Works
(562) 861-0316
(626) 458-4357 After Hours

Site Images



Upstream



Downstream



Entrance

RR = River Right RL = River Left

Photo Date: 7/14/17

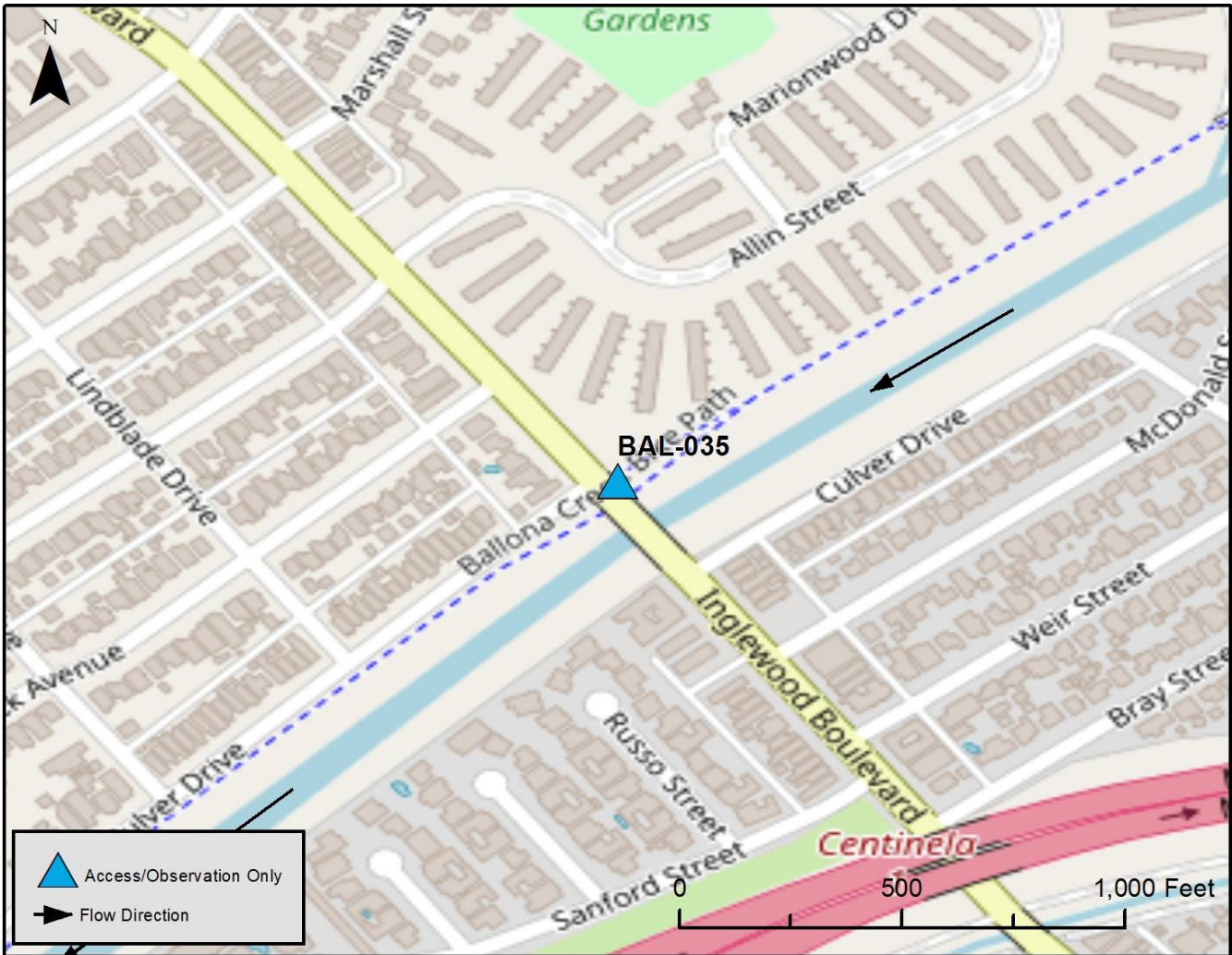
<p>Latitude: 33.99013 Longitude: -118.41182</p>
<p>Highway Post Mile: N/A</p>
<p>Railroad Milepost: N/A</p>
<p>Nearest Address and Thomas Guide #: 4900 Block of Inglewood Blvd. Culver City, CA 90230 672 E-6</p>
<p>Cell Service: Yes</p>

Driving Directions

From the South (Long Beach): I-405 North to Jefferson Blvd. Take Jefferson Blvd. south, turn right onto Inglewood Blvd. to Ballona Creek.

From the North (Ventura): US-101 South to I-405 South. Exit Jefferson Blvd. and head south, turn right onto Inglewood Blvd. to Ballona Creek.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall
- Homeless encampments
- Steep banks
- Vehicle/bike traffic

Site Description and Field Notes

Site Location/Segment: BAL-LA-B-015, Sandbag Dam Site Strategy

Limited staging on bike path. Sepulveda channel outfall located to the east upstream. Observations can be made from Inglewood Blvd. bridge. Personnel access to the channel bottom from the bike path by walking down the sloped bank.

Site Contact/s:

LA County Public Works
(562) 861-0316
(626) 458-4357 After Hours

Site Images



Upstream



Downstream

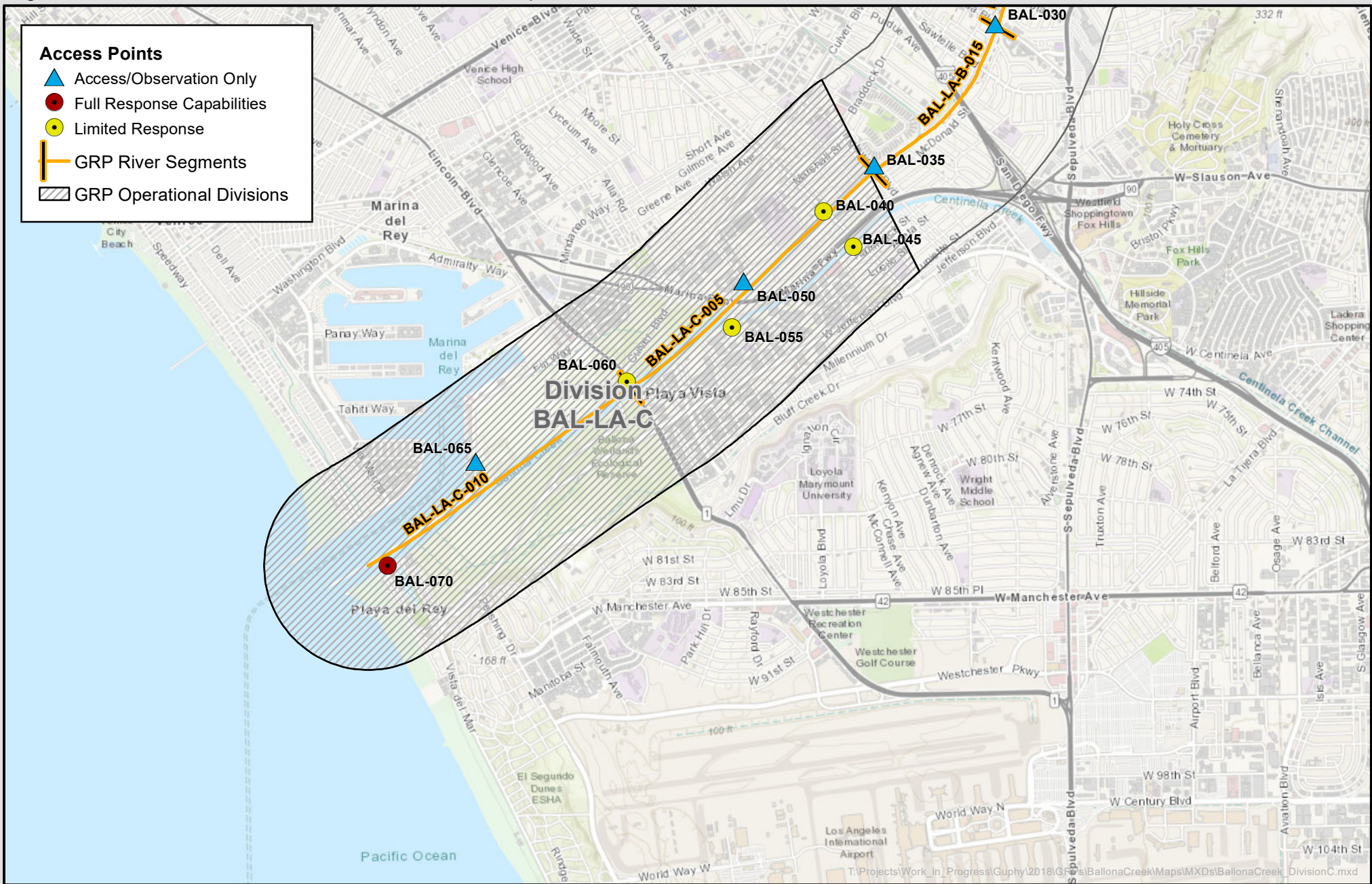



Entrance

RR = River Right RL = River Left

Photo Date: 7/14/2017

Figure 3-3: Ballona Creek GRP Division BAL-LA-C Map

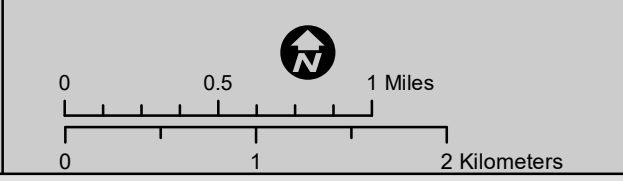



Calif. Dept. of Fish and Wildlife
 Office of Spill Prevention and Response

 Data Source: CDFW-OSPR
 Requestor: OSPR
 Author: S. Paine
 Date Created: 02/25/2019

 NAD_1983_California_Teale_Albers

Ballona Creek Geographic Response Plan Division BAL-LA-C



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Latitude: 33.98695 Longitude: -118.41614
Highway Post Mile: N/A
Railroad Milepost: N/A
Nearest Address and Thomas Guide #: 5000 S Centinela Ave Los Angeles, CA 90066 672 E-6
Cell Service: Yes

Driving Directions	
From the South (Long Beach):	I-405 North to CA-90 West toward Marina Del Rey. Take the exit for Centinela Ave., turn right to Ballona Creek.
From the North (Ventura):	US-101 South to I-405 South to CA-90 West toward Marina Del Rey. Take the exit for Centinela Ave., turn right to Ballona Creek.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall
- Homeless encampments
- Steep banks
- Vehicle/bike traffic

Resources-At-Risk (Site and Downstream)

Ecological: California Least Tern, Belding's Savannah Sparrow, Burrowing Owl, Coastal California Gnatcatcher, Least Bell's Vireo, Light-footed, Ridgway's Rail, Least Bittern, pallid bat, south coast marsh vole, western mastiff bat, Silvery Legless Lizard, El Segundo blue butterfly, Nuttall's scrub oak, Orcutt's pincushion, southern tarplant.

Economic: UCLA Marina Aquatic Center (310) 823-0048.

Tribal: Contact the Native American Heritage Commission at (916) 373-3710.

Cultural and Historic: Contact the South Central Coastal Information Center at (657) 278-5395.

Site Description and Field Notes

<p>River Width: 27 meters (89 feet)</p>	<p>Site Location/Segment: BAL-LA-C-005</p>
<p>Gradient: Low</p>	<p>Limited staging on both sides of the creek. Boom trucks, trailer, vacuum trucks and temporary storage tanks could use the space but it is limited and narrow. There are many existing tie offs for boom. Observations can be made from Centinela Ave. bridge. Personnel access to the channel bottom from the bike path by walking down the sloped bank.</p>
<p>Site Contact/s: LA County Public Works (562) 861-0316 (626) 458-4357 After Hours</p>	<p>Vehicular Access: Passenger vehicles, small trucks, and small trailers.</p> <p>Recreational Use: N/A</p> <p>Boat Launches: N/A</p>
<p>ESI Shoreline Type: 1B Exposed, solid man-made structures; 8F Vegetated, steeply-sloping bluffs; 9B Vegetated low banks; 10B Freshwater marshes</p>	

Site Images



Upstream



Downstream



Straight Across



Entrance

RR = River Right RL = River Left

Photo Date: 5/31/2017

Site Objectives: Sandbag dam and/or boom to prevent further movement of oil and allow for collection of oil.

Implementation: Construct sandbag underflow dam upstream of road crossing with a minimum of 3 ft. high. Deploy boom on downstream side of road crossing to consist of 200 ft. of containment boom with a minimum of a 45-degree angle utilizing existing anchor points. Use a leader rope on the boom and walk leader rope across the bridge. Pull the leader rope across the creek with boom attached.

Staging Area Location and Capabilities/Amenities/Waste Management:

Limited on both sides of the creek. Boom trucks, trailer, vacuum trucks and temporary storage tanks could use the space but it is limited and narrow.

Response Strategy Map (overview)



Table of Response Resources

Type	Sub-Type	Size	Unit	QTY - Unit	Special Equipment or Comments
Sandbags					Sandbag dam minimum of 3 ft. high
Piping					For sandbag dam underflow
Boom	Swiftwater, Swamp, or Harbor	8, 12, or 18	Inch	200 ft.	
Rope				200 ft.	For leader on boom deployment
Staff	Staff to Deploy			4	

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Latitude: 33.98448 Longitude: -118.41368
Highway Post Mile: N/A
Railroad Milepost: N/A
Nearest Address and Thomas Guide #: 12415 Hammack St. Los Angeles, CA 90066 672 E-6
Cell Service: Yes

Driving Directions

From the South (Long Beach): I-405 North to CA-90 West toward Marina Del Rey. Exit Centinela Ave. and turn left. Turn right onto Hammack St. the alleyway is the first right.

From the North (Ventura): US-101 South to I-405 South to CA-90 West toward Marina Del Rey. Exit Centinela Ave. and turn left. Turn right onto Hammack St., the alleyway is the first right.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall
- Homeless encampments
- Steep banks
- Locked gates

Resources-At-Risk (Site and Downstream)

Ecological: California Least Tern, Belding's Savannah Sparrow, Burrowing Owl, Coastal California Gnatcatcher, Least Bell's Vireo, Light-footed, Ridgway's Rail, Least Bittern, pallid bat, south coast marsh vole, western mastiff bat, Silvery Legless Lizard, El Segundo blue butterfly, Nuttall's scrub oak, Orcutt's pincushion, southern tarplant

Economic: UCLA Marina Aquatic Center (310) 823-0048.

Tribal: Contact the Native American Heritage Commission at (916)-373-3710.

Cultural and Historic: Contact the South Central Coastal Information Center at (657) 278-5395.

Site Description and Field Notes

<p>River Width: 21 meters (69 feet)</p>	<p>Site Location/Segment: BAL-LA-C-005</p>
<p>Gradient: Low</p>	<p>Gated staging area in alleyway. Large enough for Baker tanks and heavy equipment. Observations can be made by entering locked gates or from Centinela Ave. bridge. Personnel, passenger vehicles, small trucks, small trailers, and small equipment access to channel bottom via ramp.</p>
<p>Site Contact/s: LA County Public Works (562) 861-0316 (626) 458-4357 After Hours</p>	<p>Vehicular Access: Passenger vehicles, small trucks, small trailers, and small equipment.</p> <p>Recreational Use: N/A</p> <p>Boat Launches: N/A</p> <p>ESI Shoreline Type: 1B Exposed, solid man-made structures; 9B Vegetated low banks</p>

Site Images



Upstream



Downstream



Straight Across



Entrance

RR = River Right RL = River Left

Photo Date: 5/31/2017



Site Objectives: Underflow dam to prevent further movement of oil and allow for collection of oil.

Implementation: Construct sandbag underflow dam upstream of access ramp with a minimum of 3 ft. high.

Staging Area Location and Capabilities/Amenities/Waste Management: Gated staging area in alleyway. Large enough for temporary storage tanks and heavy equipment.

Response Strategy Map (overview)

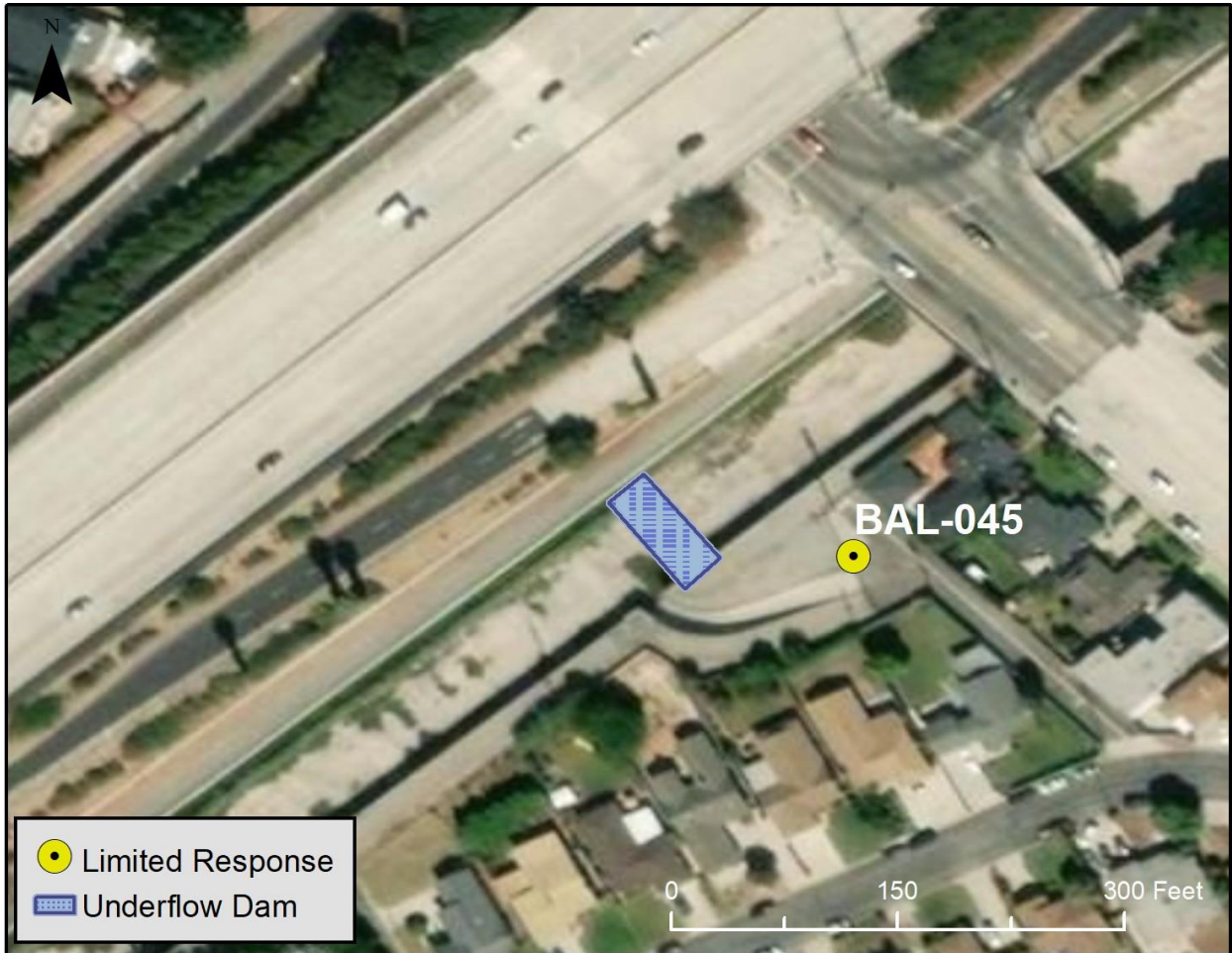


Table of Response Resources

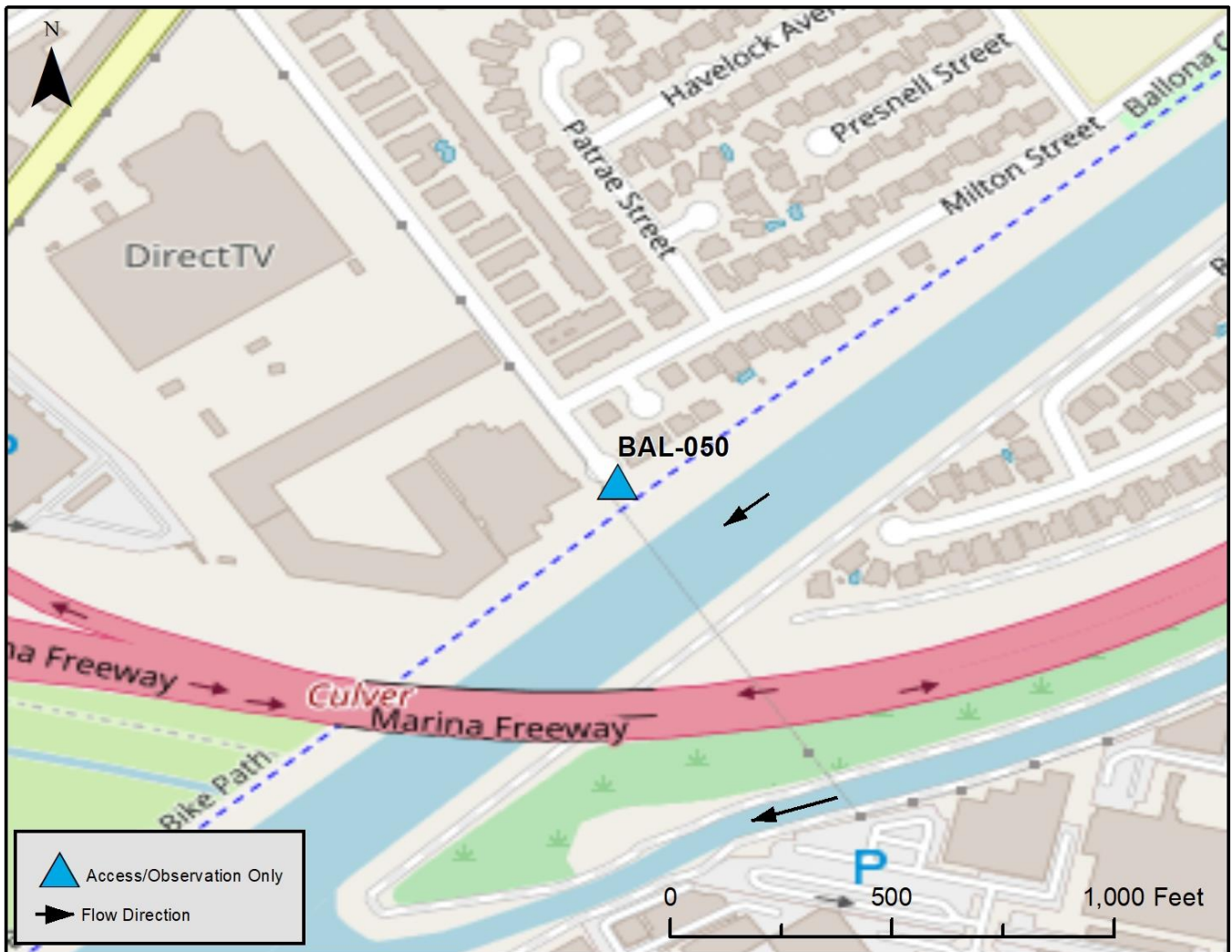
Type	Sub-Type	Size	Unit	QTY - Unit	Special Equipment or Comments
Sandbags					Sandbag dam minimum of 3 ft. high
Piping					For sandbag dam underflow

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<p>Latitude: 33.98219 Longitude: -118.42288</p>
<p>Highway Milepost: N/A</p>
<p>Railroad Milepost: N/A</p>
<p>Nearest Address and Thomas Guide #: 4935 McConnell Ave. Los Angeles, CA 90066 672 D-7</p>
<p>Cell Service: Yes</p>

Driving Directions	
From the South (Long Beach):	I-405 North to CA-90 West. Exit Culver Blvd., head north on Culver Blvd. and turn right onto McConnell Ave.
From the North (Ventura):	US-101 South to I-405 South to CA-90 West. Exit Culver Blvd., head north and Culver Blvd. and turn right onto McConnell Ave.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall
- Homeless encampments
- Steep banks

Site Description and Field Notes

Site Location/Segment: BAL-LA-C-005

Staging area on cul-de-sac at end of McConnell Ave. Observations can be made from the bike path. Personnel access to the channel bottom from the bike path by walking down the sloped bank.

Site Contact/s:

LA County Public Works
(562) 861-0316
(626) 458-4357 After Hours

Site Images



Upstream



Downstream



Entrance

RR = River Right RL = River Left

Photo Date: 5/31/2017

Latitude: 33.97901 Longitude: -118.42397
Highway Post Mile: N/A
Railroad Milepost: N/A
Nearest Address and Thomas Guide #: 5301 Beethoven St. Los Angeles, CA 90066 672 D-7
Cell Service: Yes

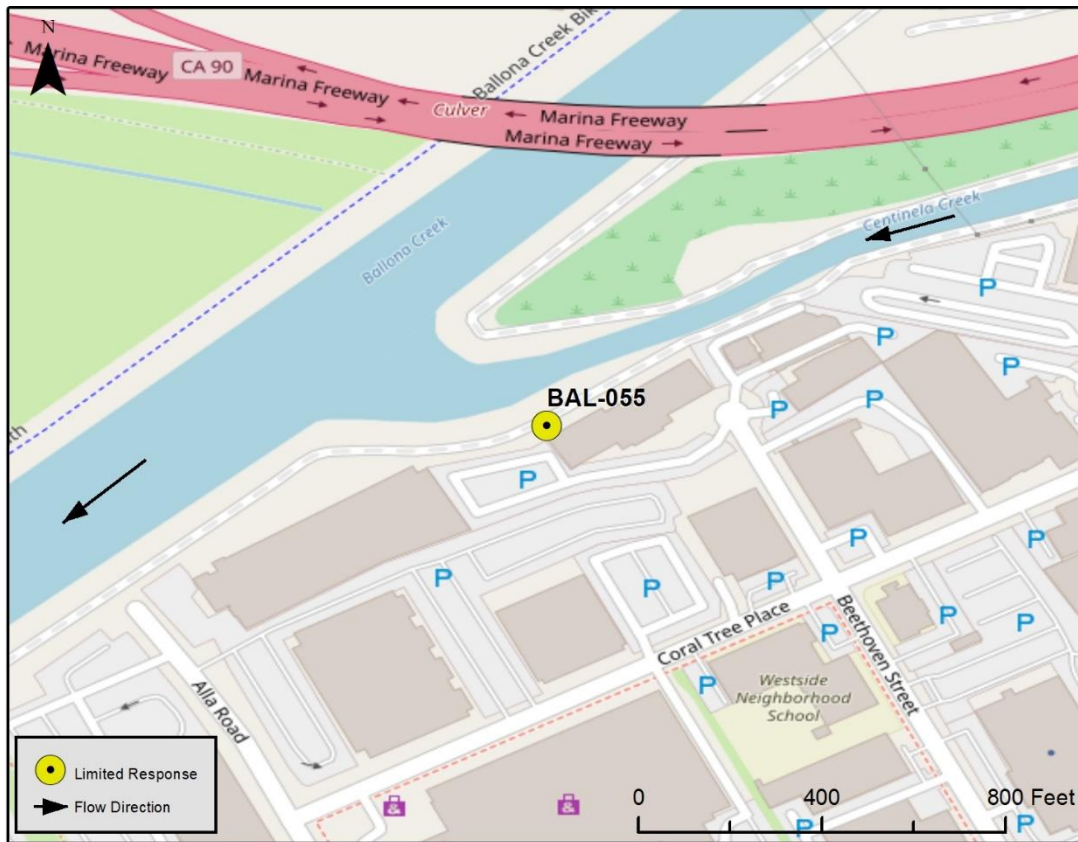
Driving Directions

From the South (Long Beach): I-405 North to Jefferson Blvd., head south on Jefferson Blvd. and turn right onto Beethoven St. to Centinela Creek.

From the North (Ventura): US-101 South to I-405 South to Jefferson Blvd., head south on Jefferson Blvd. and turn right onto Beethoven St. to Centinela Creek.

For physical access enter from Hammock St alleyway: Head back north on Jefferson Blvd., turn left and go north on South Centinella Ave., turn left onto Hammock St., the alleyway is the first right.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall
- Homeless population utilizes the area
- Steep banks
- Gates controlled by Los Angeles County Public Works, need key

Resources-At-Risk (Site and Downstream)

Ecological: California Least Tern, Belding's Savannah Sparrow, Burrowing Owl, Coastal California Gnatcatcher, Least Bell's Vireo, Light-footed, Ridgway's Rail, Least Bittern, pallid bat, south coast marsh vole, western mastiff bat, Silvery Legless Lizard, El Segundo blue butterfly, Nuttall's scrub oak, Orcutt's pincushion, southern tarplant.

Economic: UCLA Marina Aquatic Center (310) 823-0048.

Tribal: Contact the Native American Heritage Commission at (916)-373-3710.

Cultural and Historic: Contact the South Central Coastal Information Center at (657) 278-5395.

Site Description and Field Notes

<p>River Width: 20 meters (66 feet)</p>	<p>Site Location/Segment: BAL-LA-C-005</p>
<p>Gradient: Low</p>	<p>Gated staging area in alleyway. Large enough for temporary storage tanks and heavy equipment. Access to Centinela Creek can be made from Hammack St. alleyway. Observations can be made from the County access road. Personnel access to the channel bottom from the County access road by walking down the sloped bank.</p>
<p>Site Contact/s: LA County Public Works (562) 861-0316 (626) 458-4357 After Hours</p>	<p>Vehicular Access: Passenger vehicles, small trucks, small trailers and small equipment at Hammack St. alleyway ramp.</p> <p>Recreational Use: N/A</p> <p>Boat Launches: N/A</p> <p>ESI Shoreline Type: 1B Exposed, solid man-made structures; 7 Exposed tidal flats; 9B Vegetated low banks</p>

Site Images



Upstream



Downstream



Straight Across



Entrance

RR = River Right RL = River Left

Photo Date: 5/31/2017

Site Objectives: Sandbag dam and/or boom to prevent further movement of oil and allow for collection of oil.

Implementation: Construct sandbag underflow dam with a minimum of 3 ft. high. Sandbag dam best deployed in section with vertical walls. Deploy boom to consist of 150 ft. of containment boom with a minimum of a 45-degree angle. Use a leader rope. Throw leader rope across creek to staff on the other bank. Boom best deployed in section with sloped walls.

Staging Area Location and Capabilities/Amenities/Waste Management:

Limited staging on bike path. Best staging is at Centinela Creek at Hammack St. alleyway. Large enough for temporary storage tanks and heavy equipment.

Response Strategy Map (overview)



Table of Response Resources

Type	Sub-Type	Size	Unit	QTY - Unit	Special Equipment or Comments
Sandbags					Sandbag dam minimum of 3 ft. high
Piping					For sandbag dam underflow
Boom	Swiftwater, Swamp, or Harbor	8, 12, or 18	Inch	150 ft.	
Rope				150 ft.	For leader on boom deployment
Stakes				2	For anchoring boom ends
Staff	Staff to Deploy			4	

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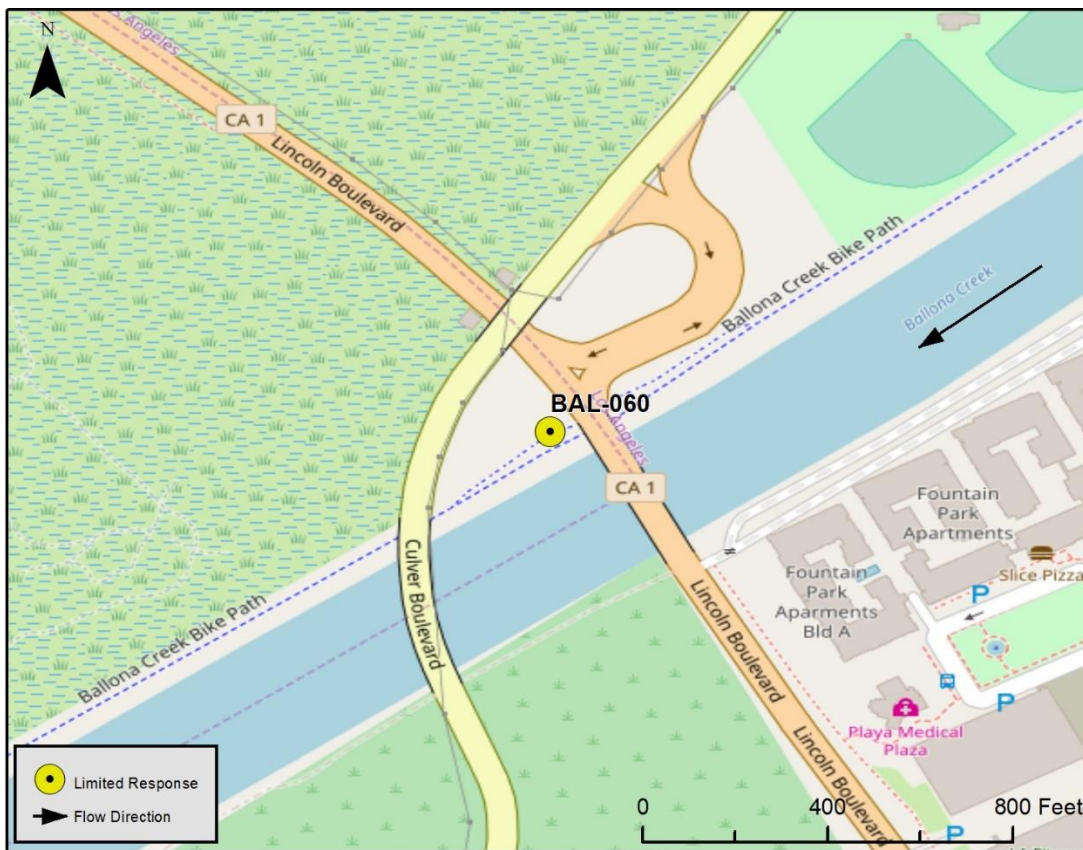
Latitude: 33.97534 Longitude: -118.43280
Highway Post Mile: N/A
Railroad Milepost: N/A
Nearest Address and Thomas Guide #: 4750 Admiralty Way Marina Del Rey, CA 90292 702 C-1
Cell Service: Yes

Driving Directions

From the South (Long Beach): I-405 North to CA-90 West turn left onto Lincoln and continue to Ballona Creek.

From the North (Ventura): US-101 South to I-405 South to CA-90 West turn left onto Lincoln and continue to Ballona Creek.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall
- Homeless encampments
- Steep banks
- Vehicle/bike traffic

Resources-At-Risk (Site and Downstream)

Ecological: California Least Tern, Belding's Savannah Sparrow, Burrowing Owl, Coastal California Gnatcatcher, Least Bell's Vireo, Light-footed, Ridgway's Rail, Least Bittern, pallid bat, south coast marsh vole, western mastiff bat, Silvery Legless Lizard, El Segundo blue butterfly, Nuttall's scrub oak, Orcutt's pincushion, southern tarplant.

Economic: UCLA Marina Aquatic Center (310) 823-0048.

Tribal: Contact the Native American Heritage Commission at (916)-373-3710.

Cultural and Historic: Contact the South Central Coastal Information Center at (657) 278-5395.

Site Description and Field Notes

<p>River Width: 80 meters (264 feet)</p>	<p>Site Location/Segment: BAL-LA-C-010</p> <p>Limited staging on both sides of the creek. Boom trucks, trailer, vacuum trucks and temporary storage tanks could use the space but it is limited and narrow. Observations can be made from the Lincoln Blvd. bridge. Personnel access to the channel bottom from the bike path by walking down the sloped bank.</p>
<p>Gradient: Low</p>	
<p>Site Contact/s: LA County Public Works (562) 861-0316 (626) 458-4357 After Hours</p>	<p>Vehicular Access: Passenger vehicles, small trucks, and small trailers.</p> <p>Recreational Use: N/A</p> <p>Boat Launches: N/A</p> <p>ESI Shoreline Type: 1B Exposed, solid man-made structure</p>

Site Images



Upstream



Downstream



Straight Across



Entrance

RR = River Right RL = River Left

Photo Date: 3/27/2017

Site Objectives: Boom to prevent further movement of oil and allow for collection of oil.

Implementation: Deploy boom on upstream side of road crossing to consist of 600 ft. of containment boom with a minimum of a 45-degree angle. Use a leader rope on the boom and walk leader rope across the bridge. Pull the leader rope across the creek with boom attached.

Staging Area Location and Capabilities/Amenities/Waste Management:
 Limited on both sides of the creek. Boom trucks, trailer, vacuum trucks and Baker tanks could use the space but it is limited and narrow.

Response Strategy Map (overview)



Table of Response Resources

Type	Sub-Type	Size	Unit	QTY - Unit	Special Equipment or Comments
Boom	Harbor	18 or 24	Inch	600 ft.	
Rope				600 ft.	
Staff	Staff to Deploy			4	

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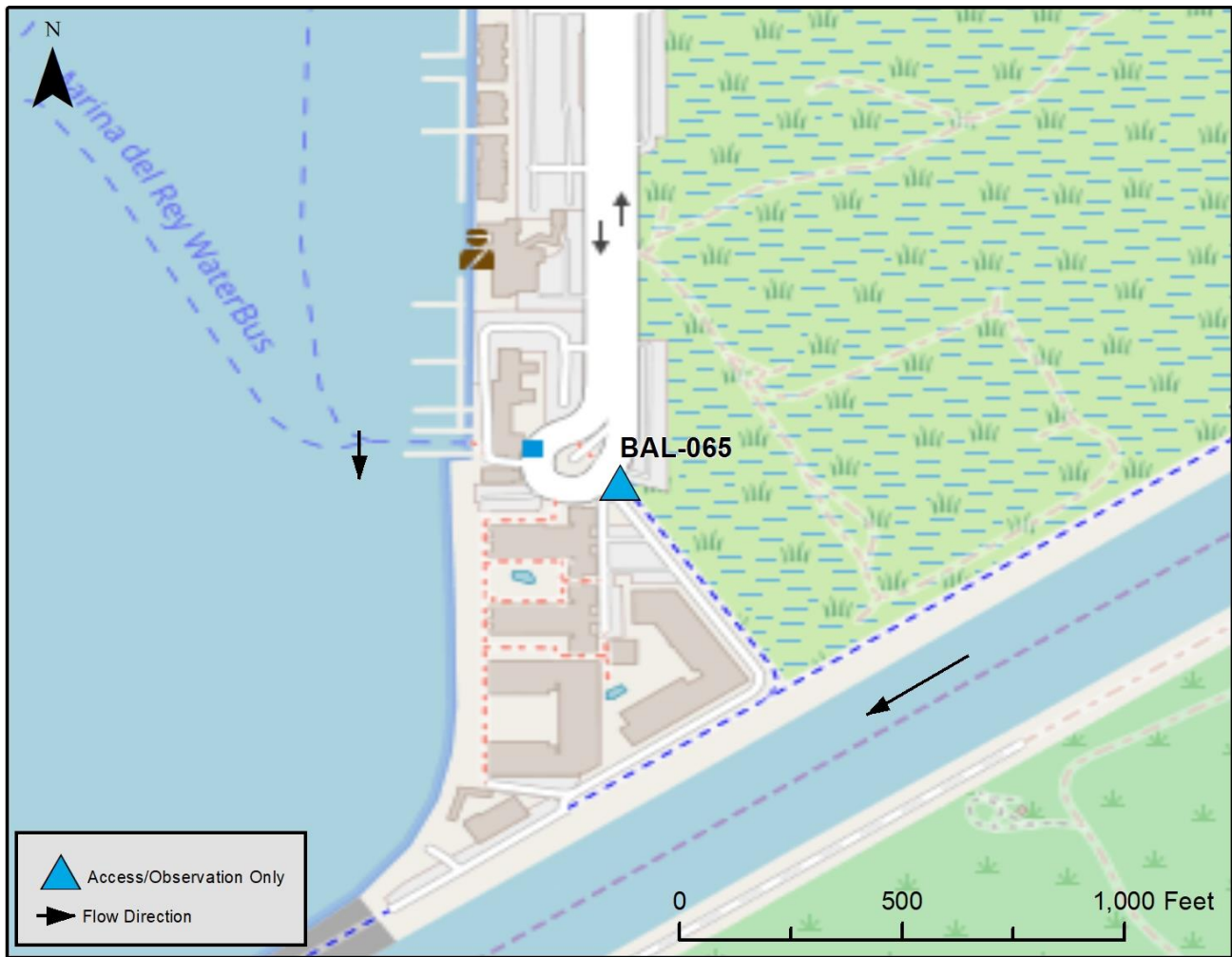
<p>Latitude: 33.96997 Longitude: -118.44553</p>
<p>Highway Milepost: N/A</p>
<p>Railroad Milepost: N/A</p>
<p>Nearest Address and Thomas Guide #: 13900 Fiji Way Marina Del Rey, CA 90292 702 B-2</p>
<p>Cell Service: Yes</p>

Driving Directions

From the South (Long Beach): I-405 North to CA-90 West. Turn left onto Mindanao Way, left onto Admiralty Way, right onto Fiji Way and continue to entrance of bike path.

From the North (Ventura): US-101 South to I-405 South to CA-90 West. Turn left onto Mindanao Way, left onto Admiralty Way, right onto Fiji Way and continue to entrance of bike path.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall
- Homeless encampments
- Steep banks
- Vehicle/bike traffic

Site Description and Field Notes

Site Location/Segment: BAL-LA-C-010

Large parking lot adjacent to the start of the Marvin Braude Bike Trail on Fiji Way. Parking lot and entrance to access is approximately 550 feet from Ballona Creek. Observations can be made from the bike path. Personnel access to the channel bottom from the bike path by walking down the sloped bank.

Site Contact/s:

LA County Public Works
 (562) 861-0316
 (626) 458-4357 After Hours

LA County dispatch (Ballona Wetland gates) (626) 458-4357

City of Los Angeles Recreation and Parks (Del Rey Lagoon gates) (213) 216-8202

Site Images



Upstream
 Photo Date: 1/21/2018



Downstream
 Photo Date: 3/27/2017



Entrance

RR = River Right RL = River Left

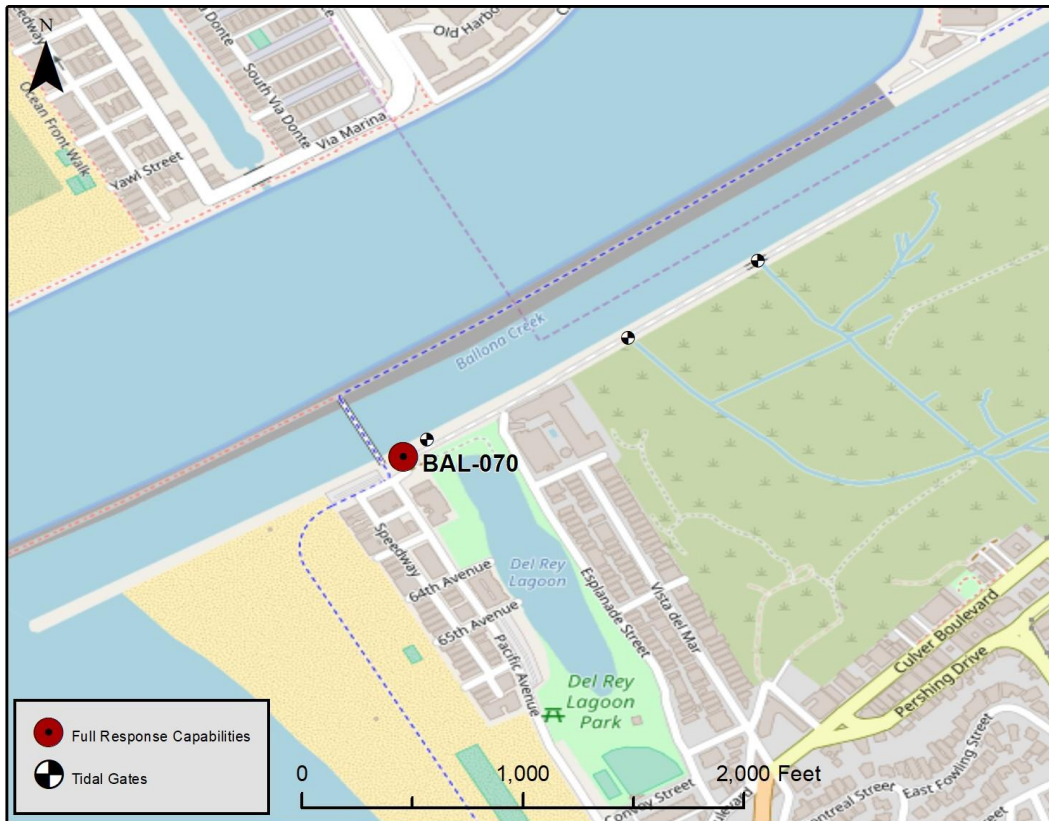
Latitude: 33.96281 Longitude: -118.45301
Highway Post Mile: N/A
Railroad Milepost: N/A
Nearest Address and Thomas Guide #: 6209 Pacific Ave. Playa Del Rey, CA 90293 702 A-2
Cell Service: Yes

Driving Directions

From the South (Long Beach): I-405 North to CA-90 West. Exit Culver Blvd., turn left on to Culver Blvd. and head south and turn right onto Pacific Ave.

From the North (Ventura): US-101 South to I-405 South to CA-90 West. Exit Culver Blvd., turn left on to Culver Blvd. and head south and turn right onto Pacific Ave.

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swiftwater after rainfall
- Homeless encampments
- Steep banks
- Vehicle/bike traffic

Resources-At-Risk (Site and Downstream)

Ecological: California Least Tern, Belding's Savannah Sparrow, Burrowing Owl, Coastal California Gnatcatcher, Least Bell's Vireo, Light-footed, Ridgway's Rail, Least Bittern, pallid bat, south coast marsh vole, western mastiff bat, Silvery Legless Lizard, El Segundo blue butterfly, Nuttall's scrub oak, Orcutt's pincushion, southern tarplant.
Ballona Wetlands Ecological Reserve

Economic: UCLA Marina Aquatic Center (310) 823-0048.

Tribal: Contact the Native American Heritage Commission at (916)-373-3710.

Cultural and Historic: Contact the South Central Coastal Information Center at (657) 278-5395.

Site Description and Field Notes

River Width: 80 meters (264 feet)	Site Location/Segment: BAL-LA-C-010
Gradient: Low	Staging: Staging available in parking lots.
Site Contact/s: LA County Public Works (562) 861-0316 (626) 458-4357 After Hours LA County dispatch (Ballona Wetland gates) (626) 458-4357 City of Los Angeles Recreation and Parks (Del Rey Lagoon gates) (213) 216-8202 California Department of Fish and Wildlife, Ballona Wetlands Ecological Reserve (310) 455-3243	Vehicular Access: Passenger vehicles, large trucks, large trailers, and heavy equipment. Observation: Observations can be made from foot bridge/bike path. Personnel access to the channel bottom from the bike path by walking down the sloped bank. Recreational Use: N/A Boat Launches: Public boat launch located nearby at 13477 Fiji Way, Marina Del Rey Harbor. ESI Shoreline Type: 1B Exposed, solid man-made structures; 6B Riprap

Site Images



Upstream
Photo Date: 3/27/2017



Downstream
Photo Date: 3/27/2017



Straight Across
Photo Date: 12/22/2017



Entrance

Entrance photo from Google maps

RR = River Right RL = River Left

Site Objectives: Boom to prevent further movement of oil and allow for collection of oil. Close tidal gates and block culverts to wetlands south of Ballona Creek.

Implementation: Deploy boom on upstream side of pedestrian bridge to consist of 600 ft. of containment boom with a minimum of a 45-degree angle. Use existing tie-offs to secure boom. To close tidal gates call phone numbers in site contact list. Block culvert with sandbags or a plug. Use a leader rope or vessel to deploy boom. Use a leader rope on the boom and walk across the bridge. Pull the leader rope across the bridge with boom attached. Or, launch a vessel and boom from neighboring Marina Del Rey Harbor. The vessel can access this response location.

Staging Area Location and Capabilities/Amenities/Waste Management:
Staging available in parking lots.

Response Strategy Map (overview)



Table of Response Resources

Type	Sub-Type	Size	Unit	QTY - Unit	Special Equipment or Comments
Boom	Harbor	18 or 24	Inch	600 ft.	
Rope				600 ft.	For leader on boom deployment
Vessel w/ operator	Skiff	18 to 24	Ft.	1	
Staff	Staff to Deploy			4	

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Ballona Creek

Geographic Response Plan

Chapter 4 – Resources-At-Risk

4.0 Chapter Overview

This chapter provides information on the environmental, economic, and tribal, cultural and historic resources-at-risk in the Ballona Creek GRP area. It provides a list of known sensitive fish, wildlife, plants, and habitats existing within the bounds of this GRP including seasonal concerns for species and protected lands in the area. Information about the Wildlife Response Plan (WRP) for Oil Spills in California, OWCN, and general information about oiled wildlife can be found in this chapter as well. It offers a list of economic resources that may be impacted by a spill including key contact information for those resources. Finally, this chapter provides information, as well as critical contacts, for tribal and cultural resources, historic properties, and tribal representatives.

The information provided in this chapter can be used for:

- Assisting the EU and Operations in developing additional response strategies beyond those found in [Chapter 3](#).
- Providing resource-at-risk "context" to responders, cleanup workers, and others during the initial phase of a spill response in the GRP area.
- Briefing responders and incident command staff that may be unfamiliar with sensitive resource concerns in the GRP area.
- Providing background information for personnel involved in media presentations and public outreach during a spill incident.

4.1 Wildlife, Fisheries, Plants and Sensitive Habitat Matrix

Environmentally sensitive resources listed in this section include state and federally listed species; California species of special concern and fully protected species; California Native Plant Society (CNPS) listed 1A and 1B plants; U.S. Fish and Wildlife Service (USFWS) designated wetland habitats; commercial and recreational fisheries; and protected lands. Table 4-1 below is a comprehensive list of the known species, habitats, and protected lands that exist within the boundaries of the Ballona Creek GRP as well as seasonal and special considerations including nesting and spawning seasons, seasonal migration, large species concentrations, rookeries and blooming periods for special plant species. The CDFW California Wildlife Habitat Relationship (CWHR) system is a state-of-the-art information system for California's wildlife and is the primary resource for the information provided in Table 4-1 below. Information on the species and habitats listed in Table 4-1 were developed using the best information available at the time of preparation; over time, new species occurrences may be added to reference databases (e.g. CWHR), the status of species may change including becoming listed by the State or federal fish and wildlife agencies, or new information may become available regarding nesting locations and seasons. During a spill incident, the Environmental Unit under the Planning Section will utilize reference databases to ensure that the most up-to-date and accurate information on potential species and habitats in the area are addressed and protections put in place.

Wetlands

Table 4-1 includes a list of USFWS Designated Wetlands that have been mapped in the area of the GRP boundary utilizing <https://www.fws.gov/wetlands/data/mapper.html>. The USFWS defines wetlands as:

"Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports hydrophytes, (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year."
(Cowardin, 1979, Classification of Wetlands and Deepwater Habitats of the United States)

The USFWS definition includes: swamps; freshwater, brackish water, and saltwater marshes; bogs; vernal pools; periodically inundated saltflats; intertidal mudflats; wet meadows; wet pastures; springs and seeps; portions of lakes, ponds, rivers and streams; and all other areas which are periodically or permanently covered by shallow water, or dominated by hydrophytic vegetation, or in which the soils are predominantly hydric in nature. (Adapted from Cowardin, Carter, Golet and LaRoe (1979) Wetlands Subcommittee Federal Geographic Data Committee, August 2013; and http://resources.ca.gov/wetlands/introduction/defining_wetlands.html).

Other types of defined/delineated wetlands may be present within the GRP boundary and will be determined by the EU in the Planning Section during an incident.

Table 4-1: Resources-At-Risk Matrix – Species, Plants, Habitats, Protected Lands

Common Name	Scientific Name	Status^	CHWR (General Habitat Description) and USFWS (Critical Habitat Designated) *	Micro Habitat Description	Seasonal and Special Considerations, Notes~
Birds					
California Least Tern	<i>Sterna antillarum browni</i>	State: E/FP Fed: E	CWHR: Marine and estuarine shores. USFWS: N/A	Beaches and exposed tidal flats. On open, sandy, or gravelly shores near shallow-water feeding areas in estuaries.	Present in summer months. Breeds from late-April to September. Nests above the high tide line. Nesting colony present nearby on Venice beach.
Belding's Savannah Sparrow	<i>Passerculus sandwichensis beldingi</i>	State: EFed:	CWHR: Coastal saltmarsh. USFWS: N/A	Dense low vegetation. Frequents pickleweed in tidal situations or non-tidal alkaline flats nearby.	Permanent resident. Breeds from April to July. Nests in a hollow on ground usually concealed by overhanging vegetation.
Burrowing Owl	<i>Athene cunicularia</i>	State: SSC Fed:	CWHR: Heavily grazed or low grassland or desert vegetation with available burrows. USFWS: N/A	Microhabitats highly altered by humans including flood risk management and irrigation basins, dikes, banks, abandoned fields surrounded by agriculture, and road cuts and margins. Requires suitable soil for burrows.	Permanent resident. Breeds from March through August. Diurnal and nocturnal. Frequently perches or stands at burrow entrance in daytime.
Coastal California Gnatcatcher	<i>Polioptila californica</i>	State: SSC Fed: T	CWHR: Arid coastal scrub. USFWS: N/A	Low, dense coastal scrub habitat in arid washes, on mesas, and on slopes of coastal hills. Frequents California buckwheat, coastal sage, and patches of pricklypear.	Permanent resident. Breeds from late-February through August.

Least Bell's Vireo	<i>Vireo bellii pusillus</i>	State: E Fed: E	CWHR: Lowland riparian. USFWS: N/A	Low, dense riparian growth along water or along dry parts of intermittent streams. Associated with willow, cottonwood, baccharis, wild blackberry, or mesquite in desert localities.	Present in summer months. Breeds from late-March to September.
Light-footed Ridgway Rail	<i>Rallus longirostris levipes</i>	State: E/FP Fed: E	CWHR: N/A USFWS: N/A	Coastal marshes with active tidal flow and dense pickleweed and cordgrass thickets.	Permanent resident.
Least Bittern	<i>Ixobrychus exilis</i>	State: SSC Fed:	CWHR: Dense emergent wetlands. USFWS: N/A	Bulrush, cattail and salt cedar along immediate edge of fresh, brackish, and occasional salt water waterways.	Permanent resident. Solitary and cryptic bird.

Mammals

pallid bat	<i>Antrozous pallidus</i>	State: SSC Fed:	CWHR: Intermediate to large-tree stages of coniferous forests and deciduous-riparian habitats with high canopy closure. USFWS: N/A	Dens found in cavities in large trees, snags, logs, rock areas, or shelters provided by slash or brush piles.	Permanent resident. Young born February through May. Nocturnal.
south coast marsh vole	<i>Microtus californicus stephensi</i>	State: SSC Fed:	CWHR: N/A USFWS: N/A	Tidal marshes in Los Angeles, Orange and Ventura counties.	Permanent resident.
western mastiff bat	<i>Eumops perotis californicus</i>	State: SSC Fed:	CWHR: Open areas with abundant roost locations in crevices of rock outcrops and buildings. USFWS: N/A	Semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban.	Permanent resident. Nocturnal. Young born April through August. Largest native bat in the US.

Fish					
N/A					
Amphibians					
N/A					
Reptiles					
Southern California Legless Lizard	<i>Anniella stebbinsi</i>	State: SSC Fed:	CWHR: Sparsely vegetated areas of beach dunes. USFWS: N/A	Moist warm loose soil with plant cover. In leaf litter under trees and bushes in sunny areas and dunes. Under rocks, boards, driftwood, and logs.	Soil conditions including moisture and relatively cool microclimates limit distribution.
Invertebrates					
El Segundo blue butterfly	<i>Euphilotes battoides allyni</i>	State: Fed: E	CWHR: N/A USFWS: N/A	Native coastal dune vegetation and riparian thickets that intergrade with marsh vegetation. Intimately tied to coastal buckwheat.	Adult butterfly stage lasts from mid-June to early September. Adults consume coastal buckwheat. Cocoon remains buried in leaf litter for one year before emerging as an adult butterfly.
Plants**					
Nuttall's scrub oak	<i>Quercus dumosa</i>	State: Fed: Plant Rank: 1B.1	CWHR: N/A USFWS: N/A	Chaparral and coastal sage scrub.	Perennial evergreen shrub. Blooms February to April.
Orcutt's yellow pincushion	<i>Chaenactis glabriuscula var. orcuttiana</i>	State: Fed: Plant Rank: 1B.1	CWHR: N/A USFWS: N/A	Coastal bluff scrub and coastal dunes.	Annual herb. Blooms January to August.

southern tarplant	<i>Hemizonia parryi ssp. australis</i>	State: Fed: Plant Rank: 1B.1	CWHR: N/A USFWS: N/A	Valley grassland and freshwater wetlands.	Annual herb. Blooms May to November.
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^State and federal threatened and endangered species and California Species of Special Concern. Migratory birds w/o any other status were not included. T= Threatened, E = Endangered, C= Candidate, SSC= State Species of Concern, R = Rare, FP= Fully Protected, WL = Watch List, VU – Vulnerable

*Use CDFW's CWHR habitat classifications and note if there is USFWS critical habitat designated (or adjacent)
USFWS Critical Habitat Mapper - https://www.arcgis.com/home/item.html?id=2c2453ee613f47cdae9dbd0ed7939409
NOAA Fisheries West Coast Critical habitat Mapper - http://www.westcoast.fisheries.noaa.gov/maps_data/endangered_species_act_critical_habitat.html
**For plants: Primary Source = CDFW Native Plant Program; Secondary Source = Calflora and CNPS only
~Large concentrations, rookeries, spawning, breeding, etc. For plants include the blooming season (include months) and flower description (if applicable)

USFWS Designated Wetlands			
Wetland Type	Federal Wetland Description	Micro Habitat Description	Seasonal and Special Considerations, Notes
Marine (Deepwater)	Consists of open ocean overlying the continental shelf and its associated high-energy coastline. Extends from the outer edge of the continental shelf shoreward.	Marine habitats are exposed to waves and currents of the open ocean. Salinities exceed 30 parts per thousand with little or no dilution except outside the mouths of estuaries. Shallow coastal bays without freshwater inflow and coasts with exposed rocky islands that provide the mainland with little or no shelter from winds and waves.	Water Regimes are determined primarily by the ebb and flow of oceanic tides.

Estuarine (Marine Wetland)	Consists of deepwater tidal habitats and tidal wetlands which have obstructed or sporadic access to the open ocean and in which ocean water is occasionally diluted by freshwater runoff from land.	Consists of both estuaries and lagoons in low-energy systems. It is more strongly influenced by its association with land that is the Marine System. Salinities range from hyperhaline to oligohaline.	Water Regimes are affected by oceanic tides, precipitation, freshwater runoff from land areas, evaporation, and wind.
Palustrine: Emergent (Freshwater Emergent Wetland)	In areas with relatively stable climatic conditions, emergent wetlands maintain the same appearance year after year.	Characterized by emergent plants—i.e., erect, rooted, herbaceous hydrophytes, excluding mosses and lichens—are the tallest life form with at least 30% areal coverage.	Vegetation is present for most of the growing season in most years.
Palustrine: Forested (Freshwater Forested)	Includes all non-tidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas.	Vegetated wetlands called marsh, swamp, bog, fen, and prairie found throughout the U.S. Also includes small, shallow, permanent or intermittent water bodies often called ponds.	Water in this system may occur seasonally or permanently.
Palustrine: Scrub-Shrub Wetland (Freshwater Shrub Wetland)	May represent a successional stage leading to Forest Wetland or may be relatively stable communities. They occur only in Estuarine and Palustrine Systems and are often referred to as shrub swamp, shrub carr, bog, fen, and pocosin.	Woody plants less than 20 ft. tall are the dominant life form—i.e., the tallest life form with at least 30 percent areal coverage. The "shrub" life form includes true shrubs, young tree species that have not reached 20 ft. in height, and woody plants that are stunted due to adverse environmental conditions.	All Water Regimes are included except Subtidal.
Palustrine: Rock Bottom (Freshwater Pond)	Includes all non-tidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas.	Includes all wetlands and deepwater habitats with substrates having an areal cover of stones, boulders, or bedrock 75% or greater and vegetative cover of less than 30%.	Water in this system may occur seasonally or permanently.
Riverine	Includes all wetlands and deepwater habitats contained within a channel except wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens.	Water is usually but not always flowing in this system and can be described as a flood plain.	System terminates downstream into an ocean or lake and upstream where tributary streams originate or where the channel leaves a lake.

Source: Classification of Wetlands and Deepwater Habitats of the US, and <https://www.fws.gov/wetlands/data/mapper.html>

Commercial and Recreational Fisheries (Public Health, Fisheries Closure)			
Common Name	Scientific Name	Contact Information	Seasonal and Special Considerations, Notes
California halibut	<i>Paralichthys californicus</i>	CDFW Fishing Regulations	Annual fishing season. 5 fish bag limit. Minimum 22 inches in length.
California lizardfish	<i>Synodus lucioceps</i>	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations.
diamond turbot	<i>Hypsopsetta guttulata</i>	CDFW Fishing Regulations	Annual fishing season. No size limit. Bag limit 10 fish.
kelp bass	<i>Paralabrax clathratus</i>	CDFW Fishing Regulations	Annual fishing season. Must be 14 inches in length. Bag limit 5 fish.
specklefin midshipman	<i>Porichthys myriaster</i>	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations.
striped mullet	<i>Mugil cephalus</i>	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations.
Designated or Protected Lands			
Area Name	Designation***	Contact Information	Seasonal and Special Considerations, Notes
Ballona Wetlands	Ecological Reserve	Richard Brody - CDFW (310) 455-3243	Owned by the State of California. Managed by the California Department of Fish and Wildlife and California State Lands Commission.

***State and federal wildlife refuges, wildlife areas, ecological reserves, wild and scenic rivers, etc.

4.2 Wildlife Response Plan

Wildlife are put at risk or injured when oil is spilled into the marine, inland waters of the state, or terrestrial environment. Both Federal and State statutes mandate protection, rescue, and rehabilitation of oiled wildlife.

The WRP for Oil Spills in California, OSPR 2016, details the purposes, goals, objectives, responsibilities, and structure of the Wildlife Branch within the ICS. The WRP describes procedures to be used, along with personnel and equipment needed, to meet wildlife protection responsibilities of federal and state governments during a spill. The current WRP can be found at: <http://www.wildlife.ca.gov/OSPR/Preparedness/Wildlife-Response>.

The primary goal of the Wildlife Branch within the Operations Section is to provide for coordinated, immediate, and effective protection, rescue, rehabilitation, and minimization of risk of injury to wildlife resources and habitat during oil spills. The principal objectives during a spill response are to:

- Minimize injuries to wildlife and habitats from the contamination and/or the response actions.
- Provide best achievable rescue and care for injured wildlife.
- Document adverse effects to wildlife that result from the spill and cleanup.

These objectives are achieved through a suite of methods that include: communication with/through the Planning Section to response teams in the field; hazing of wildlife; aerial, ground, and on-water wildlife reconnaissance; recovery, stabilization, and transportation of injured wildlife; care and processing of oiled wildlife; and eventual release of rehabilitated wildlife.

Oiled Wildlife

Attempting to capture oiled wildlife can be hazardous to both the animal and the person attempting to capture the animal. Response personnel should NOT approach or attempt to recover oiled wildlife. Responders should report their observations to the Wildlife Branch of the Operations Section via the OWCN Hotline (877) 823-OWCN (6926) so appropriate action can be taken. Information provided should include the location, date, and time of the sighting, and the estimated number and kind of animals observed. This Hotline is active 24/7, including early on in a response, before a UC is established.

Wildlife Avoidance Measures

Avoidance measures may be recommended by the WBD (Operations Section) or EU (Planning Section) for the purpose of minimizing disturbance that could result in injury to wildlife during an oil spill response. By keeping a safe distance from identified sensitive areas, field responders can minimize the risk of direct wildlife and habitat injury, prevent the accidental hazing of wildlife into oiled areas, avoid causing abandonment of nests or dens, and other unintentional injuries. Avoidance measures may include exclusion zones or placing limits on:

ingress/egress routes, unnecessary disturbance of sensitive areas, low altitude flights, night operations, and other activities.

4.3 Oiled Wildlife Care Network

The OWCN is a cooperative system of specialized wildlife rehabilitation centers and organizations. The OWCN is administered by the Wildlife Health Center at UC Davis. The Wildlife Health Center has an MOU with OSPR for operation of the OWCN to establish and equip wildlife rescue and rehabilitation stations and provide services to rescue and rehabilitate oiled wildlife. During an oil spill, OSPR activates and directs activities of the OWCN within the Wildlife Branch. The OWCN maintains a corps of veterinarians, paid staff, and professionally trained volunteers. The OWCN enlists more than 40 rehabilitation, academic, and private non-profit organizations to actively participate during oil spill responses. This includes more than 10 permanent wildlife care facilities for use during a spill, the majority occurring along the California coast. If a particular wildlife care facility becomes overwhelmed, additional facilities and/or temporary tents can be utilized. For more information on the OWCN, see www.owcn.org.

4.4 Economic Resources-At-Risk

Economic resources listed in this chapter are facilities, businesses, infrastructure or locations that could be severely impacted if an oil spill were to occur. Economically sensitive resources are separated into six categories: water intakes, infrastructure, recreational, waterfront businesses, commercial fisheries, and any additional economic resources not already captured. Table 4-2 below lists the known economic resources that exist within the boundaries of the Ballona Creek GRP as well as contact information for each resource.

Table 4-2: Resources-At-Risk Matrix – Economic Resources

Name	Agency/ Company	Contact Info.	Phone
Drinking, Industrial, and Agricultural Intakes			
N/A			
Dams, Hydroelectric Facilities, Tidal Gates			
Ballona Wetlands Tidal Gate	Los Angeles County		(562) 861-0316 (626) 458-4357
Playa Del Rey Lagoon Tidal Gate	City of Los Angeles, Dept. of Recreation and Parks	6660 Esplanade Place, Playa Del Rey, CA 90293	(818) 441-2874 (213) 216-4325
Recreational- Parks, Beaches, Marinas, Boat Ramps, Fishing Guide Service, Sporting Goods Stores			
UCLA Marina Aquatic Center	UCLA	14001 Fiji Way, Marina Del Rey, CA 90292	(310) 823-0048
Marina Del Rey Harbor, including North and South Jetty's	Los Angeles County Dept. of Beaches and Harbors	Los Angeles County Dept. of Beaches and Harbors	(424) 526-7777
Playa Del Rey Lagoon	City of Los Angeles, Dept. of Recreation and Parks	6660 Esplanade Place, Playa Del Rey, CA 90293	(818) 441-2874 (213) 216-4325
Playa Del Rey Beach	Los Angeles County Dept. of Beaches and Harbors	7313-7351 S Marine Ave, Playa Del Rey, CA 90293	(424) 526-7777
Toes Beach	Los Angeles County Dept. of Beaches and Harbors	6935 S Trolley Pl, Playa Del Rey, CA 90293	(424) 526-7777
Dockweiler State Beach	State Parks, operated by Los Angeles County Dept. of Beaches and Harbors	12001 Vista Del Mar, Playa Del Rey, CA 90293	(310) 322-4951 (424) 526-7777
River Dependent Waterfront/Neighboring Businesses (those that may be immediately or directly impacted)			
Marina Del Rey Harbor Businesses	Marina Del Rey	4701 Admiralty Way, Marina Del Rey, CA 90292	(424) 526-7900
Commercial Fisheries			
N/A			
Additional Economic Resources			
N/A			

4.5 Tribal and Cultural Resources and Historic Properties at Risk

Cultural and historic sensitive sites are present within this GRP area. Due to the nature of this information, details regarding the location and type of cultural resources present are not included in this document. However, in order to ensure that tactical response strategies do not inadvertently harm cultural and historic sensitive sites, the South Central Coastal Information Center (Los Angeles, Orange, San Bernardino and Ventura Counties) under the California Historical Resources Information System (CHRIS), who can access this sensitive information, should be consulted before disturbing any soil or sediment during a response action. The USCG or USEPA may hire an Historic Properties Specialist to help identify the location of these sensitive resources and/or assign resources to monitor cleanup operations or provide a list of professional archeologists that can be contracted to monitor response activities. Table 4-3 lists contact information for the appropriate CHRIS Information Center for the GRP area.

Tribal Notification

Oil spills which occur on or near federally recognized tribal land may have the potential to impact cultural resources on traditional ancestral lands. These ancestral lands may be of importance to several federally recognized and non-federally recognized tribes. The CA Public Resource Code (PRC) Section 21073 states “California Native American tribe means a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission (NAHC) for the purposes of Chapter 905 of the Statutes of 2004.” When it is determined that an oil spill has the potential to impact cultural resources, the tribal representatives listed in Table 4-3, provided by NAHC, will be contacted and invited to participate in the response for the purpose of cultural resource protection. A notification call will also be placed to the NAHC.

Section 106 of the National Historic Preservation Act of 1966 requires tribal consultation in all steps of the process when a federal agency project or effort may affect historic properties that are either located on tribal lands, or when any Native American tribe or Native Hawaiian organization attaches religious or cultural significance to the historic property, regardless of the property’s location. When an oil spill response occurs on tribal land, the federal agency must notify appropriate Native American tribes of the undertaking and give those tribal groups the opportunity to consult, should they wish to do so.

In the event of an oil spill that may impact tribal resources, the federal agency is responsible for notifying appropriate Native American tribes. In the absence of an FOOSC, the SOSOC will ensure appropriate notification of and coordination with tribes.

After the UC is established, an Historic Properties Specialist will coordinate with the EU on cultural and historic resources-at-risk concerns. Procedures for managing the discovery of human skeletal remains and cultural and historic resources can be found in [Section 9 of the GRP CM](#).

Table 4-3: Resources-At-Risk Matrix – Tribal, Cultural and Historic Properties

Agency/ Company	Contact Info.	Phone
Historical and Cultural Resources		
South Central Coastal Information Center: Los Angeles, Orange, San Bernardino, Ventura Counties		
Stacy St. James	sccic@fullerton.edu	(657) 278-5395
Website	http://anthro.fullerton.edu/sccic/	
Tribal Resources (State Agency)		
Native American Heritage Commission	1550 Harbor Blvd., Suite 100, West Sacramento, CA	(916) 373-3710
Katy Sanchez	Katy.Sanchez@pacbell.net	(916) 373-3710
Steven Quinn	Steven.Quinn@nahc.ca.gov	(916) 373-3710
CDFW Tribal Liaison		
Nathan Voegeli	nathan.voegeli@wildlife.ca.gov	(916) 651-7653
Local Tribal Contact Information		
Joseph Ontiveros, Cultural Resource Department - Soboba Band of Luiseno Indians	P.O. BOX 487 San Jacinto, CA, 92581	(951) 663-5279
Scott Cozart, Chairperson - Soboba Band of Luiseno Indians	P. O. Box 487 San Jacinto, CA, 92583	(951) 654-2765
Andrew Salas, Chairperson - Gabrieleno Ban of Mission Indians - Kizh Nation	P.O. Box 393, Covina, CA, 91723	(626) 926-4131
Anthony Morales, Chairperson - Gabrieleno/Tongva San Gabriel Band of Mission Indians	P.O. Box 693, San Gabriel, CA, 91778	(626) 483-3564
Sandonne Goad, Chairperson - Gabrielino/Tongva Nation	106 1/2 Judge John Aiso St., Suite 231, Los Angeles, CA, 90012	(951) 807-0479
Robert Dorame, Chairperson - Gabrielino Tongva Indians of California Tribal Council	P.O. Box 490, Bellflower, CA, 90707	(562) 761-6417
Charles Alvarez - Gabrielino-Tongva Tribe	23454 Vanowen St., West Hills, CA, 91307	(310) 403-6048

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Appendix A

Ballona Creek Geographic Response Plan – Original Contributors

The Ballona Creek GRP was developed through a collaborative effort among the state, federal, and local government agencies listed below, as well as industry and oil spill response organization partners and tribal and environmental NGO representatives.

Federal Representatives

U.S. Environmental Protection Agency, Region 9 and 10
U.S.D.A. Forest Service
U.S. Department of the Interior

State Representatives

Calif. Environmental Protection Agency
Calif. Office of Emergency Services
CALFIRE State Fire Marshal's Office, Pipeline Safety Division
Native American Heritage Commission

Local Representatives

Santa Barbara County Public Health
Los Angeles County Fire Department
Los Angeles County Fire Department Health and Hazardous Materials
City of Culver City Fire Department
City of Los Angeles Fire Department

Tribal Representatives

Gabrielino Band of Mission Indians – Kizh Nation
Bear River Band of Rohnerville Rancheria
San Manuel Band of Mission Indians

Industry and Response Contractors

Patriot Environmental Services
Marine Spill Response Corporation
Union Pacific Railroad
Burlington Northern Santa Fe Railroad
Kinder Morgan Pipeline
Crimson Pipeline
Shell Pipeline Company
Shell Oil Company
Chevron Products
Sentinel Peak Resources
Tesoro Refining

Environmental Non-Governmental Organizations

Trout Unlimited

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Appendix B

Site Description

Reference: California Department of Fish and Wildlife, South Coast Region (Region 5) and U.S. Army Corp of Engineers, Los Angeles District, Draft Ballona Wetlands Restoration Project Environmental Impact Report (EIR), September 2017.

1.0 Overview

This section provides a description of the physical features, hydrology, climate, and winds in the area of Ballona Creek, and includes an overview of the oil spill risks in the region. Ballona Creek is approximately 8.8 miles, all channelized. It flows through Los Angeles County eventually entering the Santa Monica Bay. The Ballona Creek GRP encompasses the entire Ballona Creek, the Sepulveda Channel and Centinela Channels, and wetlands of the Ballona Reserve.

1.1 Physical Features

Ballona Creek originated in the historic Rancho Las Cienegas and prior to 1825, the Los Angeles River intermittently drained and delivered sediment to the Ballona estuary, frequently switching its course between it and Long Beach. After the Los Angeles River was channelized with its mouth at Long Beach, there were reduced storm flows and sediment delivery to Ballona Creek. However, freshwater springs sustained much of the existing marsh. The lagoon changed though and became constricted and seasonally closed due to longshore sediment transport, a smaller tidal prism, and the smaller storm flows.

Ballona creek and the wetlands of the Ballona Reserve have been significantly and forever altered starting with construction of now-defunct railroad line in the late 1800s. The first jetties were constructed in 1938 (EIR, page F1-4). Then the Ballona Creek flood control channel and levees were constructed in 1939, disconnecting the remaining wetlands from tidal and fluvial inundation and sedimentation. Additionally, the Marina del Rey harbor and jetties were created by dredging wetlands to the north of the channel during the 1960s. Between 10 and 15 ft. of dredge spoils were placed into the wetlands. Offshore of the mouth, a shore-parallel breakwater was constructed, which reduced wave penetration into the marina.

Today, Ballona Creek is a trapezoidal concrete-sided channel (EIR, page 1-5). It is confined by flood protection levees on both sides. Downstream of the confluence with Centinela Creek (channelized in 1962), the channel has a sediment bottom (i.e., "soft-bottom"). (EIR 3.9-4) It is 250 feet wide, with a corridor width of 320 feet (including levee slopes) (EIR, page F7-21). The Ballona Reserve includes degraded wetlands and a freshwater marsh, which was a compensatory mitigation project for neighboring residential development (EIR, page 1-6).

Hydrology

The Ballona Creek watershed is located in Los Angeles County with headwaters in the Santa Monica Mountains to the north and in the Baldwin Hills to the south. The watershed is 20% undeveloped in the foothills and canyons and 80% highly urbanized coastal plain, including densely developed communities.

The existing flood control channel and urbanized watershed have significantly modified the hydrology and sediment processes of the Ballona Wetlands (EIR, page F7-76) The U.S. Army Corp. of Engineers constructed the Ballona Creek channel in 1937 for flood risk management, and it retains oversight and jurisdiction over the channel. (EIR, page 1-5) Now, the urbanized portions of the watershed drain to Ballona Creek and its tributaries via streets and storm drains (EIR, page 3.9-4) During a storm event Ballona Creek conveys flood water and sediment from the watershed to Santa Monica Bay. (EIR, F1-5) The conveyance capacity of Ballona Creek is up to 68,000 cubic feet per second (cfs).

Climate and Winds

Data from the Western Regional Climate Center's Los Angeles Weather Station is used to characterize climate conditions in the Ballona Reserve. Between 1944- 2013, average annual temperatures in this area ranged from a low of 55.3 degrees Fahrenheit (F) to a high of 70.1°F. Summer (August) high and low temperatures were 76.3°F and 63.8°F, respectively. The average winter (January) high and low temperatures were 65.2°F and 47.2°F, respectively, while temperatures rarely drop below 32°F. Rainfall varies widely from year to year, with an annual average of 12.02 inches. Wind patterns in the area arise primarily from the west-southwest, with seasonal and diurnal variations resulting in easterly Santa Ana winds and southerly winds in the winter. Over the period of record (1996-2006), winds at the Los Angeles Airport station averaged a speed of 7.8 miles per hour (EIR, page 3.3-2).

Tides and Currents

Historically, Ballona Creek was closed off to tides, but after jetty construction and maintenance dredging the creek remains open year-round. While regular dredging keeps the entrances open, the dredging does not prevent or remove all wave-driven transport and a shoal exists in the creek channel. Ballona Creek is connected to the Ballona Reserve via two self-regulated tide (SRT) gates, which limit the high tide levels in the wetlands.

1.2 Risk Assessment

The Ballona Creek and wetlands are some of the remnant hydrological resources found in Los Angeles County with a plethora of natural, cultural, and historical resources, all at risk of injury from oil spills. Potential risks to these resources include recreational vessels, pipelines, vehicles and roads, and other factors.

Large Commercial Vessel Traffic

There is significant commercial movement along the California coast, including at the most trafficked port on the West Coast, the Ports of Los Angeles-Long Beach, located just south of the channel. The potential for vessel collisions or groundings presents a significant spill risk. Large commercial vessels typically carry significant amounts of heavy and blended fuel oils and other petroleum products, increasing the risk for sensitive resources to be impacted if an oil spill incident were to occur. The Chevron Refinery in El Segundo has their marine terminal approximately 4 miles south of the mouth of Ballona Creek. Chevron offloads petroleum products at this marine terminal.

Road Systems

Roadways that run adjacent to the wetlands, cross over the channels, and/or have storm drains that feed into the Ballona channel pose an oil spill risk. Several main highways and streets run parallel to and cross over the creek and wetland, including Highway 1, I-405, and I-10. Commercial trucks can contain hundreds to thousands of gallons of fuel and oil. A vehicle spill onto one of these bridges or roadways can cause fuel or oil to flow into the channel and eventually into the wetland reserve and the bay.

Oil Pipelines and Oil Fields

Numerous oil facilities and pipelines operate adjacent to the Ballona Creek. The western half of the Ballona Reserve is on the eastern part of the SoCalGas Company's Playa del Rey Storage Field, originally an oil field that produced for about 10 years during the 1930s. In 1942, a depleted portion of the oil field was turned into an underground natural gas storage facility. Southwest of the Ballona Creek is the Inglewood Oil Field. Furthermore, several facilities and pipelines receive, store and distribute crude oil and products such as gasoline and diesel. Along with the pipelines, the facilities are accessible by truck. A spill from a pipeline, or one of the other associated modes of transporting petroleum products, has the potential to significantly impact sensitive resources in the area.

Recreational Boating

Accidents involving recreational watercraft in the Santa Monica Bay or Marina del Rey harbor have the potential to result in spills of anywhere from a few gallons of gasoline, up to hundreds of gallons of diesel fuel. Examples of such accidents include collisions, vessel groundings, and mechanical failures. These types of accidents, as well as problems with bilge discharges and refueling operations, the most typical types of spills to occur, have a negative impact on the remaining ecological resources found here.

Other Spill Risks

Other potential oil spill risks in the area include road run-off during rain events, on-shore or near shore construction activities where heavy equipment is being operated, and the migration of spilled oil through soil on lands adjacent to the river or along creek or storm drains.

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Appendix C

Comments, Corrections, or Suggestions

GRPs are living documents and can be revised at any time based on new information from comments and lessons learned from drills and spills. These changes are typically reflected as interim updates on the website for each GRP until they are fully incorporated into the plan during a future update. OSPR values stakeholder input and welcomes suggestions about how the plan might be improved. If you have any questions or comments, suggestions for improvement, or find errors in this document please submit comments to the following address:

California Department of Fish and Wildlife
Office of Spill Prevention and Response
1010 Riverside Parkway
West Sacramento, Ca 95605
Attn: Geographic Response Plans

The form below can be used to submit comments by mail. Contact information is requested so that we can give you a call if more information or comment clarification is needed. Additional information on Geographic Response Plans is available at <http://www.wildlife.ca.gov/OSPR/Contingency>.

GRP Comment Form

Today's Date: _____

Your Name: _____ Title: _____

Company/Agency: _____

Address: _____

City: _____ State/Province: _____ Zip: _____

Email: _____ Ph: _____

GRP Page Number: _____ Section or Paragraph: _____

Comment(s) _____

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Appendix D

Record of Changes

Date	Change Number	Summary of Changes	Name of Person Making Changes
09/04/2020	1	First annual contacts update: Contact Sheet, Chpt. 2 tables, Chpt. 3 strategy sheets, Chpt. 4 Econ and Tribal matrices	A. Burkholder

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Appendix E

Other Relevant Emergency Response Plans

Los Angeles County Operational Area Emergency Response Plan (ERP)

The Los Angeles County Operational Area Emergency Response Plan (ERP) addresses the Los Angeles County Operational Area's planned response to extraordinary emergency situations associated with natural and man-made disasters and technological incidents. The operational concepts reflected in this plan focus on potential large-scale disasters which can generate unique situations requiring an unusual or extraordinary emergency response. The ERP is a preparedness document—designed to be read, understood, and exercised prior to an emergency and has been developed in compliance with the Standardized Emergency Management System (SEMS).

The ERP establishes the County's emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts among the various emergency departments, agencies, special districts and jurisdictions that comprise the Los Angeles County Operational Area.

The purpose of the ERP is to incorporate and coordinate all the facilities and personnel of County government, along with the jurisdictional resources of the cities and special districts within the County, into an efficient Operational Area organization capable of responding to any emergency using SEMS, mutual aid and other appropriate response procedures. The ERP is an extension of the California Emergency Plan. It will be reviewed and exercised periodically and revised as necessary to meet changing conditions.

LA/LB Area Contingency Plan (ACP), LA/LB Southern Sector, Area Committee ACP-5

The statutes (OPA 90 and SB 2040) enacted in consequence of the catastrophic oil spills of 1989, required contingency planning by both State and Federal Governments. The USCG and CDFW/OSPR agreed to joint preparation of contingency plans through co-chairing the three Port Area Committees for Contingency Planning: USCG Port Areas for San Francisco, Los Angeles / Long Beach, and San Diego.

Each Area Committee, under the direction of the FOSC for the area, is responsible for developing an Area Contingency Plan (ACP) which, when implemented in conjunction with the National Contingency Plan (NCP), shall be adequate to remove a worst case discharge of oil or a hazardous substance, and to mitigate or prevent a substantial threat of such a discharge, from a vessel, offshore facility, or onshore facility operating in or near the geographic area. Each Area Committee is also responsible for working with State and local officials to pre-plan for joint response efforts, including appropriate procedures for mechanical recovery, dispersal, shoreline cleanup, protection of sensitive environmental areas, and protection, rescue, and rehabilitation of fisheries and wildlife. The Area Committee is also required to work with State and local officials to expedite decisions for the use of dispersants and other mitigating substances and devices.

The Los Angeles/Orange Area extends from the Southern Orange County border to the Northern Los Angeles County border. The inland boundary is determined by the USCG/USEPA boundary. This line generally follows Hwy 1 along the coast.

City of Culver City Emergency Operations Plan

This Emergency Operations Plan (EOP) addresses Culver City's planned response to extraordinary emergencies associated with multiple hazards. The plan does not address normal day-to-day emergencies or the well-established and routine procedures used in coping with such emergencies. Instead, the operational concepts reflected in this plan focus on potential large-scale disasters, which can generate unique situations requiring unusual emergency responses.

The EOP is a preparedness document, which is designed to be read, understood, and exercised prior to an emergency. The EOP includes Culver City as part of the Los Angeles County Operational Area, California SEMS and the NIMS.

City of Los Angeles - Emergency Management Department - Local Hazard Mitigation Plan

The City of Los Angeles Local Hazard Mitigation Plan was developed to protect the people, property, economy, and environment from risks resulting from natural and man-made disasters. The plan is compliant with state and federal hazard mitigation planning requirements under the Federal Emergency Management Agency (FEMA). The plan identifies resources, information and strategies for limiting hazard risk, and serves as a guide for mitigation activities throughout the planning area.

The plan was developed to satisfy the following objectives: Meet or exceed program requirements described in the Disaster Mitigation Act, allow the City of Los Angeles to continue using federal grant funding to reduce risk hazard through mitigation, meet the needs of the City of Los Angeles as well as state and federal requirements, create a risk assessment that focuses on City of Los Angeles hazards of concern, and to meet FEMA planning requirements.

The planning process included a Steering Committee consisting of neighboring communities, local and regional agencies involved in hazard mitigation, agencies with authority to regulate development, businesses, academia, and other private and nonprofit interests. A core planning team consisting of City of Los Angeles Emergency Management Department staff and a contract consultant facilitated the update of this plan. The planning team and Steering Committee reviewed the subject plan, the California statewide hazard mitigation plan, and existing programs that support hazard risk mitigation.

California State Oil Spill Contingency Plan

The California State Oil Spill Contingency Plan is an independent document generally describing the state's response to discharges of oil to all marine or inland surface waterways of California. This version of the Plan supersedes all previous California State oil spill plans (whether statewide or marine specific). Where an incident may involve oil and a chemical release, an assessment will need

to be made whether to prepare for and respond to the incident primarily as an oil spill or primarily as a chemical release.

Oil spill incidents often involve a response from multiple agencies having different jurisdictional authorities, capabilities, and functions. In some circumstances, the jurisdictional mandates of several agencies may overlap. Use of the SEMS and the NIMS to organize spill response ensures that inter-agency responsibilities are collectively addressed.

Incident management generally includes the development of objectives, strategies and tactics, the ordering and release of resources, and coordination with other appropriate response agencies to ensure that all resources are properly utilized and that this coordinating function is performed in a manner designated to minimize risk to other persons and to the environment.

Federal Region 9 Regional Contingency Plan

The Federal Region 9 Regional Contingency Plan (RCP) is intended for use by Local, Tribal, State, and Federal emergency response personnel as a tool for obtaining resources to respond to an oil or hazardous materials incident. It outlines the response mechanisms that would be activated among the various levels of the response community in the event of an emergency situation. It is not intended to displace Local emergency response plans, but rather it is intended to coordinate with Local plans and build on the mechanisms set forth in State emergency response plans.

The objective of the RCP is to describe response protocols and assist in providing a coordinated response capability in the event of a release or threat of release endangering human health and welfare or the environment. The RCP expands upon the planning and response requirements set forth in the NCP, augments coordination with State and Tribal authorities, and integrates existing Tribal, State and Federal plans for Federal Region 9. The RCP incorporates both coastal and inland areas.

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Appendix F

Local/Regional Asset Resources

- **Table F-1: Local/Regional Asset Resources Table**
- **Figure F-1: Cal OES SoCal Certified HazMat Material Teams Map**
- **Table F-2: Cal OES Statewide List of Certified California HazMat Teams by Type**
- **ICP Facility Assessment Check Sheet**

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Table F-1: Local/Regional Response Assets

Resource	Home Base/Owner	Contact Information and Comments
Water Supplies for Firefighting		
Fire Hydrant	City of Los Angeles	(213) 847-5340
Fire Hydrant	City of Culver City	(310) 839-1146
Foaming Operations		
A-FFF 30,000 gallons	Southern California Industrial Mutual Aid Organization	(562) 394-7015
LAFD Foam Apparatus	Los Angeles Fire Dept., West Bureau	(323) 957-4121
Air Monitoring Equipment		
HazMat/Chemical Monitoring	Los Angeles County Fire Department Health and Hazardous Materials	(323) 890-4045
HazMat/Chemical Monitoring	Environmental Protection Agency - Region 9 Long Beach	(800) 300-2193
Communication Equipment: Portable Radio/Mobile Repeaters		
Area serviced by extensive fixed system.		
HazMat Teams		
Type 1	City of Santa Monica Fire Dept.	(310) 458-8671
See Figure G-1 below, Cal OES SoCal Certified Hazardous Material Teams Map, for Additional Type 1-3 HazMat Teams and Table G-2 for a list of statewide Certified California HazMat Teams by Type.		
Swift Water Rescue Teams		
Los Angeles Fire Dept. Urban Search and Rescue	Los Angeles Fire Dept., West Bureau	(323) 957-4121

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Figure F-1: Cal OES SoCal Certified HazMat Material Teams Map

State of California
 CALIFORNIA OFFICE OF EMERGENCY SERVICES
Certified Hazardous Material Teams



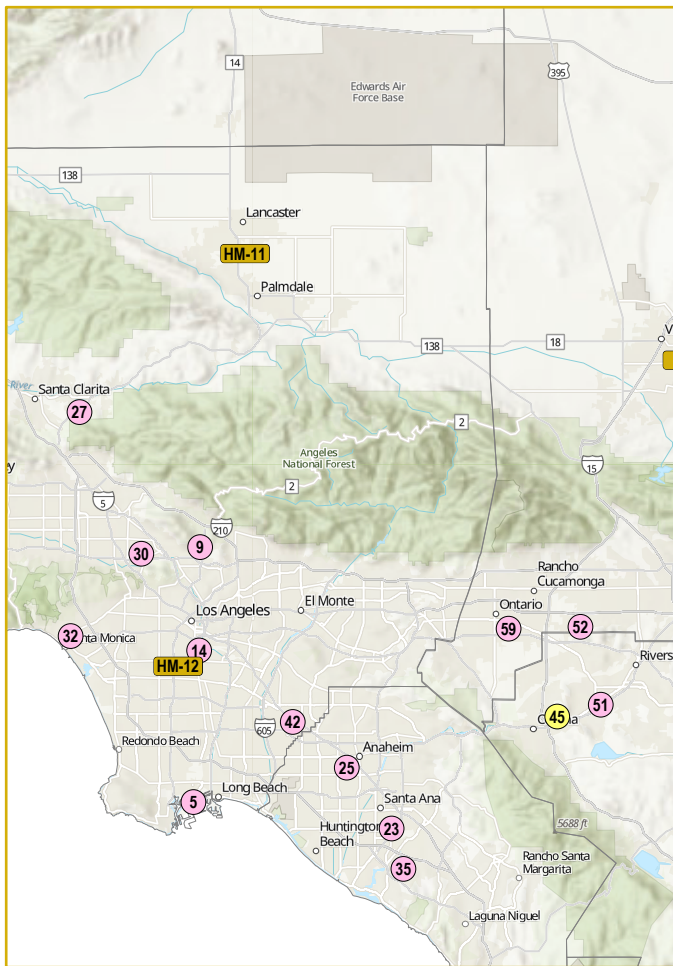
By Type as of April, 2018



Certified Haz-Mat Teams

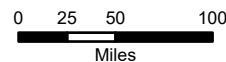
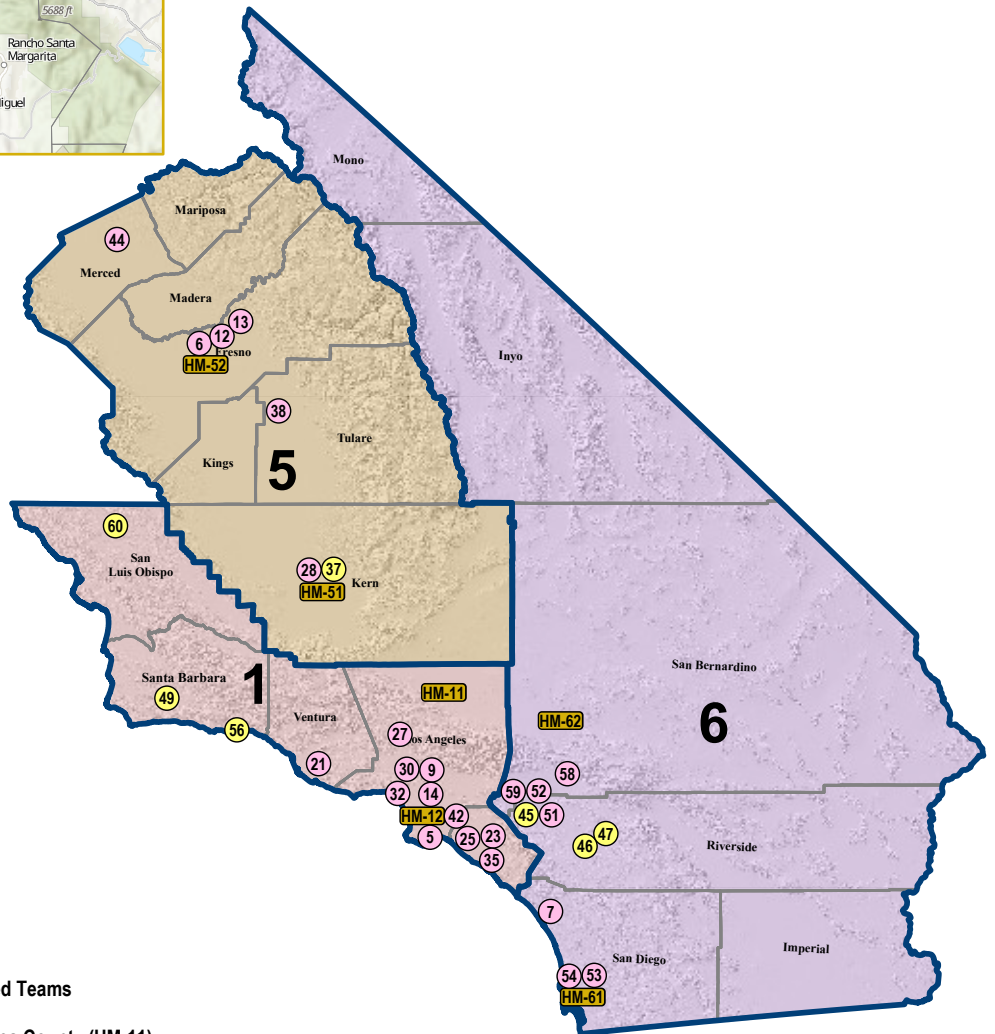
Unit Type

- Type 1
- Type 2
- Type 3
- Type 2 - Cal OES Sponsored
- Mutual Aid Regions
- County Boundaries



- ID - Agency (Unit)**
- 5 - Long Beach City Fire (HM-24)
 - 6 - Fresno City Fire (HM-16)
 - 7 - USMC Camp Pendleton (HM-1)
 - 9 - Glendale Fire (HM-24)
 - 12 - Fresno City Fire (HM-1)
 - 13 - Clovis Fire (HM-40)
 - 14 - Vernon Fire (HM-151)
 - 21 - Ventura County Fire (HM-50)
 - 23 - Orange County Fire-Santa Ana (HM-79)
 - 25 - Anaheim Fire (HM-6)
 - 27 - Los Angeles County Fire #76 (HM-150)
 - 28 - Bakersfield Fire (HM-15)
 - 30 - Burbank Fire (HM-12)
 - 32 - Santa Monica Fire (HM-4)
 - 35 - Orange County Fire-Irvine (HM-4)
 - 37 - Kern County Fire (HM-66)
 - 38 - Visalia City Fire (HM-55)
 - 42 - Santa Fe Springs Fire (HM-851)
 - 44 - Merced County Fire (HM-62)
 - 45 - Corona City Fire (HM-4)
 - 46 - Riverside County Fire (HM-34)
 - 47 - Hemet City Fire (HM-1)
 - 49 - Santa Barbara County Fire (HM-31)
 - 51 - Riverside City Fire (HM-2)
 - 52 - San Bernardino County Fire (HM-74)
 - 53 - San Diego City Fire (HM-1)
 - 54 - San Diego City Fire (HM-2)
 - 56 - Santa Barbara City Fire (HM-1)
 - 58 - San Manuel Fire (HM-241)
 - 59 - Ontario City Fire (HM-133)
 - 60 - San Luis Obispo County Fire (HM-1)

- Cal OES Sponsored Teams**
- ID - Agency (Unit)**
- HM-11 - Los Angeles County (HM-11)
 - HM-12 - Los Angeles City (HM-12)
 - HM-51 - Kern County Fire (HM-51)
 - HM-52 - Fresno City Fire (HM-52)
 - HM-61 - San Diego County Fire (HM-61)
 - HM-62 - San Bernardino County Fire (HM-62)



May 3, 2018
 Produced by: Cal OES GIS
 Source: Cal OES Hazardous Materials Div
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 \Projects\Fire Rescue Hazmat1 Project
 \Hazmat Material Teams.aprx

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Table F-2: Cal OES Statewide List of Certified California HazMat Teams by Type

CERTIFIED CALIFORNIA HAZMAT TEAMS, BY TYPE (Items highlighted is new data since last update) – 4/30/18									
	Orig. Req. #	Orig. Insp. #	Recent Pass #	AGENCY	Operational and Local Identifier	Region	Unit Designation	Most Recent Attained	Zip Code
TYPE 1	46	41	28	Anaheim Fire	XOR-ANA	1	HM-8	1/13/2017	92807
	14	13	32	Burbank City Fire	XLC-BRK	1	HM-12	6/08/2017	91505
	10	10	9	Glendale City Fire	XLC-GLN	1	HM-24	7/06/2017	91208
	7	7	5up	Long Beach Fire Dept.	XLF-LOB	1	HM-24	10/06/2016	90802
	18	17	30	Los Angeles County Fire	XLB-LAC	1	HM-150	12/15/2010	91351
	51	46	37	Orange Co Fire Authority	XOR-ORC	1	HM-4	8/15/2017	92612
	49	44	26	Orange Co Fire Auth. (formerly Santa Ana hm-9)	XOR-ORC	1	HM-79	8/15/2017	92705
	45	40	23	Ventura County Fire	XVE-VNC	1	HM-50	6/07/2017	93010
	26	25	15	Vernon City Fire	XLE-VER	1	HM-151	7/15/2017	90058
	55	58	47	Santa Fe Springs Fire	XLE-SFS	1	HM # 851	4/20/2018	90670
	54	48	48	Santa Monica Fire	XLA-SMA	1	HM-4	10/27/2016	90404
	6	6	11	Alameda County Fire	XAL-ACF	2	HM-12	5/23/2017	94546
	5	5	7up	Contra Costa County JPA	XCC-CCH	2	HM-1	10/20/2016	94553
	33	31	17up	Marin County Fire Haz-Mat JPA	XMR-MRN	2	HM-1	8/02/2016	94960
	43	62	52	Oakland City Fire	XAL-OKL	2	HM # 2599	8/23/2013	94607
	61	60	50up	Salinas City Fire – Monterey County JPA	XMY-SLS	2	HM-2	6/14/2017	93901
	22	50	31	San Jose City Fire	XSC-SJS	2	HM-29	4/05/2017	95134
	24	23	19	Santa Clara County Fire	XSC-CNT	2	HM-72	3/14/2017	95014
	50	45	38up	Solano County O.E.S. (Fairfield City FD)	XSO-FRF	2	HM-1	7/18/2017	94533
	1	1	1	Roseville City Fire	XPL-RSV	4	HM-1	5/17/2016	95678
	2	2	2	Sacramento City Fire	XSA-SCR	4	HMRT-7	12/01/2016	95823
	3	3	3	Sacramento City Fire	XSA-SCR	4	HMRT-30	12/01/2016	95835
	4	4	4	Sacramento Metro F.P.D.	XSA-SAC	4	HM-109	11/17/2017	95608
	42	37	25up	Bakersfield Fire. Dept	XKE-BKF	5	HM-15	3/16/2017	93314
	27	26	13	Clovis City Fire	XFR-CLV	5	HM-40	12/21/2016	93611
	17	16	12	Fresno City Fire	XFR-FRN	5	HM-1	4/26/2018	93703
	16	15	6	Fresno City Fire	XFR-FRN	5	HM-16	4/26/2018	93722
	11	11	14up	Merced County F.D.	XMD-MRD	5	HM-62	3/13/2013	95301
	32	30	41	Visalia Fire	XTU-VSA	5	HM-55	7/16/2017	93291
	67	73	62	Ontario City Fire	XBO-OTO	6	HM-133	8/7/2015	91761
	57	55	44u	Riverside City Fire	XRI-RIV	6	HM-2	4/7/2014	92503
	68	66	55	San Bernardino County Fire	XBO-BDC	6	HM-74	4/7/2014	92335
	9	69	56	San Diego City Fire	XSD-SND	6	HM-1	5/30/2014	92126
	48	70	57	San Diego City Fire	XSD-SND	6	HM-2	5/30/2014	92126
	71	72	61up	San Manuel Fire Dept.	XBO-SMI	6	HM-241	4/25/2017	92346
	15	14	7	U.S. Marine Corp Camp Pendleton	XSD-MCP	6	HM-1	8/25/2017	92055
TYPE 1 TOTAL:						36			
TYPE 2	59	67	59	Santa Barbara City	XSB-STB	1	HM-1	11/03/2014	93101
	66	65	53	Santa Barbara County	XSB-SBC	1	HM-31	10/07/2013	93427
	72	74	63	San Luis Obispo County / CAL Fire	XSL-SLU	1	HM-1	1/05/2016	93446
	63	71	58	Belmont City Fire	XSM-BEL	2	HM-14	7/03/2014	94002
	41	35	33	Fremont City Fire	XAL-FRE	2	HM-57	4/04/2018	94538
	31	29	22	Humboldt Bay Fire Dept	XHU-EUR	2	HM-8190	2/26/2018	95501
	53	51	48	Livermore-Pleasanton	XAL-LAP	2	HM-92	1/18/2018	94588
	20	49	36up	Mt. View Fire	XSC-MTV	2	HM-5	3/08/2017	94043
	35	32	29	Napa County Fire	XNA-NPA	2	HM-27	10/24/2010	94558
	73	75	64	Presidio of Monterey	XMY-POM	2	H2MT61	9/20/2017	93955
	44	39	35	San City Francisco Fire	XSF-SFR	2	HM-1	4/05/2011	94102
	28	27	16	San Ramon Fire Prot. Dist	XCC-SRM	2	HM-35	2/01/2017	94506
	23	52	45	Santa Clara City Fire	XSC-SNC	2	HM-9	6/19/2012	95051
	58	56	46up	Santa Rosa City Fire	XSN-SRS	2	HM-1	2/16/2018	95404
	8	8	18	Sonoma County Fire	XSN-SSR	2	HM-2936	3/07/2017	95403
	25	24	24	Sunnyvale Dept. Public Safety	XSC-SNY	2	HM-2	11/30/2016	94085
	36	33	20	Butte County Fire	XBU-BUT	3	HM-5	2/02/2017	95928
	12	54	42	Shasta-Cascade HM JPA (Redding Fire)	XSH-SHS	3	HM-24	2/17/2012	96002
	69	68	60	Placer Co. Fire (CDF)	XPL-PCF	4	HM-10	2/01/2015	95603
	13	12	10up	Truckee Fire Prot. District	XTB-TRK	4	HM-1	4/11/2018	96161
	47	42	40	Kern County Fire	XKE-KRN	5	HM-66	3/16/2017	93308
	60	59	49up	Corona City Fire	XRI-COR	6	HM-4	4/05/2013	92879
	56	57	43up	Hemet City Fire	XRI-HMT	6	HM-1	6/05/2013	92545
	64	63	51	Riverside County Fire	XRI-RRU	6	HM-34	5/14/2013	92596
65	64	54	Riverside County Fire	XRI-RRU	6	HM-81	10/15/2013	92214	
TYPE 2 TOTAL:						24			
TYPE 3	21	20	27	Palo Alto Fire Dept.	XSC-PAF	2	HM-2	8/02/2010	94304
	TYPE 3 TOTAL:						1		
TOTAL TEAMS PASSED INSPECTION						61			
THIS CHART IS ALWAYS AVAILABLE ON OUR WEB SITE:									
http://www.caloes.ca.gov/FireRescueSite/Pages/Team-Typing-Information.aspx									

NOTES: Changes to HM Unit status:

1. Salinas City Fire HM-2 Upgraded from a Type 2 to a **Type 1** and passed Re-Certification on 6/24/2017
2. Solano County OES HM-1 Upgraded from a Type 2 to a **Type 1** and passed Re-Certification on 7/18/2017
3. San Manuel Fire Dept. HM-241 Upgraded from a Type 2 to a **Type 1** on 4/25/2017
4. Mt. View Fire HM-5 Upgraded from a Type 3 to a **Type 2** and passed Re-Certification on 3/08/2017
5. Santa Rosa City Fire HM-1 Upgraded from a Type 3 to a **Type 2** and passed Re-Certification on 2/16/2018
6. Presidio of Monterey H2MT61 Entered into the Team Typing program as a **Type 2** Team on 9/20/2017
7. Riverside Co. Fire, HM-81 **discontinued** and Removed their Type 3 HazMat Team from the program.
8. Burbank City Fire HM-12 Passed Re-Certification on 6/08/2017
9. Glendale City Fire HM-24 Passed Re-Certification on 7/06/2017
10. Orange Co. Fire Authority HM-4 Passed Re-Certification on 8/15/2017
11. Orange Co. Fire Authority HM-79 Passed Re-Certification on 8/15/2017
12. Ventura Co. Fire HM-50 Passed Re-Certification on 6/07/2017
13. Vernon City Fire HM-151 Passed Re-Certification on 7/15/2017
14. Santa Fe Springs Fire HM-851 Passed Re-Certification on 4/20/2018
15. Alameda Co. Fire HM-12 Passed Re-Certification on 5/23/2017
16. San Jose City Fire HM-29 Passed Re-Certification on 4/05/2017
17. Santa Clara Co. Fire HM-72 Passed Re-Certification on 3/14/2017
18. Sacramento Metro Fire HM-109 Passed Re-Certification on 11/17/2017
19. Bakersfield City Fire HM-15 Passed Re-Certification on 3/16/2017
20. Fresno City Fire HM-1 Passed Re-Certification on 4/26/2018
21. Fresno City Fire HM-16 Passed Re-Certification on 4/26/2018
22. Visalia City Fire HM-55 Passed Re-Certification on 7/16/2017
23. USMC Camp Pendleton Fire HM-1 Passed Re-Certification on 8/25/2017
24. Fremont City Fire HM-57 Passed Re-Certification on 4/04/2018
25. Humboldt Bay Fire HM-8190 Passed Re-Certification on 2/26/2018
26. San Ramon Fire Prot. Dist. HM-35 Passed Re-Certification on 2/01/2017
27. Sonoma Co. Fire HM-2936 Passed Re-Certification on 3/07/2017
28. Butte Co. Fire HM-5 Passed Re-Certification on 2/02/2017
29. Truckee Fire HM-1 Passed Re-Certification on 4/11/2018
30. Kern Co. Fire HM-66 Pass Re-Certification on 3/16/2017

Changes to Chart Statistics:

1. The total number of TYPE 1 HM teams boosted to at **36**.
2. The total number of TYPE 2 HM teams decreased to **24**.
3. The total number of TYPE 3 HM teams decreases to **1**.
4. The total number of typed Metropolitan HM Teams stayed the same at **61**.

Above changes issued 4/26/2018 and posted on web page.

ICP Facility Assessment Checksheet

Facility Name:	Facility Address/phone number:	
Rental/lease cost:	Maximum Occupancy:	
General Impressions:		
Limitations/Constraints:		
Proximity to services		
Type/Name	Approximate Distances	
Interstates-		
State Routes-		
Restaurants-		
Hotels-		
Airport-		
Emergency Services-		
Copy Centers (i.e. Kinko's)-		
Other-		
Cell phone coverage		
Nearest cell tower:		
Signal strength within the ICP (on your cell phone/list provider):		
Parking	Site Security	
Adequate?	Public access controls:	
Secure?		
Number of spaces:	On-site security:	
Comments:	Security needs/comments:	

ICP physical characteristics

Facility floor plan available? (Attach to checksheet/scan to ICP e-folder)

Photo documentation? (Photograph each room and attach to checksheet/save to ICP e-folder)

Number of rooms available:

Square foot per room

	Main space:	Meeting room:	Multi-purpose room:	Other:
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Wall space per room

	Main space:	Meeting room:	Multi-purpose room:	Other:
--	-------------	---------------	---------------------	--------

Tables				
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Chairs				
--------	--	--	--	--

Telephone outlets				
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Telephones				
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Power outlets				
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Internet outlets				
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Can the facility accommodate a JIC?

Overall Impressions (comment on placement of Command/General Staff work locations/spaces, placement of Situation and Resource unit displays, capability/capacity of location, and other impressions):

Appendix G

ACRONYMS

A

ACP Area Contingency Plan

ADC Accredited Disaster Council

API American Petroleum Institute

ART Applied Response Technologies

AST Above-Ground Storage Tank

B

BLM Bureau of Land Management

BOR Bureau of Reclamation

C

CA California

CalARP California Accidental Release Prevention Program

CalOES California Office of Emergency Services

CalEPA California Environmental Protection Agency

CalOSHA California Occupational Safety and Health Administration

CalTrans California Department of Transportation

CCR California Code of Regulations

CDF/CalFire California Department of Forestry and Fire Protection

CDFW California Department of Fish and Wildlife

CERT Community Emergency Response Team

CFR Code of Federal Regulations

CFS Cubic Feet per Second

CHEMTREC Chemical Transportation Emergency Center
CHP California Highway Patrol
CHMIRS California Hazardous Materials Incident Reporting System
CHRIS California Historical Resources Information Center
CLEMARS California Law Enforcement Mutual Aid Radio System
CLERS California Law Enforcement Radio System
CNPS California Native Plant Society
COTP Captain of the Port (USCG)
CUPA Certified Unified Program Agency
CWA Clean Water Act
CWHR California Wildlife Habitats Relationship (System)

D

DOGGR Division of Oil, Gas, and Geothermal Resources (Department of Conservation)
DOI Department of the Interior
DOT Department of Transportation
DPH Department of Public Health
DPR California Department of Pesticide Regulation
DSW Disaster Service Worker
DSWVP Disaster Service Worker Volunteer Program
DTSC California Department of Toxic Substances Control
DWR California Department of Water Resources

E

EOC Emergency Operations Center
USEPA Environmental Protection Agency
ERG Emergency Response Guidebook
ESI Environmental Sensitivity Index

EU Environmental Unit

EUL Environmental Unit Leader

E

FGC Fish & Game Code

FOSC Federal On-Scene Coordinator

G

GC Government Code

GRP Geographic Response Plan

H

HAZWOPER Hazardous Waste Operations and Emergency Response

I

IAP Incident Action Plan

IC Incident Commander

ICP Incident Command Post

ICS Incident Command System

IH Industrial Hygienist

IMH Incident Management Handbook

IMT Incident Management Team

ISB In-Situ Burning

J

JIC Joint Information Center

L

LEPC Local Emergency Planning Committee

LGOSC Local Government On-Scene Coordinator

M

MMAA Master Mutual Aid Agreement

MOU Memorandum of Understanding

N

NAHC Native American Heritage Commission

NALEMARS National Law Enforcement Mutual Aid Radio System

NCP National Contingency Plan

NEBA Net Environmental Benefit Analysis

NGO Non-Governmental Organization

NIMS National Incident Management System

NOAA National Oceanic and Atmospheric Administration

NRC National Response Center

NRDA Natural Resource Damage Assessment

NWVP Non-Wildlife Volunteer Program

O

OEHHA Office of Environmental Health Hazard Assessment

OPA 90 Oil Pollution Act of 1990

OSC On-Scene Coordinator

OSCA Oil Spill Clean Up Agent

OSLTF Oil Spill Liability Trust Fund

OSPR Office of Spill Prevention and Response

OWCN Oiled Wildlife Care Network

P

PA Participating Agency

PPE Personal Protective Equipment

PRC Public Resources Code

R

RCP Regional Contingency Plan

RGS Reconnaissance Group Supervisor

RP Responsible Party

RRT Regional Response Team

RWQCB Regional Water Quality Control Board

S

SCAT Shoreline Clean-Up and Assessment Technique

SEMS Standardized Emergency Management System

SHPO State Historic Preservation Officer

SIMA Spill Impact Mitigation Assessment

SMARS Statewide Mutual Aid Radio System

SOFR Safety Officer

SOP Standard Operating Procedures

SOSC State On-Scene Coordinator

SPCC Spill Prevention Containment and Countermeasures

SRT Self-Regulated Tide (gate)

SWA Surface Washing Agent

SWRCB State Water Resources Control Board

T

TSD Treatment, Storage, and Disposal

U

UC Unified Command

USCG United States Coast Guard

USEPA United States Environmental Protection Agency

USFWS United States Fish & Wildlife Service

USGS United States Geologic Survey

UST Underground Storage Tank

V

VC Volunteer Coordinator

VHF Very High Frequency

VU Volunteer Unit

VUL Volunteer Unit Leader

W

WISER Wireless Information System for Emergency Responders

WRGS Wildlife Recovery Group Supervisor

WRP Wildlife Response Plan

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