CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Office of Spill Prevention and Response

Ballona Creek

GEOGRAPHIC RESPONSE PLAN | December 2024

Los Angeles County

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Spill Response Contact Sheet

Immediate Emergency Notifications for Oil Spills Call Upon Discovery of Spill	
	*** Staffed 24-Hours/Day**
Local Emergency Response Agencies	**911***
State Notification - California Office of Emergency Services, State Warning Center (State Law requires that ANY discharge or threatened discharge of oil into STATE WATERS must be reported to Cal OES immediately) †See Footnote on spill thresholds for notification.	**(800) 852-7550***
Certified Unified Program Agency (CUPA) (CalOES Spill Report will be emailed to CUPA as part of their immediate notification)	
El Segundo City Fire Department	**(310) 524-2395**
Glendale City Fire Department	**(818) 548-4810**
Long Beach Environmental Health	**(562) 570-4136**
Los Angeles City Fire Department	**(213) 978-3680**
Los Angeles County Fire Department	**(323) 890-4000**
Santa Fe Springs Fire-Rescue	**(562) 944-9713**
Santa Monica Fire Department	**(310) 458-4971**
Vernon Health & Environmental Control Department	**(323) 826-1448**
Federal Notification - National Response Center: Any person in charge of a vessel or of an onshore or offshore facility is subject to the federal reporting requirements of the Discharge of Oil regulation if it discharges a harmful quantity of oil to U.S. navigable waters, adjoining shorelines, or the contiguous zone. ‡	**(800) 424-8802***
Infrastructure Emergency Notification: Promptly Notify	
Railroad, Pipeline, Fixed Facilities	
Crimson Pipeline	**(866) 351-7473***
Chevron Pipeline	**(800) 762-3404***
Shell Pipeline	**(800) 367-7752***
Marathon Petroleum	**(800) 435-1371***
PBF Logistics Pipeline	**(281) 602-4220***
City of Los Angeles Office of Petroleum and Natural Gas Administration and Safety	**311***
County of Los Angeles Office of Oil and Gas	**(818) 259-1066**
Southern California Edison (SCE)	**(800) 611-1911***
Southern California Gas	**(800) 427-2200***
Highways, Utilities, Dams, Other Infrastructure	
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**
Los Angeles County Metropolitan Transportation Authority	**(800) 396-2166***
California Department of Transportation (Caltrans), Los Angeles, District 7	**(213) 897-3656**
County of Los Angeles Department of Public Works, Ballona Wetlands Tidal Gates	**(562) 861-0316 (626) 458-4357***

	* Staffed 24-Hours/Day
Highways, Utilities, Dams, Other Infrastructure, continued	
City of Los Angeles Recreation and Parks, Del Rey Lagoon Tidal Gates	(818) 441-2874* Angel Mendoza, (213) 572-9917* James Sipotz
Oil Spill Response Agency Notifications: Promptly Notify	
CDFW Office of Spill Prevention and Response (OSPR)	
OSPR Dispatch - Report Oil Spills	800-852-7550* or 800-OILS-911*
Oiled Wildlife Care Network	
OWCN Activation/Oiled Wildlife Hotline	(877) 823-6926*
U.S. Environmental Protection Agency	
24-Hour Duty Officer	(800) 300-2193*
CALFIRE Office of the State Fire Marshal	
24-Hour Duty Chief	(916) 323-7390*
On-Call Pipeline Safety Engineer: Doug Allen	(916) 591-0699
On-Call Pipeline Safety Engineer: Alin Podoreanu	(916) 212-8891
Local Fire and Law Enforcement	
City of Los Angeles Police Department Pacific Division	(310) 482-6334*
City of Culver City Police Department	(310) 837-1221*
Los Angeles County Harbor Patrol, Marina del Rey Sheriff's Station	(310) 482-6000*
City of Culver City Fire Department	(310) 253-5900*
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)	
County of Los Angeles Office of Emergency Management	(323) 459-3779*
County of Los Angeles Department of Public Health Duty Officer	(213) 989-7140*
City of Los Angeles Emergency Management Department	(213) 484-4800 (213) 200-6414*
Los Angeles County Department of Beaches and Harbors	(424) 526-7777
Affected or Adjacent Agencies to Notify Early-On as Appropriate; If In Doubt, Notify	
Water Districts, Water Intakes and County Water Agencies	
Los Angeles Department of Water & Power	(800) 342-5397*
Metropolitan Water District	(213) 217-6000*
Public Works and Traffic Control	
City of Los Angeles Department of Public Works	311*
County of Los Angeles Department of Public Works	(800) 675-4357* (626) 458-4357
City of Culver City Public Works	(310) 253-6420
Statewide Traffic Safety & Signs, Santa Ana	(714) 468-1919

	*** Staffed 24-Hours/Day**
Additional Contact Information as Appropriate; If In Doubt, Notify	
Federal Agencies	
U.S. Department of the Interior, Regional Environmental Officer	**(415) 420-0524**
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) 521-3801**
U.S. Fish & Wildlife Service (Carlsbad)	**(760) 431-9440 (760) 607-9768***
USFWS Regional Spill Response Coordinator Vacant	
NOAA Scientific Support Coordinator, Jordan Stout	**(206) 321-3320***
FEMA Region IX, 24-Hour Duty Officer	**(510) 627-7700* (800) 395-6042***
State Agencies	
Calif. Department of Fish and Wildlife, Region 5, Regional Manager, Erinn Wilson-Olgin	**(562) 900-8138**
CalEPA Duty Officer Email: epadofficer@calepa.mail.onmicrosoft.com	
Jason Boetzer, REHS Deputy Secretary Local Program Coordination and Emergency Management	**o: (916) 327-9558 c: (916) 715-3005**
John Elkins Environmental Program Manager Emergency Response, Refinery Safety, CalARP, & HMBP	**c: (916) 804-8349**
Kristi Placencia Senior Emergency Services Coordinator	**o: (916) 327-7780 c: (916) 601-7845**
CAL FIRE - Office of the State Fire Marshal, Pipeline Safety Division, Long Beach	**(562) 497-0350**
Calif. Regional Water Quality Control Board (Los Angeles)	**(213) 576-6600**
State Water Resources Control Board, Division of Drinking Water, Southern California Field Operations Branch, Angeles Office	**OES Warning Center (800) 852-7550* or (818) 551-2004 Ask for SWRCB - Division of Drinking Water - Field Operations Branch**
State Water Resources Control Board, Emergency Management Program	**Sarah Ries (916) 809-2558* Laura Fisher (916) 747-5501***
Calif. Department of Water Resources	**(916) 574-2714**
Calif. Geologic Energy Management Division	**(916) 322-1110 (562) 637-4400***
Calif. Department of Toxic Substance Control	**(800) 260-3972 (800) 852-7550***
Calif. Department of Public Health, Duty Officer	**(916) 328-3605***

	* Staffed 24-Hours/Day
State and Federally Managed Lands	
Ballona Wetlands Ecological Reserve, Richard Brody, CDFW Region 5	**(310) 455-3243**
Dockweiler State Beach, RV Park	**(310) 322-4951**
Dockweiler State Beach, Youth Center	**(310) 726-4128**
Tribal and Historic Contacts (Individual Tribal contacts can be found on page 99)	
Native American Heritage Commission (NAHC)	**(916) 373-3710**
Andrew Green	**(916) 373-3710**
California Historic Resources Information System (CHRIS), South Central Coastal Information Center	**(657) 278-5395**
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**
CHEMTREC 24-Hour Hotline	**(800) 424-9300***
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 24-Hour Hotline	**(800) 222-1222***
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.	

Footnotes

†California State Warning Center (Califonia 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
Any person in charge of a vessel or of an onshore or offshore facility is subject to the federal reporting requirements of the Discharge of Oil regulation if it discharges a harmful quantity of oil to U.S. navigable waters, adjoining shorelines, or the contiguous zone. A harmful quantity is any quantity of discharged oil that violates state water quality standards, causes a film or sheen on the water's surface, or leaves sludge or emulsion beneath the surface. A facility should report discharges to the National Response Center.

The requirement for reporting oil spills stems from the Discharge of Oil Regulation, known as the "sheen rule." Under this regulation, oil spill reporting does not depend on the specific amount of oil spilled, but on the presence of a visible sheen created by the spilled oil. If a facility or vessel discharges oil to navigable waters or adjoining shorelines, waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or Deepwater Port Act of 1974, or which may affect natural resources under exclusive U.S. authority, the owner/operator is required to follow certain federal reporting requirements. These requirements are found in two EPA regulations – 40 CFR part 110, Discharge of Oil regulation, and 40 CFR part 112, Oil Pollution Prevention regulation. The Discharge of Oil regulation provides the framework for determining whether an oil discharge to inland and coastal waters or

adjoining shorelines should be reported to the National Response Center. The Oil Pollution Prevention regulation, part of which is commonly referred to as the "SPCC rule," identifies certain types of discharges from regulated facilities that also need to be reported to EPA. https://www.epa.gov/sites/production/files/2014-06/documents/spccfactsheetspillreportingdec06-1.pdf
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 1-1, 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 43-44
- Chapter 3, Figure 3-4, pages 59-60
- Chapter 4, Table 4-1b-e on pages 89 – 92

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

- Chapter 3, Table 3-1, pages 27-30
- Chapter 4, Table 4-1a, pages 87-88

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

- Appendix F, Table F-2, pages 121-122

The following pages are provided in "landscape" orientation, 8.5 x 11.5:

- Appendix F, Figure F-2, pages 123-124

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 actual 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 potential impacts that oil may have on the environment as well as any 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. Revisions to the GRP will be completed every five 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. The GRP boundary begins where Ballona Creek daylights northeast of Culver City and continues to the Pacific Ocean in Santa Monica Bay. The GRP area is 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 with updates to the ICS 232 or using the ICS 204. 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 response.

Guiding Principles for GRPs

1. The safety and health of responders and the public 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 (velocity/flow, water levels, gradient), 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 (i.e., Environmental Unit) 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

Control and containment of an oil spill at the source is a higher priority than 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, tribal nation, and 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, non-floating oils, 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 evaluation 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

The Office of Spill Prevention and Response (OSPR) develops and maintains Geographic Response Plans (GRPs) for inland waters of California. GRPs are developed through committees, workshops, and meetings with federal, state, and local oil spill emergency response experts, tribal nation representatives, industry partners, 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 Los Angeles County (Figure 1-1). The GRP boundary begins where Ballona Creek daylights from underground storm drains, northeast of Culver City (Figure 1-2). The boundary terminates where the creek meets the ocean in Santa Monica Bay which coincides with the United States Coast Guard (USCG) Sector Los Angeles/Long Beach Area Contingency Plan (ACP).

Two concrete-lined feeder creeks are included within the GRP boundary, Sepulveda Channel and Centinela Channel. The expanded boundary near Loyola incorporates the historic watercourse, also part of Ballona Wetlands, 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 input from interested parties 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, LEPC Region I, and the Sector Los Angeles/Long Beach ACP.

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 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. The basic framework for the response management structure is a system (e.g., an 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 OSC maintains authority. National Contingency Plan (NCP) – 40 CFR §300.105 and 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 (e.g., fixed facility, pipeline, railroad) response plan, or if no plan exists, in coordination with the Unified Command (UC). 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).

Regional Response Team IX

During an oil spill, the FOSC can request the use of Applied Response Technology (ART) by making a formal request of Regional Response Team (RRT) IX. It is the policy of RRT IX to respond to all such FOSC requests within 2 hours. RRT approvals to use ART are only issued to the FOSC, although it is expected that the FOSC will want agreement from the Unified Command (UC) members with the ART actions that will be taken.

OSPR is a member of RRT IX. In addition to their voting role on the RRT, the OSPR Administrator has a separate approval authority granted under state law when an ART is considered for use in, on, near, or threatening state waters. See California Code of Regulations on the use of Response Technologies, Licensing and Use of Oil Spill Cleanup Agents regulations 14 CCR 884-886.4 (ca.gov), and the RRT IX Regional Contingency Plan Dispersant Use Plan for California Waters.

RRTs are composed of representatives from field offices of the federal agencies that make up the National Response Team (NRT), as well as state representatives. The four major responsibilities of RRTs are: Response, Planning, Training, and Coordination. (https://www.epa.gov/emergency-response/regional-response-teams).

See the GRP Companion Manual, Section 3, for detailed information on ART.

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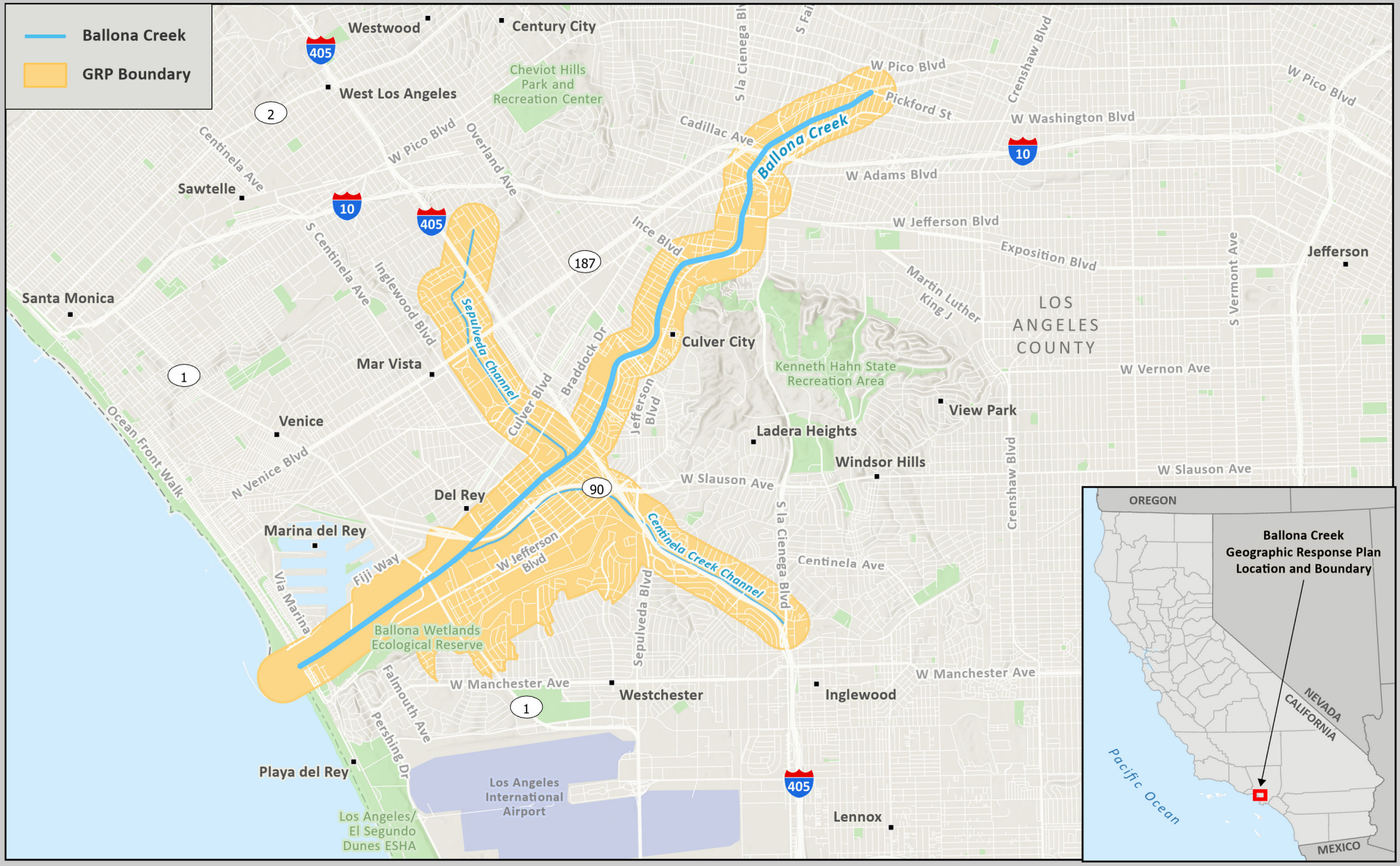
Figure 1-1: Ballona Creek GRP Location and Boundary Map



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

Data Source: CDFW-OSPR
Requestor: OSPR
Author: L. Studen
Date Created: 03/25/2024

Map Scale: 1:84,000
Map Coordinate System:
NAD83 California Teale Albers (m)

Ballona Creek Geographic Response Plan (GRP) Location and Boundary

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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 Geographic Response Plan Companion Manual (GRP CM).

The first emergency responder to arrive at the incident site will assume the role of Incident Commander (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 ICs from local, state, and federal agencies, or the Responsible Party (RP), arrive on-scene, they will be incorporated into a Unified Command (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 (e.g., spill characterization, containment, etc.) shall be coordinated through the IC or a duly appointed Operations Section Chief.

Incident Objectives

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, including the unhoused by engaging local health agencies

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.

- If there are unhoused encampments in the area, consider the following potential hazards:
    - Being approached by aggressive or unpredictable persons or pets, weapons.
    - Biological hazards including human waste, needles/syringes/sharps, bedbugs and lice.
    - Chemical hazards including petroleum products, aerosols, paints, solvents, and drug labs.
    - Open flames/ignition sources or electrical hazards.
- 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?
- Are there unhoused encampments in the area?
- 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 NOAA CAMEO Chemicals 2024 Emergency Response Guidebook (ERG) or Department of Transportation (DOT) ERG recommendations for establishing safe distances and safety information. See the GRP CM, Section 5, for Web Links to Information Resources.
- Fire/Explosion – 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 including those associated with unhoused encampments.
- Consider current and expected weather.
- Consider worst-case scenario.
- Prepare for first responder rescue.
- Establish an accountability system for incident personnel.
- Establish a buddy-system for entering or passing by unhoused encampments.

Public Safety (Notify and Integrate Local, State, and Federal Public Health Agencies)

- 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, unhoused encampments, 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.
        - Identify through CUPA (Section 2.9 below) or County Health (if not the CUPA), a shelter-in-place location for evacuated unhoused encampments.
        - 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 NOAA CAMEO Chemicals 2024 ERG or Department of Transportation (DOT) ERG.
- 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, Incident Command System (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 Geographic Response Plan (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 Velocity and Time to Travel

Current river stage and flow data are available for Ballona Creek through the Los Angeles County Department of Public Works Stormwater Engineering Division website and the National Oceanic and Atmospheric Administration (NOAA) National Weather Service website National Weather Service Advanced Hydrologic Prediction Service 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 (NHD), is 1.92 feet per second (1.1 knots).

The USGS Stream Stats Time of Travel Tool can help estimate travel distance from point of release based on current flow conditions. Utilize the flow data (cfs) from the Los Angeles County Department of Public Works Stormwater Engineering Division in step 5 of the Time to Travel Tool Job Aid in Appendix F.

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

The California Department of Fish and Wildlife (CDFW) Office of Spill Prevention and Response (OSPR) administers an Oil Spill Response Equipment Grant Program; the objective is to award grants to local government agencies including cities, counties, port districts, and tribal nation governments for the purchase of oil spill response equipment. The grant award also includes staging location, equipment familiarization, hands-on boom deployment training and delivery. The purpose of this program is to support local first responders and protect these agencies' economic interests during an oil spill response. Table 2-1 below provides information on the nearest response equipment trailers to the GRP boundary. Equipment trailers are staged in various locations throughout the State and can be accessed during a response. Appendix G provides a list of additional response trailers that may be available to deploy.

Table 2-1: OSPR Regional Response Trailer Locations

Agency	Equipment Location	Boom	Contact Name and Phone Number
County of Los Angeles Beaches & Harbors	13524 Bali Way Marina Del Rey, CA	6 in x 12 in, 1,000 feet	Jose Bedolla (310) 901-9116, or Ken Foreman (424) 526-7840 kforemanSr@bh.lacounty.gov
City of Seal Beach Police Department	911 Seal Beach Blvd. Seal Beach, CA	6 in x 12 in, 1,000 feet	Sergeant Brian Gray, (949) 390-4926 Dispatch (562) 594-7232 bgray@sealbeachca.gov
City of Huntington Beach	Fire Station #6, 18591 Edwards Street Huntington Beach, CA	6 in x 12 in, 1,000 feet	Bryan Kistler (714) 375-8400 bkistler@surfcity-hb.org

2.5 Local/Regional Asset Resources

Appendix G 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
- UAS equipment and pilots
- 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 Unoccupied Aircraft System

CDFW has an Unoccupied Aircraft System (UAS) Program that manages the use of UAS within the Department. OSPR has adapted this technology to assist with oil spill response. Opportunities exist to utilize UAS with situation data collection and Shoreline Cleanup Assessment Technique (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. See Appendix G for additional UAS equipment and pilots.

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 G 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	Address	Contact Name and Phone Number
Dockweiler Youth Center	12505 Vista Del Mar Playa Del Rey, CA 90293	County of Los Angeles Dept. of Beaches and Harbors (310) 726-4128
Veteran's Memorial Building	4117 Overland Ave. Culver City, CA 90230	City of Culver City (310) 253-6625
American Legion	5309 Sepulveda Blvd Culver City, CA	(310) 391-3087
Burton Chace Park Community Room	13650 Mindanao Way Marina Del Rey, CA	(424) 526-7910

2.8 Public Works

Public works departments are 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. Open channels and storm drains are often the conduit for oil getting into the mainstem of a river. Rapidly coordinating with the local public works departments to obtain information on storm drain systems is recommended, see the Contact Sheet at the beginning of the GRP for public works contact information. Local street and road departments are also 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 department) 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. See section 2.9, Public Health, for small public water systems.

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 to 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	Agency	Contact Name and 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	Angel Mendoza, (818) 441-2874, 24/7 James Sipotz, (213) 572-9917, 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/HORespInEmergencies1998.pdf.

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

Certified Unified Program Agencies

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. A list of CUPAs has been developed and is maintained by the California Environmental Protection Agency (CalEPA), Unified Program Section (see https://cersapps.calepa.ca.gov/Public/Directory/). Table 2-4 below lists the CUPAs for Los Angeles County (current as of10/2024). 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 Heath	2525 Grand Avenue Long Beach, CA	(562) 570-4136
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) 458-4971
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 an oil 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 Coordinator and provide the following information (as available):

- Location
- Product
- Volume
- Weather
- Known fisheries

- Known media interest
- Spill trajectory

The OSPR Fisheries 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 downstream 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 California Highway Patrol (CHP), Caltrans and Statewide Traffic Safety & Signs contact information.

During Strategy Implementation (Things to Remember)

- On-scene conditions (weather, river stage and flow, wind, 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 the next 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 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 on incoming tactical resources, as well as needed assessment briefings for the Incident Management Team (IMT). Per Oil OPA 90, the UC consists of a Federal On-Scene Coordinator (FOSC), State On-Scene Coordinator (SOSC), and the RP.

2.12 Command Staff

Under the Incident Command System, Command Staff report directly to the UC. Command staff roles consist of the Public Information Officer (PIO), Liaison Officer (LOFR), and Safety Officer (SOFR). The Command Staff is assigned to carry out staff functions needed to support the Incident Commander. Command Staff positions are established to assign responsibility for key activities not specifically identified in the General Staff functional elements.

The PIO is responsible for the coordination and release of all information to the response workers, the media, and the public. In addition, the PIO is responsible for press releases and the scheduling of press conferences related to the incident. The PIO may also establish a Joint Information Center (JIC), which is a coordination with the media and other agencies, to facilitate the coordinated release of available information. For additional information on Command Staff, see Section 6 of the GRP CM.

The LOFR is responsible for effectively engaging with Tribal Nations, agencies, and other interested parties in support of the incident. Forward-leaning, comprehensive LOFR efforts can help coordinate agency resources effectively and can impact public perception of the success or appropriateness of response activities. These factors are critical to overall response success. The LOFR works closely with the PIO, Volunteer Unit Leader, and Public Health Assessment Unit Leader. For additional information on Command Staff, see Section 6 of the GRP CM.

The SOFR is responsible for the safety of all responders associated with the response and compliance with applicable safety laws and regulations. Also, the SOFR is responsible for assessing hazardous and unsafe situations and developing measures for assuring personnel safety. This responsibility is limited to the boundaries of the response and does not extend to public safety measures not under the incident control and authority of the IC/UC. For additional information on Command Staff, see 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, the ICS structure may not contain any positions specifically dedicated to volunteer management. Volunteers are only utilized if there is a specific role for them to fill. As the IC/UC becomes aware of individuals or organizations interested in providing volunteer services, the IC/UC should activate a volunteer coordinator to address volunteer interest. Only volunteers approved by the IC/UC are allowed to participate in spill response activities. 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.

2.15 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, 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 (CalOES, 2017).

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 (CalOES, 2017). 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 Local Emergency Planning Committees (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 (CalOES, 2017).

Details on Mutual Aid as outlined in the State of California State Emergency Plan, 2017, can be found in Section 9 of the GRP CM.

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 strategies should be implemented based primarily on the release origin point and the nearest appropriate downstream 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/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 colored block (red, yellow, or blue) 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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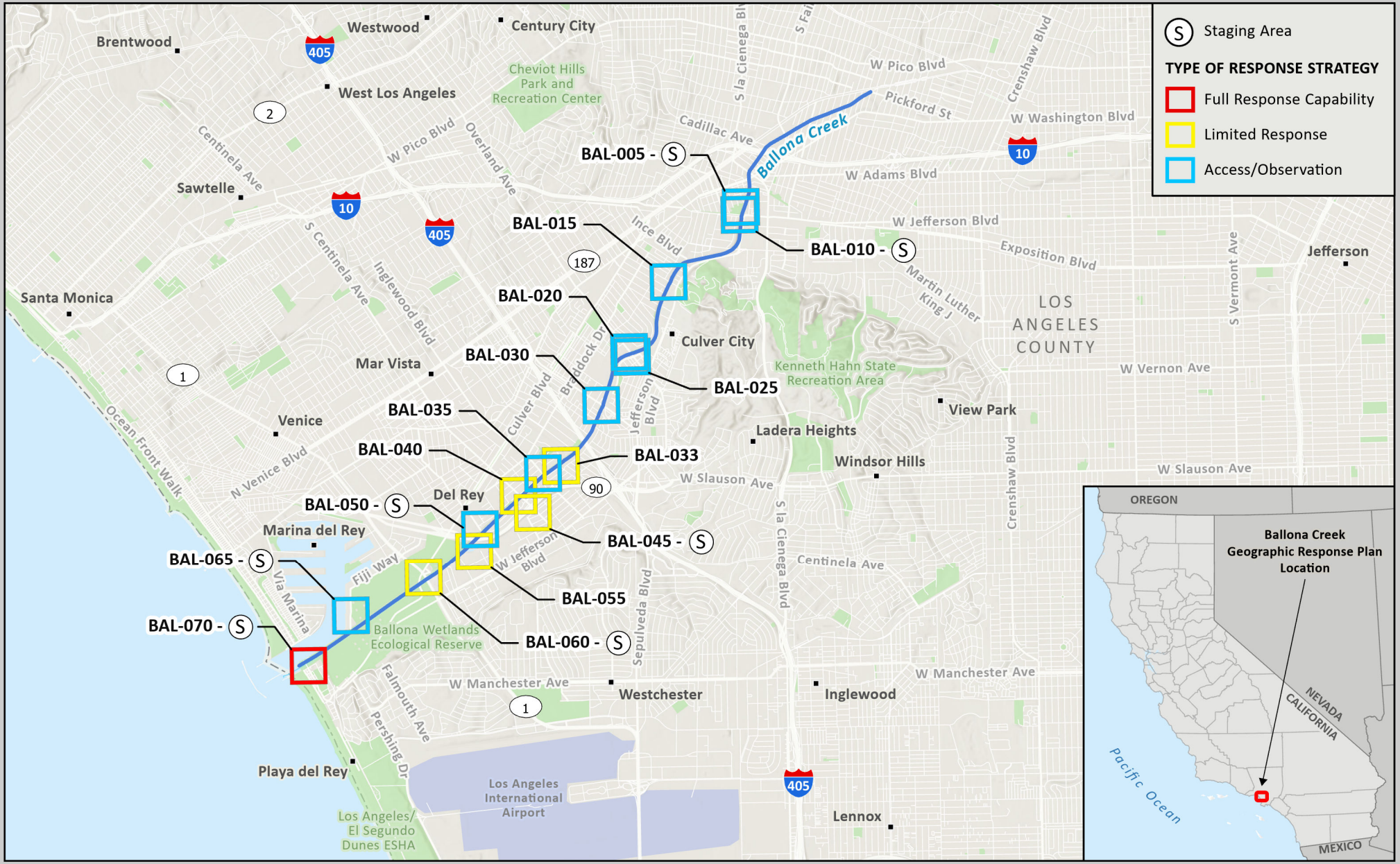
Figure 3-1: Ballona Creek GRP Response Strategy Map Index



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

Data Source: CDFW-OSPR
Requestor: OSPR
Author: L. Studen
Date Created: 03/25/2024

Map Scale: 1:84,000
Map Coordinate System:
NAD83 California Teale Albers (m)

Ballona Creek Geographic Response Plan (GRP) Strategy Map Index

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0 2 4 km

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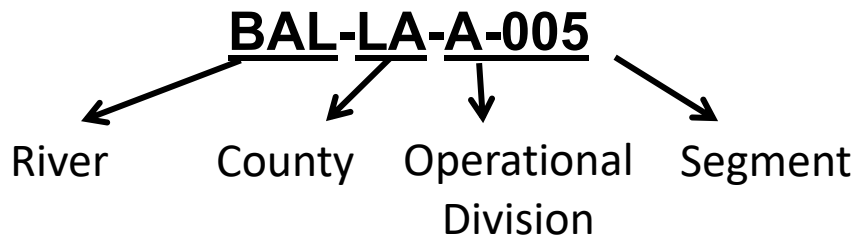
3.2 Naming Conventions – Operational Division and Segments and Site Strategies

Operational divisions and segments are presented in this GRP 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 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 considerations for prioritizing response activities and the implementation of GRP strategies 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 and the downstream trajectory of the oil based on surface water velocity.
- 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. Unhoused encampments. Steep banks.	N/A	N/A	35
S 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. Unhoused encampments. Steep banks.	N/A	33	39
S BAL-010	**Exposition Line Bike Path** Exposition Line bike path at Ballona Creek, City of Culver City	34.02785, -118.37603	Access/Observation	N/A	N/A	N/A	Limited staging on bike path. Large staging area at nearby Syd Kronenthal Park (aka McManus Park).	Dangerous swiftwater after rainfall. Unhoused 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. Unhoused encampments. Steep banks.	N/A	43	45
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. Unhoused encampments. Steep banks.	N/A	43	47

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-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	N/A	Dangerous swiftwater after rainfall. Unhoused encampments. Steep banks.	N/A	43	49
BAL-030	**Sepulveda Blvd. Crossing** Sepulveda Blvd. at Ballona Creek, City of Los Angeles	33.99979, -118.40151	Access/Observation	N/A	N/A	N/A	N/A	Dangerous swiftwater after rainfall. Unhoused encampments. Steep banks.	N/A	43	51
BAL-033	**Mesmer Ave.** Mesmer Ave. at Culver Dr., City of Los Angeles	33.59280, -118.24316	Deflection boom and collection.	200 ft.	N/A	Channel bottom is approximately 66 ft. wide. End of tidal influence.	Limited on south side of the creek. Boom trucks, trailer, vacuum trucks and temporary storage tanks could use the space within the gated entrance on Mesmer Ave., but it is limited and narrow.	Dangerous swiftwater after rainfall. Unhoused encampments. Steep banks. Locked gate (LA County Public Works)	N/A	43	53
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. Unhoused encampments. Steep banks.	N/A	43	57
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.	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. Unhoused encampments. Steep banks.	N/A	59	61
(S) BAL-045	**Centinela Creek at Hammack St. Alleyway** Centinela Creek at Hammack St. Alleyway, City of Los Angeles	33.98448, -118.41368	Sandbag dam	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. Unhoused encampments. Steep banks.	N/A	59	65

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 #
S 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. Unhoused encampments. Steep banks.	N/A	59	69
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.	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. Unhoused encampments. Steep banks.	N/A	59	71
S 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. Unhoused encampments. Steep banks.	N/A	59	75
S BAL-065	**Marvin Braude 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. Unhoused encampments. Steep banks.	N/A	59	79
S 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.	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. Unhoused encampments. Steep banks.	N/A	59	81

Table Legend		
RED	**Full Response Capabilites**	Access to site for large equipment and full deployment.
YELLOW	**Limited Response**	Access to site may be limited; have to cross railraod tracks, etc., may not get large equipment to site.
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.
Ⓢ	**Staging Areas**	Response Strategy and Access/Observation Sites with a potential staging area are denoted with a purple triangle.

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. Description of color coding and response strategy type are listed below:

RED	**Full Response**	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.

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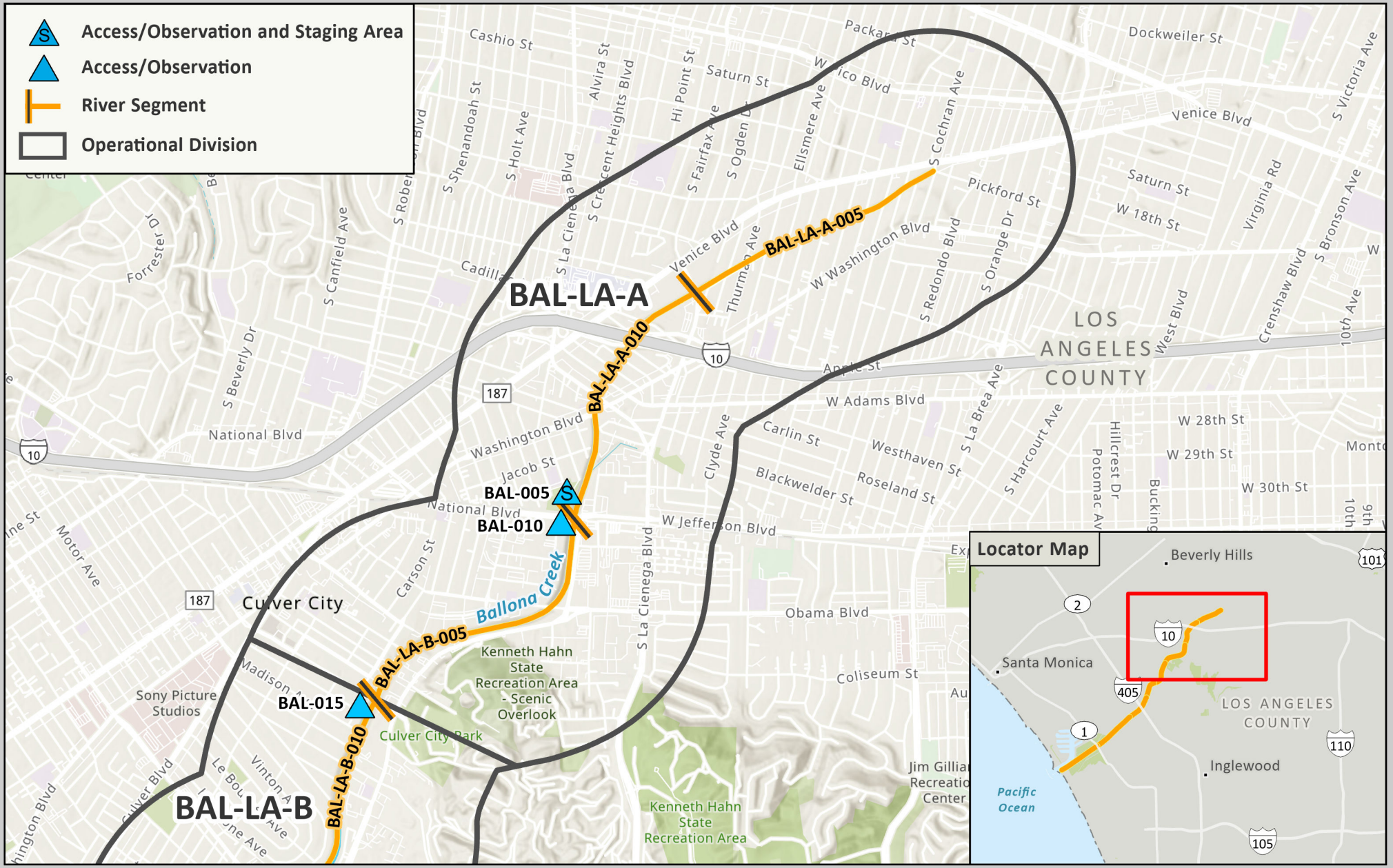
Figure 3-2: Ballona Creek GRP Division BAL-LA-A Map



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

Data Source: CDFW-OSPR
Requestor: OSPR
Author: L. Studen
Date Created: 03/23/2024

Map Scale: 1:30,000
Map Coordinate System:
NAD83 California Teale Albers (m)

Ballona Creek Geographic Response Plan Division BAL-LA-A

0 0.5 1 mi
0 0.8 1.6 km

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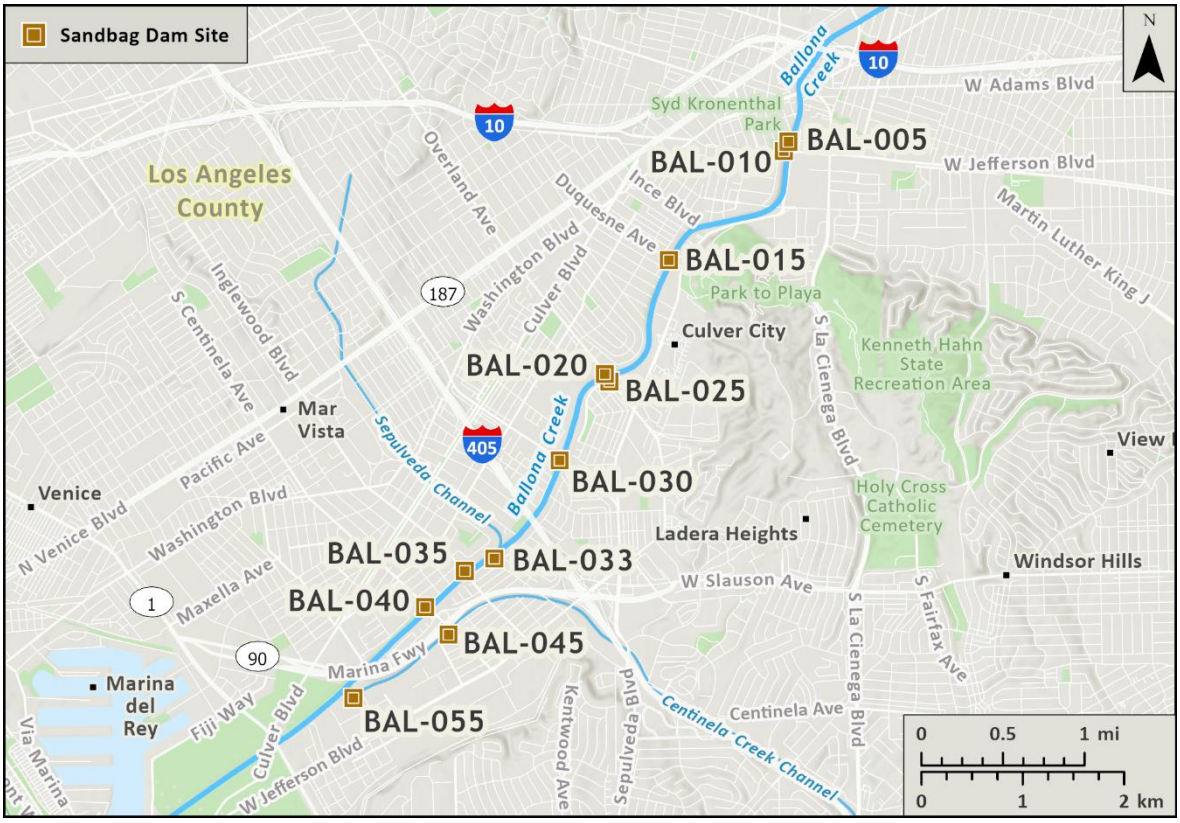
Response Strategy Site: Sandbag Dam Strategy (BAL-000)			Page 1 of 3
Driving Directions:	Area can be accessed via I-405 from the north or south. Or, from I-10 from the east or west using several exits. Several street crossings have access. See Access/Observation sites.		
Latitude/ Longitude: 34.04429, -118.35390 downstream to 33.98690, -118.41559	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: N/A			

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swift water after rainfall
- Unhoused 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				
Site Strategies: BAL-005 thru BAL-045 and BAL-055	**Site Description and Field Notes:** 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.			
Gradient: Low	**River Width:** Varies	**Vehicular Access:** Passenger Vehicle	**Recreational Use:** N/A	**Boat Launches:** N/A
Site Contact/s:	LA County Public Works (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours			
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

Response Strategy Site: Sandbag Dam Strategy (BAL-000)	Page 3 of 3
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	Quantity	Special Equipment or Comments
Sandbags					Sandbag dam minimum of 3 feet high
Piping					For sandbag dam underflow
Ladder	Extension	20	Feet		For access to channel bottom from bike path

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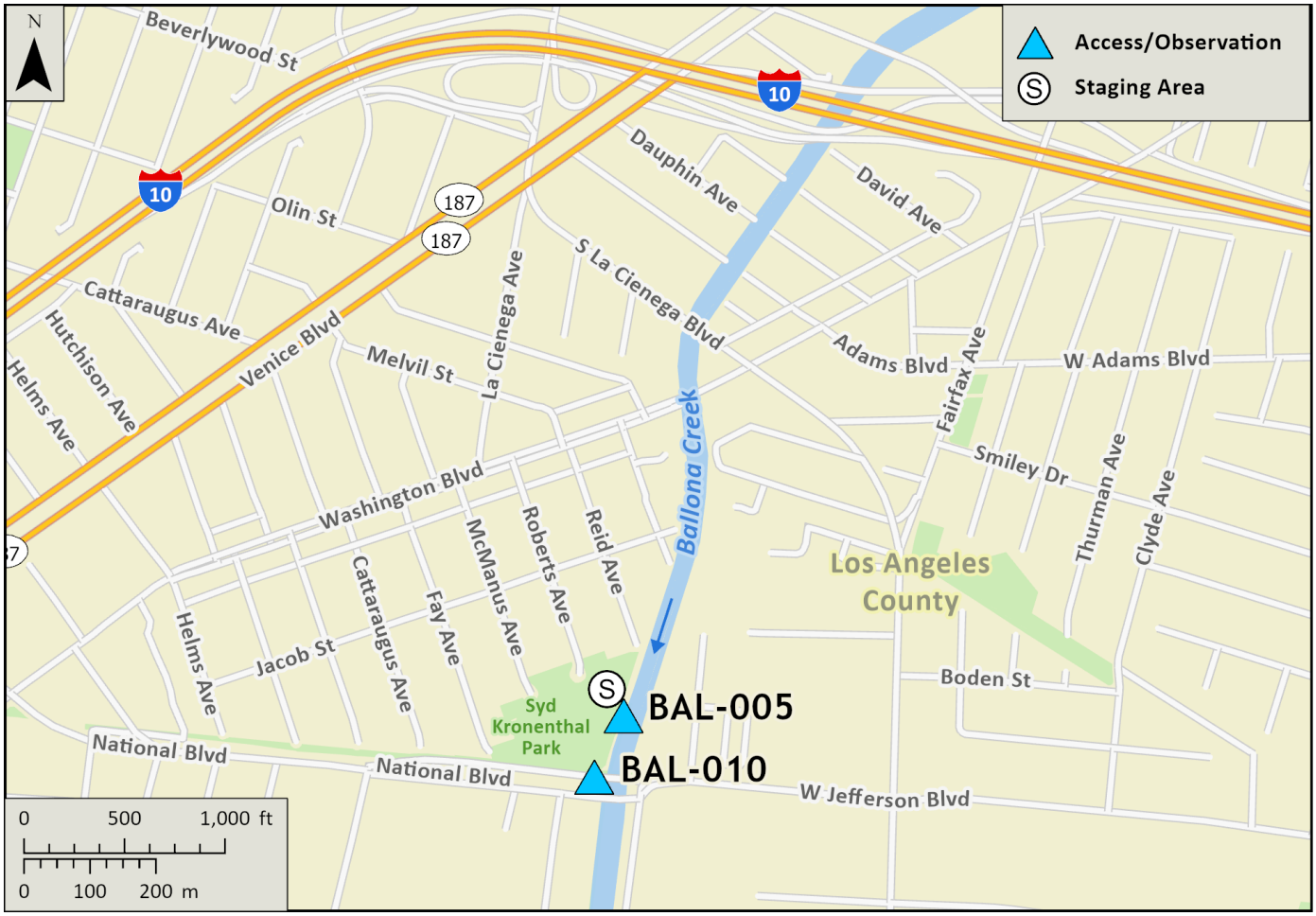
Access/Observation Site: Syd Kronenthal Park (BAL-005)			Page 1 of 2
Driving Directions:	**From the South (Long Beach):** I-405 North to La Cienega Blvd. to Washington Blvd. Turn left on Washington Blvd. to McManus Ave. Turn left on McManus Ave. to Syd Kronenthal Park. **From the North (Ventura):** US-101 South to I-405 South to I-10 E. Exit La Cienega Blvd., take Venice Blvd. and Cattaraugus Ave. to McManus Ave.		
Latitude: 34.02803 **Longitude:** -118.37673	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 3459 McManus Ave., Culver City, CA 90232			

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swift water after rainfall
- Unhoused encampments
- Steep banks
- Active park, be careful of park occupants

Access/Observation Site: Syd Kronenthal Park (BAL-005)	Page 2 of 2

Site Description and Field Notes

Site Location/Segment: BAL-LA-A-010, Sandbag Site Strategy	**Site Description and Field Notes:** 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 (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours

Site Images

Upstream

Downstream

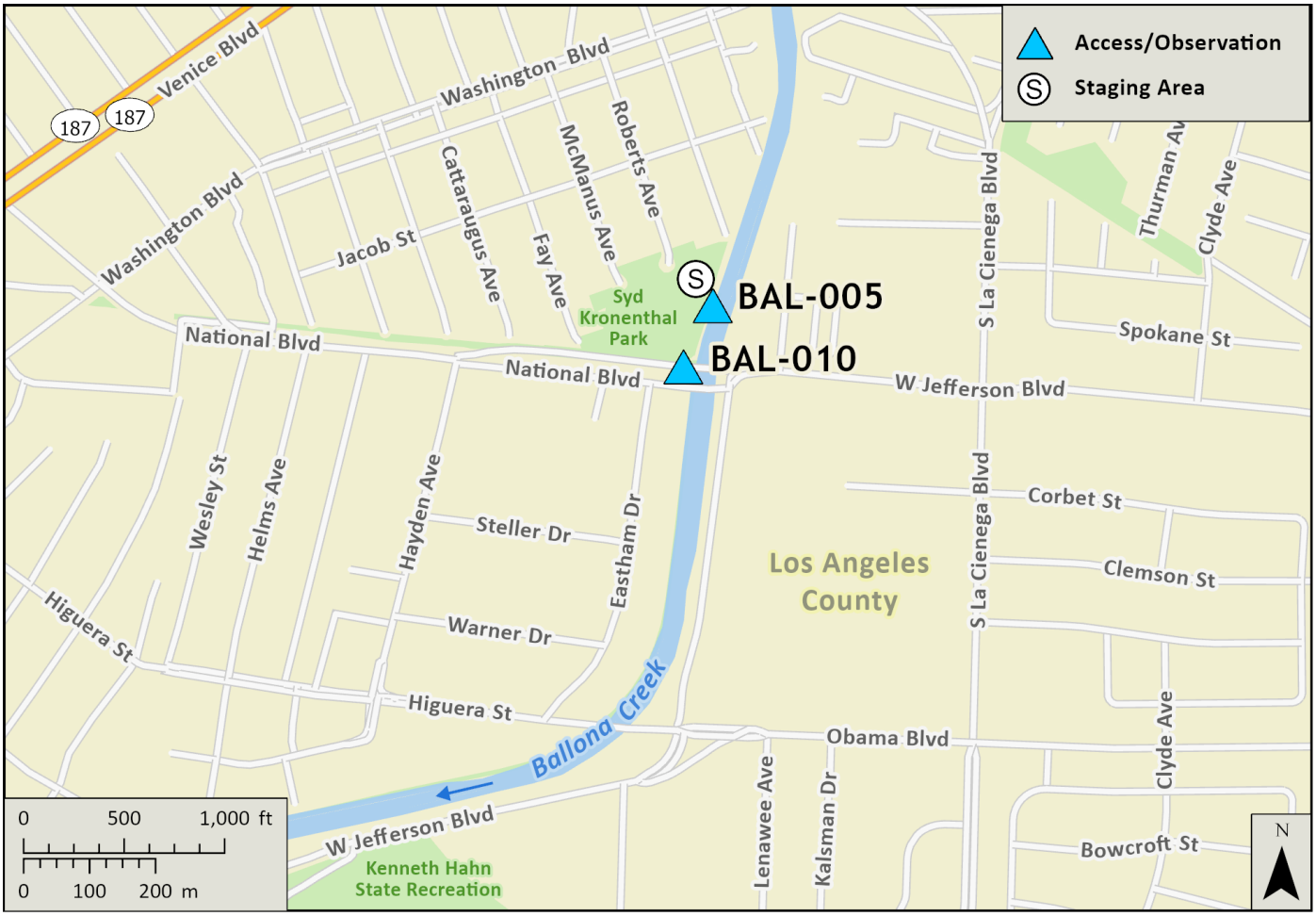
Entrance

RR = River Right RL = River Left

Photo Date: 7/18/2023

Access/Observation Site: Exposition Line Bike Path (BAL-010) (S)			Page 1 of 2
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., travel east to Jefferson Blvd. at Exposition Rail Line on bike path.		
Latitude: 34.02693 **Longitude:** -118.37701	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 5741 W Jefferson Blvd., Los Angeles, CA 90016			

Overview Street Map



Hazards, Restrictions and Advice for Responders

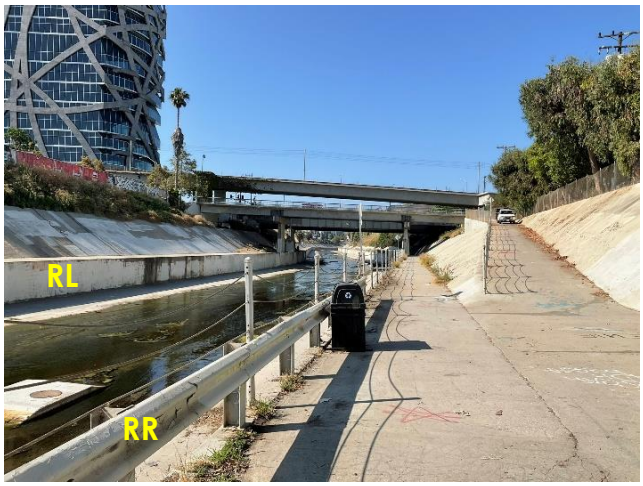
- Dangerous swift water after rainfall
- Unhoused encampments/biological hazards
- Locked gates
- Vehicle traffic

Access/Observation Site: Exposition Line Bike Path (BAL-010)		Page 2 of 2
Site Description and Field Notes		
Site Location/Segment: BAL-LA-A-010, Sandbag Site Strategy	**Site Description and Field Notes:** 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 (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours	

Site Images

Upstream

Downstream



Entrance

RR = River Right RL = River Left

Photo Date: 7/18/2023

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: L. Studen
Date Created: 03/23/2024

Map Scale: 1:28,000
Map Coordinate System:
NAD83 California Teale Albers (m)

Ballona Creek
Geographic Response Plan
Division BAL-LA-B

0 0.5 1 mi
0 0.8 1.6 km

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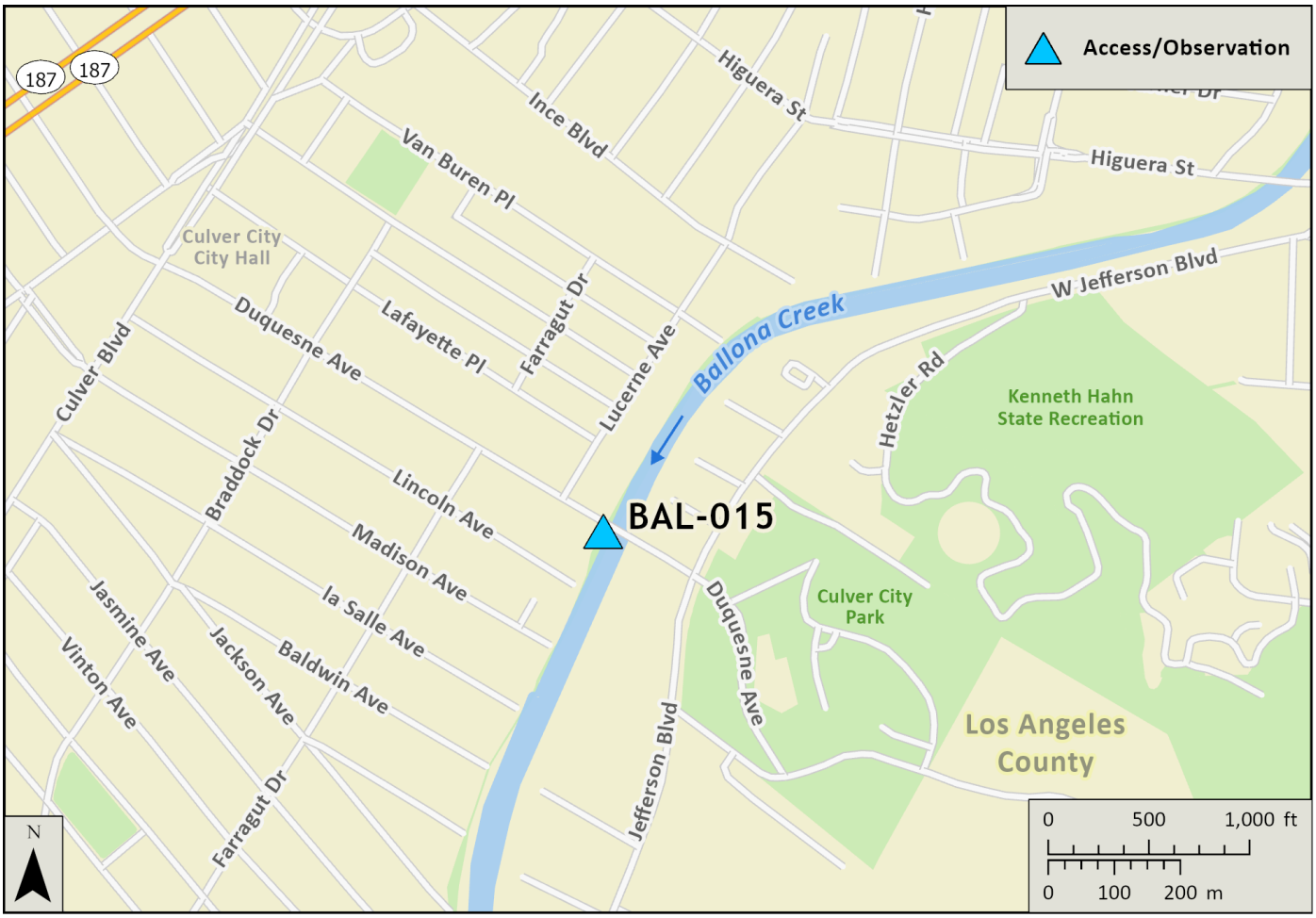
Access/Observation Site: Duquesne Ave Crossing (BAL-015)			Page 1 of 2
Driving Directions:	**From the South (Long Beach):** I-405 North to Sepulveda Blvd. toward Slauson Ave., turn right on Playa St. continue onto Overland Ave., turn right onto Jefferson Blvd. and then left onto Duquesne Ave. **From 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.		
Latitude: 34.01743 **Longitude:** -118.38948	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 4343 Duquesne Ave., Culver City, CA 90232			

Overview Street Map



Hazards, Restrictions and Advice for Responders

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

Access/Observation Site: Duquesne Ave Crossing (BAL-015)		Page 2 of 2
Site Description and Field Notes		
Site Location/Segment: BAL-LA-A-015, Sandbag Site Strategy	**Site Description and Field Notes:** 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 (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours	

Site Images

Upstream

Downstream

Entrance

RR = River Right RL = River Left

Photo Date: 7/18/2023

Access/Observation Site: Overland Ave Crossing North (BAL-020)			Page 1 of 2
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.		
Latitude: 34.0074 **Longitude:** -118.39653	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 4975 Overland Ave., Culver City, CA 90230			

Overview Street Map

Hazards, Restrictions and Advice for Responders

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

Access/Observation Site: Overland Ave Crossing North (BAL-020)		Page 2 of 2
Site Description and Field Notes		
Site Location/Segment: BAL-LA-B-005, Sandbag Site Strategy	**Site Description and Field Notes:** 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 (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours	
Site Images		
Upstream  	Downstream  	
Entrance  		
RR = River Right RL = River Left	Photo Date: 7/18/2023	

Access/Observation Site: Overland Ave Crossing South (BAL-025)			Page 1 of 2
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.		
Latitude: 34.00670 **Longitude:** -118.39607	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 4975 Overland Ave., Culver City, CA 90230			

Overview Street Map

Hazards, Restrictions and Advice for Responders

- Dangerous swift water after rainfall
- Unhoused encampments
- Steep banks
- Vehicle traffic
- Locked Gates

Access/Observation Site: Overland Ave Crossing South (BAL-025)		Page 2 of 2
Site Description and Field Notes		
Site Location/Segment: BAL-LA-B-010, Sandbag Site Strategy	**Site Description and Field Notes:** 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 (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours	

Site Images

Upstream

Downstream

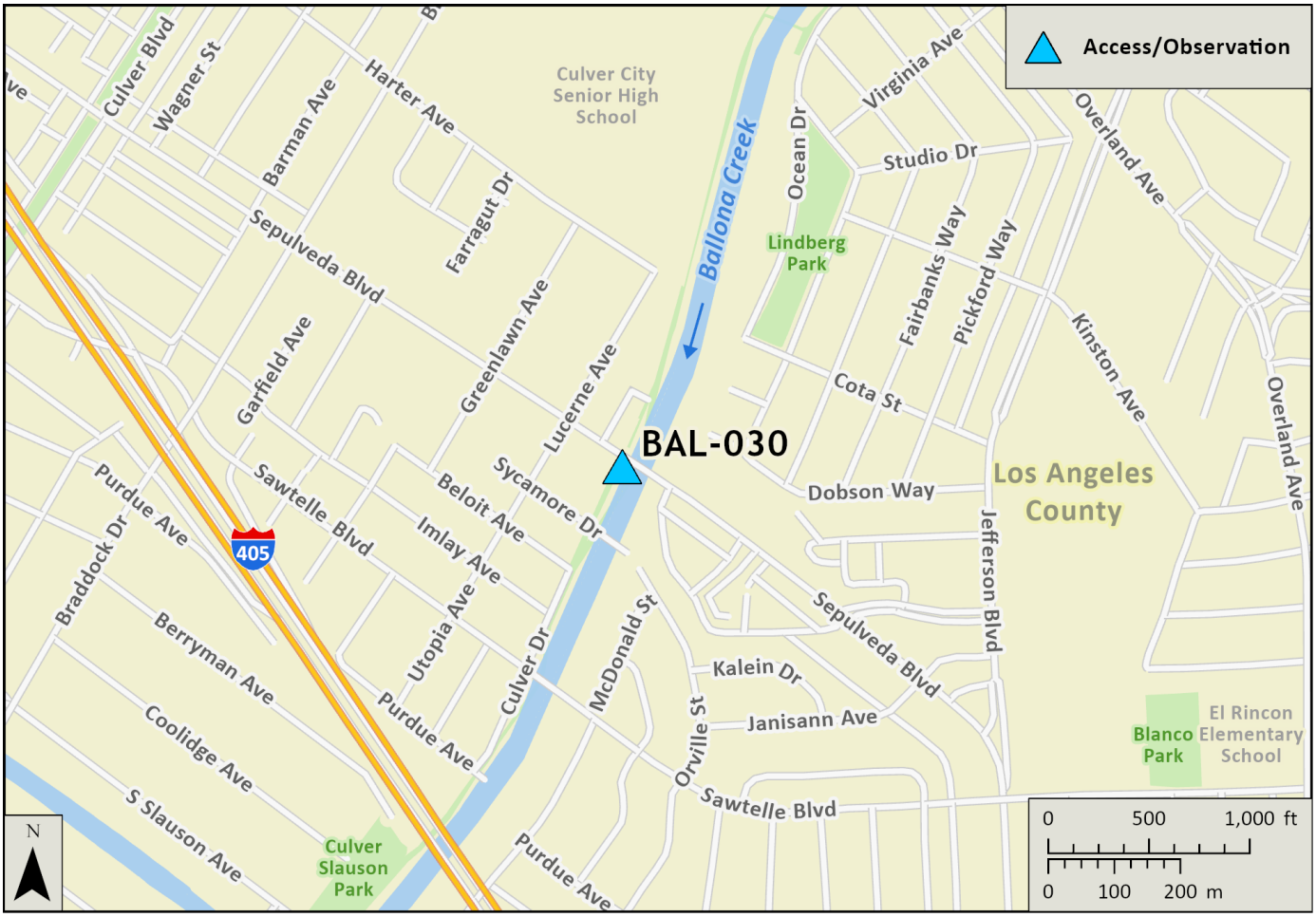
Entrance

RR = River Right RL = River Left

Photo Date: 7/18/2023

Access/Observation Site: Sepulveda Blvd Crossing (BAL-030)			Page 1 of 2
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.		
Latitude: 33.99979 **Longitude:** -118.40151	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 4929 Sepulveda Blvd, Los Angeles, CA 90230			

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swift water after rainfall
- Unhoused encampments
- Steep banks
- Vehicle, bike, and pedestrian traffic

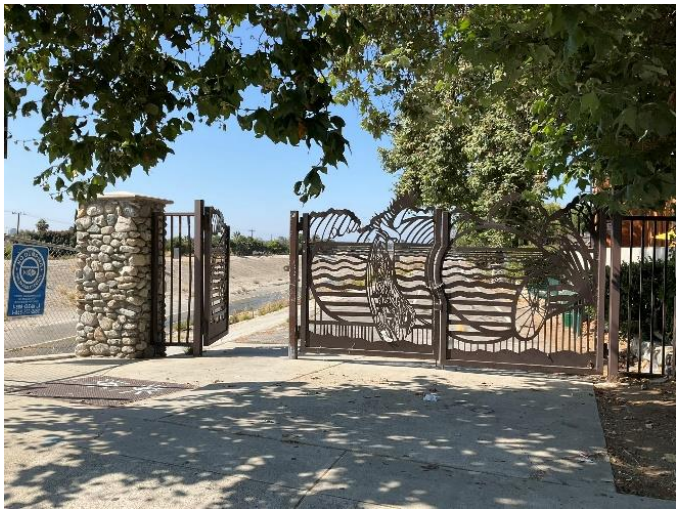
Access/Observation Site: Sepulveda Blvd Crossing (BAL-030)		Page 2 of 2
Site Description and Field Notes		
Site Location/Segment: BAL-LA-B-010, Sandbag Dam Site Strategy	**Site Description and Field Notes:** Limited staging on bike path. Observations can be made from Sepulveda Blvd. bridge. Personnel access to the channel bottom from the bike path by walking down the sloped bank.	
Site Contact/s:	LA County Public Works (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours	

Site Images

Upstream

Downstream

Entrance

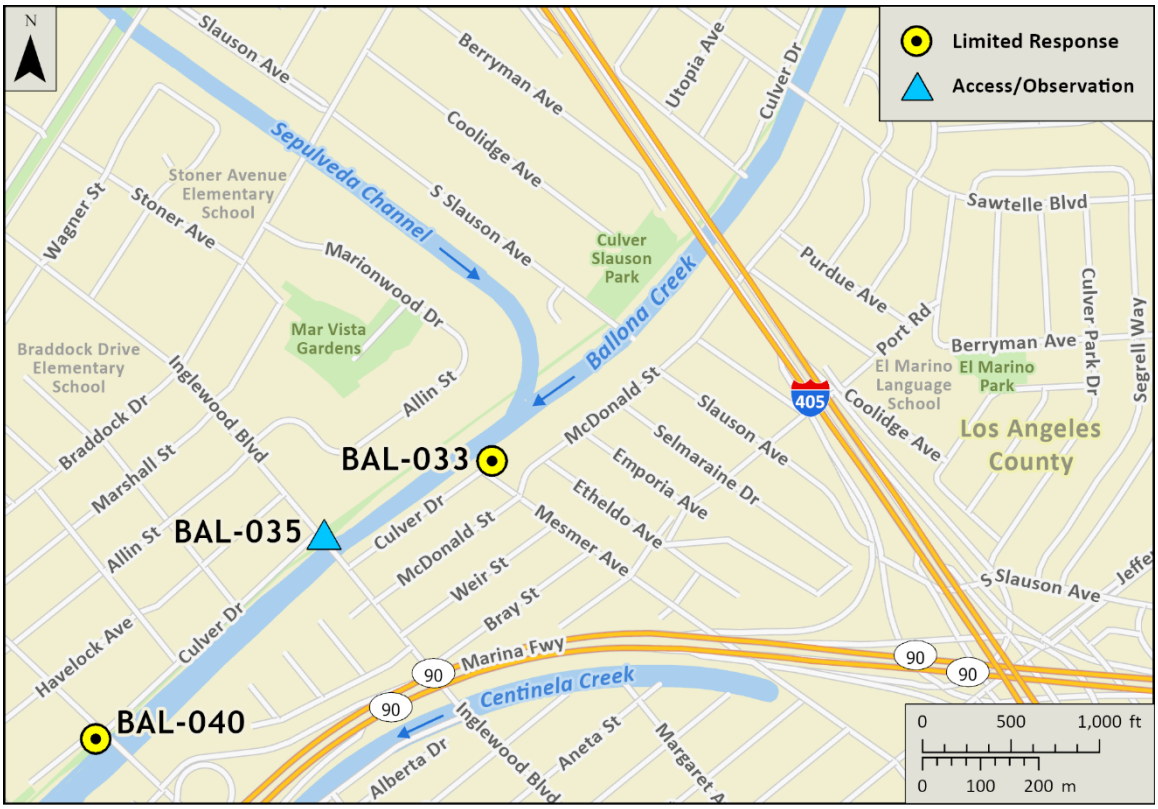


RR = River Right RL = River Left

Photo Date: 7/18/2023

Response Strategy Site: Mesmer Ave (BAL-033)			**Page 1 of 3**
Driving Directions:	**From the South (Long Beach):** I-405 North. Take the exit for Jefferson Blvd. (Exit 50B), turn left to Mesmer Ave. Turn right on Mesmer Ave. to Ballona Creek **From the North (Ventura):** US-101 South to I-405 South to Jefferson Blvd. (Exit 50A), turn right to Mesmer Ave. Turn right on Mesmer Ave. to Ballona Creek.		
Latitude: 33.59280 **Longitude:** -118.24316	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 5100 Mesmer Ave., Los Angeles, CA 90230			

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swift water after rainfall
- Unhoused encampments
- Steep banks
- Locked gate (LA County Public Works)

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

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

Site Location/Segment: BAL-LA-B-033	**Site Description and Field Notes:** Limited staging on south side of the creek within the gated entrance. Sepulveda channel outfall located to the east upstream. Personnel access to the channel bottom from the gated entrance on Mesmer Ave. and the bike path by walking down the sloped bank.			
Gradient: Low	**River Width:** 20 meters (66 feet)	**Vehicular Access:** Passenger vehicles, small trucks, and small trailers.	**Recreational Use:** N/A	**Boat Launches:** N/A
Site Contact/s:	LA County Public Works (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours			
ESI Shoreline Type:	1B Exposed, solid man-made structures; 8F Vegetated, steeply-sloping bluffs; 9B Vegetated low banks; 10B Freshwater marshes			

Site Images

Upstream

Downstream

Straight Across

Entrance

RR = River Right **RL = River Left**

Photo Date: 9/11/2023

Response Strategy Site: Mesmer Ave (BAL-033) **Page 3 of 3**

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 creek adjacent to the Sepulveda channel outfall with a minimum of 3 ft. high. Deploy boom to consist of 200 ft. of containment boom with a minimum of a 45-degree angle utilizing anchor points. Use a leader rope to deploy boom across the creek with boom attached.

Staging Area Location and Capabilities/Amenities/Waste Management: Limited on south side of the creek. Boom trucks, trailer, vacuum trucks and temporary storage tanks could use the space within the gated entrance on Mesmer Ave., but it is limited and narrow.

Response Strategy Map (overview)

Table of Response Resources

Type	Sub-Type	Size	Unit	Quantity	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 in. skirt	Feet	200	
Rope			Feet	200	For leader on boom deployment
Personnel			Crew	4	

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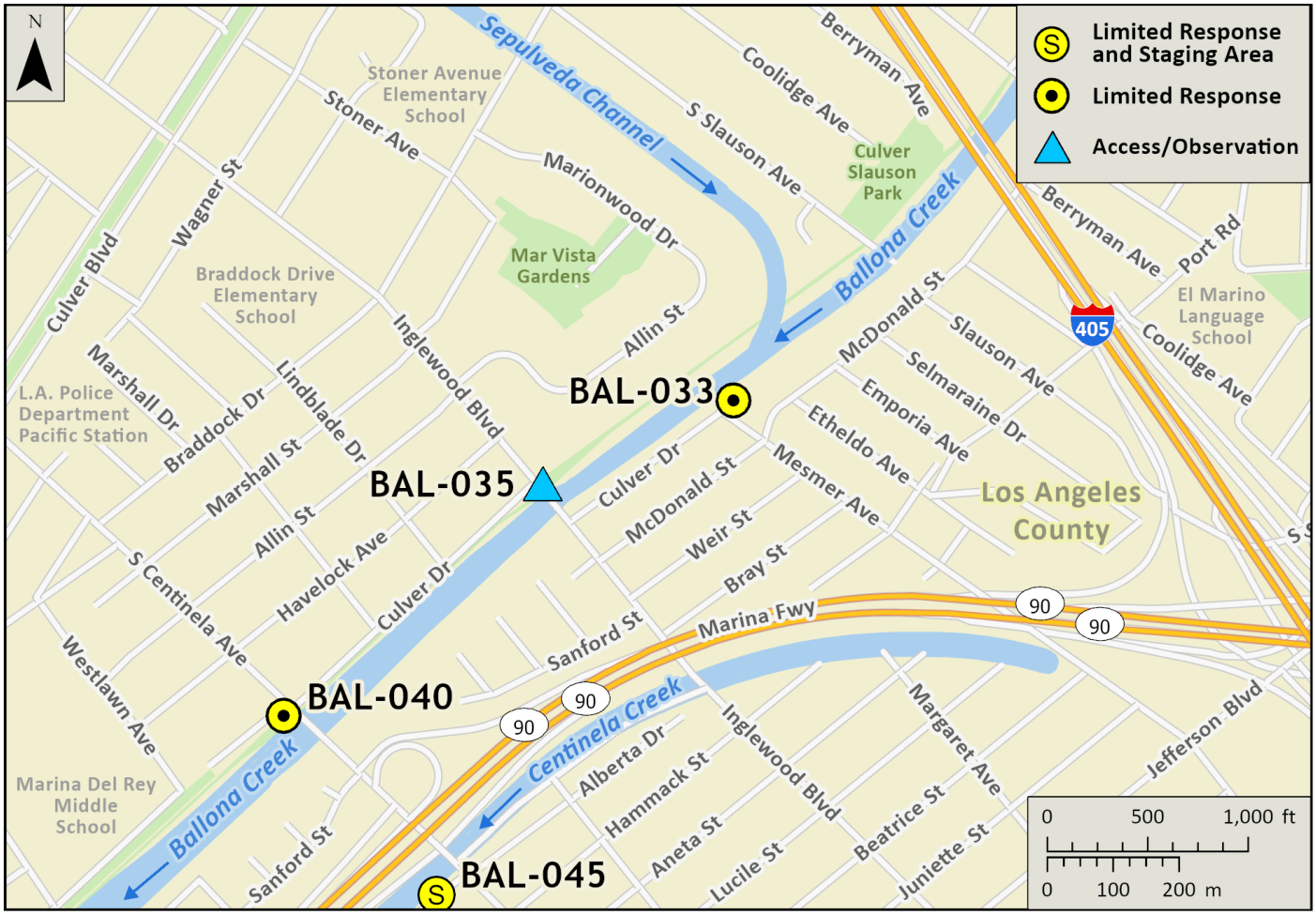
Access/Observation Site: Inglewood Blvd Crossing (BAL-035)			Page 1 of 2
Driving Directions:	**From the South (Long Beach):** I-405 North to Jefferson Blvd. Take Jefferson Blvd. south, turn right onto Inglewood Blvd. to Ballona Creek. **From the North (Ventura):** US-101 South to I-405 South. Exit Jefferson Blvd. and head south, turn right onto Inglewood Blvd. to Ballona Creek.		
Latitude: 33.99013 **Longitude:** -118.41182	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 4900 Block of Inglewood Blvd., Culver City, CA 90230			

Overview Street Map



Hazards, Restrictions and Advice for Responders

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

Access/Observation Site: Inglewood Blvd Crossing (BAL-035)		Page 2 of 2
Site Description and Field Notes		
Site Location/Segment: BAL-LA-B-015, Sandbag Dam Site Strategy	**Site Description and Field Notes:** 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 (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours	

Site Images

Upstream

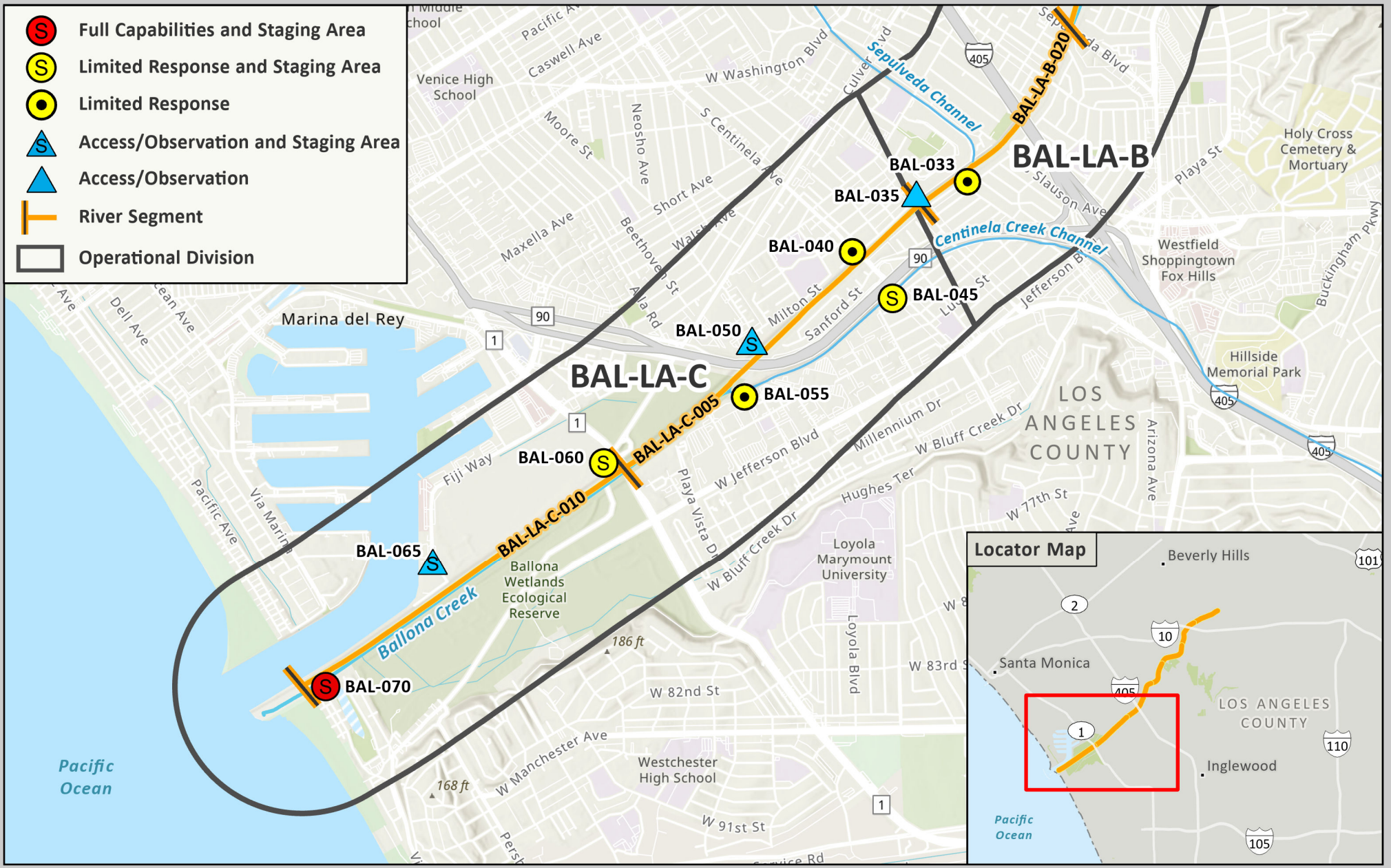
Downstream

Entrance

RR = River Right RL = River Left

Photo Date: 7/18/2023

Figure 3-4: 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: L. Studen
Date Created: 03/23/2024

Map Scale: 1:33,000
Map Coordinate System:
NAD83 California Teale Albers (m)

Ballona Creek
Geographic Response Plan
Division BAL-LA-C

0 0.5 1 mi
0 0.8 1.6 km

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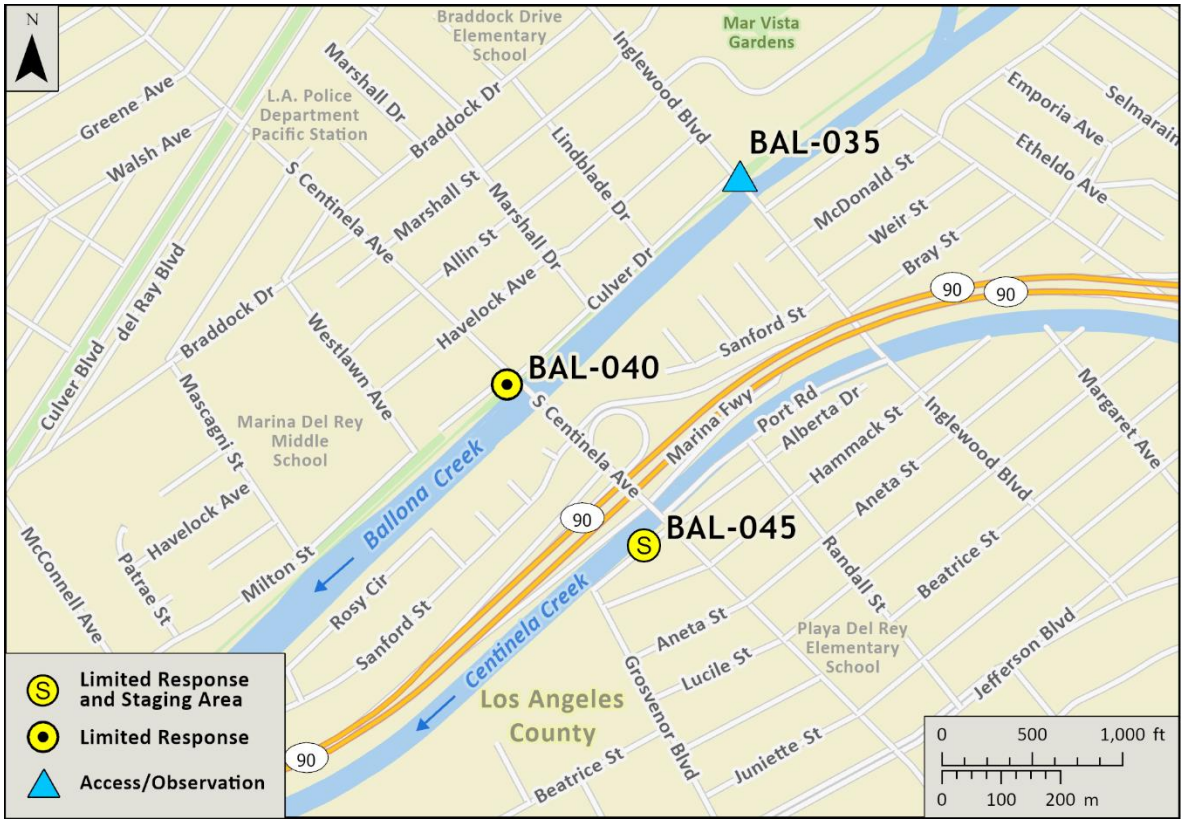
Response Strategy Site: Centinela Ave Crossing (BAL-040)			**Page 1 of 3**
Driving Directions:	**From the South (Long Beach):** I-405 North to CA-90 West toward Marina Del Rey. Take the exit for Centinela Ave., turn right to Ballona Creek. **From the North (Ventura):** US-101 South to I-405 South to CA-90 West toward Marina Del Rey. Take the exit for Centinela Ave., turn right to Ballona Creek.		
Latitude: 33.98695 **Longitude:** -118.41614	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 5000 S Centinela Ave., Los Angeles, CA 90066			

Overview Street Map



Hazards, Restrictions and Advice for Responders

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

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

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

Site Location/Segment: BAL-LA-C-005	**Site Description and Field Notes:** 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.			
Gradient: Low	**River Width:** 27 meters (89 feet)	**Vehicular Access:** Passenger vehicles, small trucks, and small trailers.	**Recreational Use:** N/A	**Boat Launches:** N/A
Site Contact/s:	LA County Public Works (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours			
ESI Shoreline Type:	1B Exposed, solid man-made structures; 8F Vegetated, steeply-sloping bluffs; 9B Vegetated low banks; 10B Freshwater marshes			

Site Images

Upstream

Downstream

Straight Across

Entrance

RR = River Right **RL = River Left**

Photo Date: 5/31/2017

Response Strategy Site: Centinela Ave Crossing (BAL-040) **Page 3 of 3**

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	Quantity	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 in. skirt	Feet	200	
Rope			Feet	200	For leader on boom deployment
Personnel			Crew	4	

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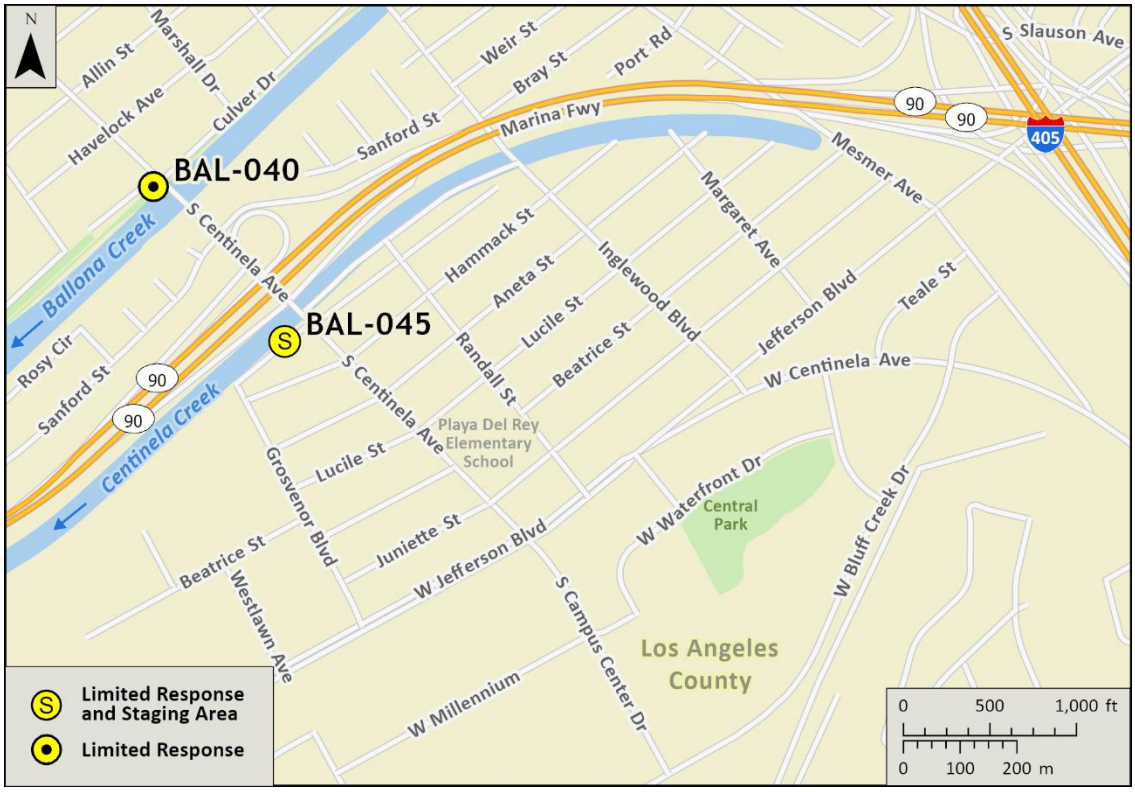
Response Strategy Site: Centinela Creek at Hammack St Alleyway (BAL-045) (S)			Page 1 of 3
Driving Directions:	**From the South (Long Beach):** I-405 North to CA-90 West toward Marina Del Rey. Exit Centinela Ave. and turn left. Turn right onto Hammack St. the alleyway is the first right. **From the North (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.		
Latitude: 33.98448 **Longitude:** -118.41368	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 12415 Hammack St., Los Angeles, CA 90066			

Overview Street Map



Hazards, Restrictions and Advice for Responders

- Dangerous swift water after rainfall
- Unhoused encampments
- 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

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.

Response Strategy Site: Centinela Creek at Hammack St Alleyway (BAL-045) (S)				Page 1 of 3
Site Description and Field Notes				
Site Location/Segment: BAL-LA-C-005	**Site Description and Field Notes:** 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.			
Gradient: Low	**River Width:** 21 meters (69 feet)	**Vehicular Access:** Passenger vehicles, small trucks, small trailers, and small equipment.	**Recreational Use:** N/A	**Boat Launches:** N/A
Site Contact/s:	LA County Public Works (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours			
ESI Shoreline Type:	1B Exposed, solid man-made structures; 9B Vegetated low banks			

Site Images

Upstream

Downstream

Straight Across

Entrance

RR = River Right RL = River Left

Photo Date: 5/31/2017

Response Strategy Site: Centinela Creek at Hammack St Alleyway (BAL-045) (S) **Page 1 of 3**

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	Quantity	Special Equipment or Comments
Sandbags					Sandbag dam minimum of 3 ft. high
Piping					For sandbag dam underflow

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Access/Observation Site: McConnell Ave (BAL-050)			Page 1 of 2
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 to Culver Blvd. and turn right onto McConnell Ave.		
Latitude: 33.98219 **Longitude:** -118.42288	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 4935 McConnell Ave., Los Angeles, CA 90066			

Overview Street Map

Hazards, Restrictions and Advice for Responders

- Dangerous swift water after rainfall
- Unhoused encampments
- Steep banks

Access/Observation Site: McConnell Ave (BAL-050)		Page 2 of 2
Site Description and Field Notes		
Site Location/Segment: BAL-LA-C-005	**Site Description and Field Notes:** 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 (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours	Richard Brody, CDFW Region 5 Ballona Wetlands Ecological Reserve (310) 455-3243

Site Images

Upstream

Downstream

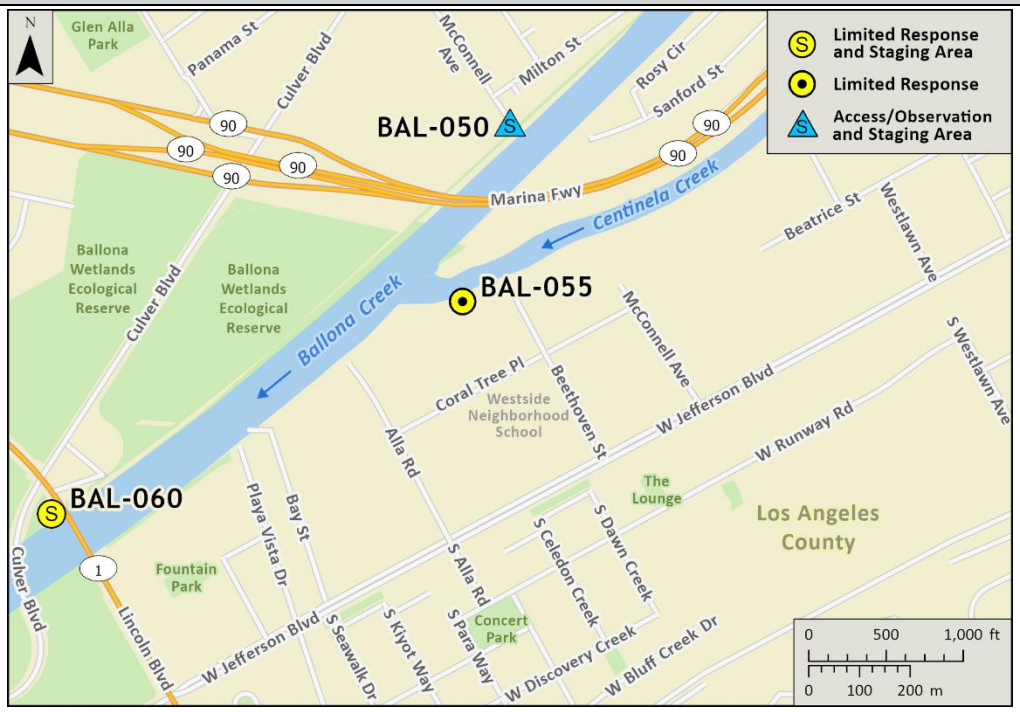
Entrance

RR = River Right **RL = River Left**

Photo Date: 5/31/2017

Response Strategy Site: Centinela Creek at Ballona Creek (BAL-055)			**Page 1 of 3**
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 Centinela Ave., turn left onto Hammack St., the alleyway is the first right.		
Latitude: 33.97901 **Longitude:** -118.42397	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 5301 Beethoven St., Los Angeles, CA 90066			

Overview Street Map



Hazards, Restrictions and Advice for Responders

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

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

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.

Response Strategy Site: Centinela Creek at Ballona Creek (BAL-055)				**Page 2 of 3**
Site Description and Field Notes				
Site Location/Segment: BAL-LA-C-005	**Site Description and Field Notes:** 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.			
Gradient: Low	**River Width:** 20 meters (66 feet)	**Vehicular Access:** Passenger vehicles, small trucks, small trailers and small equipment at Hammack St. alleyway ramp.	**Recreational Use:** N/A	**Boat Launches:** N/A
Site Contact/s:	LA County Public Works (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours		Richard Brody, CDFW Region 5 Ballona Wetlands Ecological Reserve (310) 455-3243	
ESI Shoreline Type:	1B Exposed, solid man-made structures; 7 Exposed tidal flats; 9B Vegetated low banks			

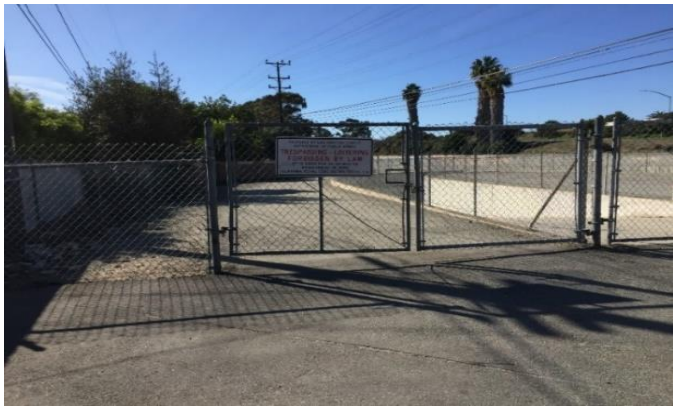
Site Images

Upstream

Downstream

Straight Across

Entrance



RR = River Right RL = River Left

Photo Date: 5/31/2017

Response Strategy Site: Centinela Creek at Ballona Creek (BAL-055) **Page 3 of 3**

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)

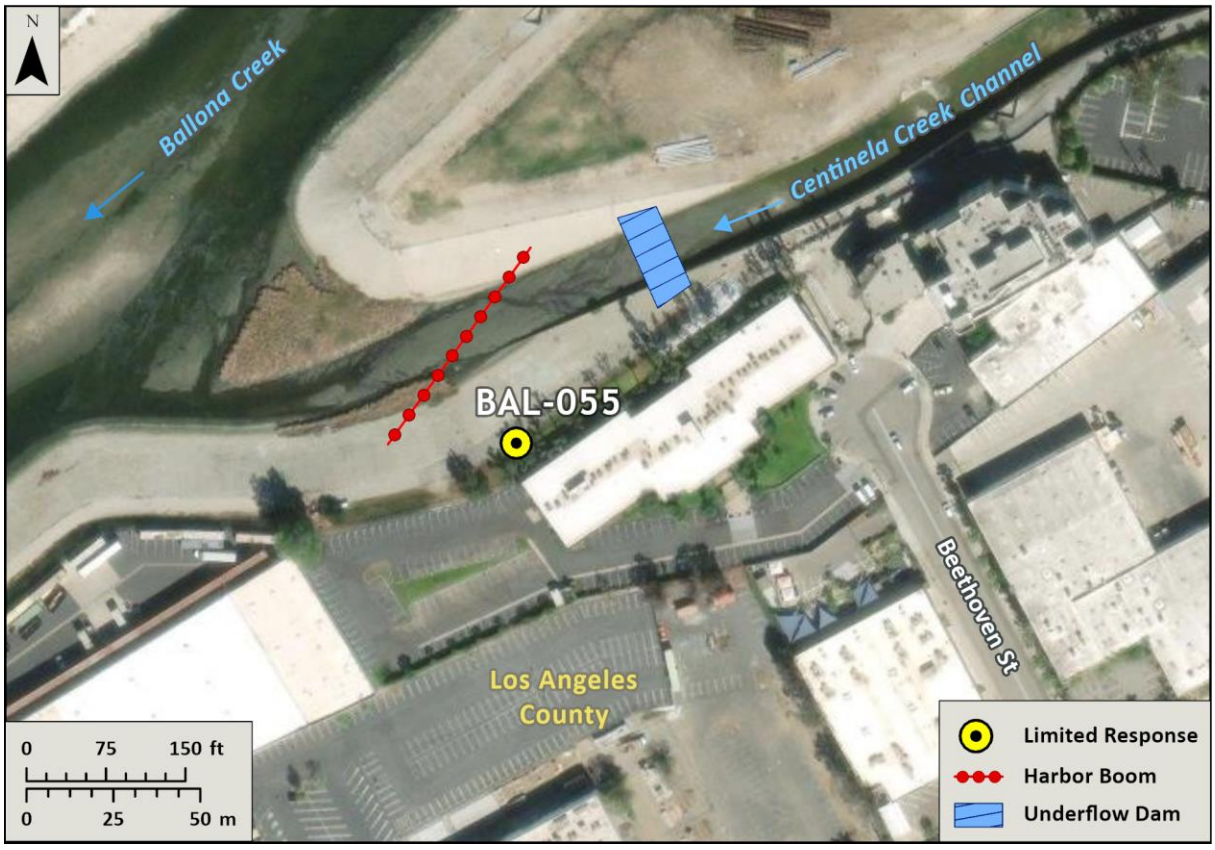


Table of Response Resources

Type	Sub-Type	Size	Unit	Quantity	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-in. skirt	Feet	150	
Rope			Feet	150	For leader on boom deployment
Stakes				2	For anchoring boom ends
Personnel			Crew	4	

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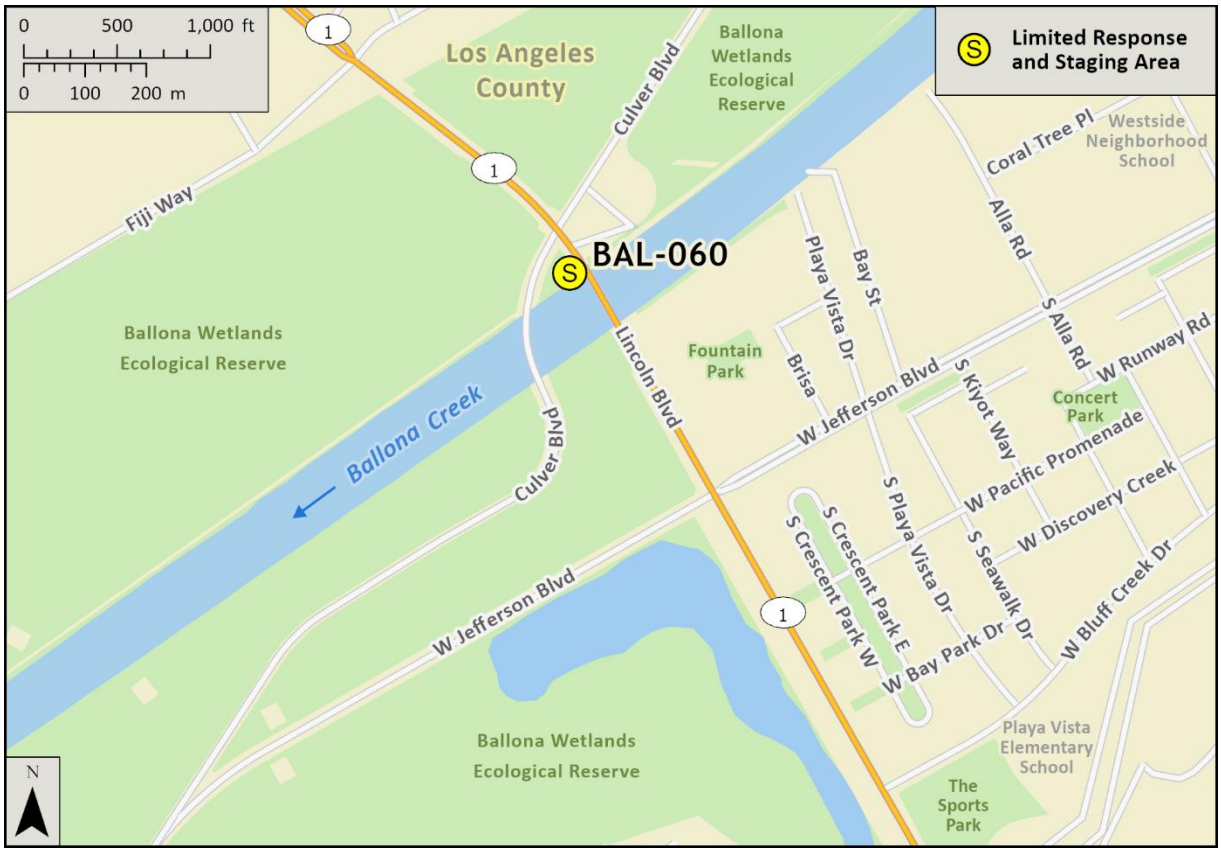
Response Strategy Site: Lincoln Blvd Crossing (BAL-060) Ⓢ			**Page 1 of 3**
Driving Directions:	**From the South (Long Beach):** I-405 North to CA-90 West turn left onto Lincoln and continue to Ballona Creek. **From the North (Ventura):** US-101 South to I-405 South to CA-90 West turn left onto Lincoln and continue to Ballona Creek.		
Latitude: 33.97534 **Longitude:** -118.43280	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 4750 Admiralty Way, Marina Del Rey, CA 90292			

Overview Street Map



Hazards, Restrictions and Advice for Responders

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

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

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

Site Location/Segment: BAL-LA-C-010	**Site Description and Field Notes:** 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.			
Gradient: Low	**River Width:** 80 meters (264 feet)	**Vehicular Access:** Passenger vehicles, small trucks, and small trailers	**Recreational Use:** N/A	**Boat Launches:** N/A
Site Contact/s:	LA County Public Works (800) 675-4357 27/7 (562) 861-0316 (626) 458-4357 After Hours		Richard Brody, CDFW Region 5 Ballona Wetlands Ecological Reserve (310) 455-3243	
ESI Shoreline Type:	1B Exposed, solid man-made structure			

Site Images

Upstream

Downstream

Straight Across

Entrance

RR = River Right **RL = River Left**

Photo Date: 3/27/2017

Response Strategy Site: Lincoln Blvd Crossing (BAL-060) (S) **Page 3 of 3**

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	Quantity	Special Equipment or Comments
Boom	Harbor	18 or 24 in. skirt	Feet	600	
Rope			Feet	600	
Personnel			Crew	4	

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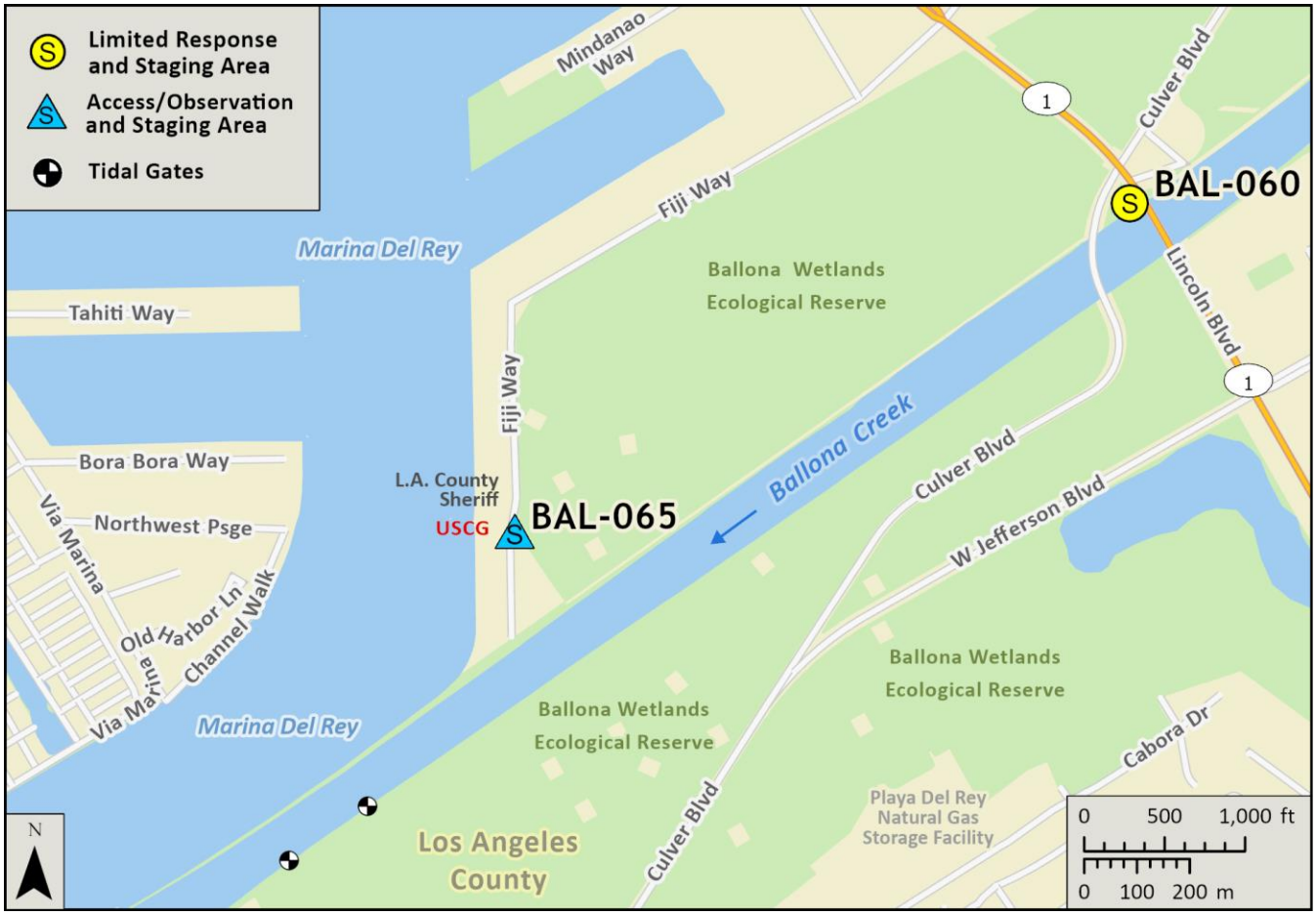
Access/Observation Site: Marvin Braude Bike Trail (BAL-065) (S)			Page 1 of 2
Driving Directions:	**From the South (Long Beach):** I-405 North to CA-90 West. Turn left onto Mindanao Way, left onto Admiralty Way, right onto Fiji Way and continue to entrance of bike path. **From the North (Ventura):** 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.		
Latitude: 33.96997 **Longitude:** -118.44553	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 13900 Fiji Way, Marina Del Rey, CA 90292			

Overview Street Map



Hazards, Restrictions and Advice for Responders

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

Access/Observation Site: Marvin Braude Bike Trail (BAL-065) (S)		Page 2 of 2
Site Description and Field Notes		
Site Location/Segment: BAL-LA-C-010	**Site Description and Field Notes:** 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 dispatch (Ballona Wetland tidal gates): (562) 861-0316 (626) 458-4357*	City of Los Angeles Recreation and Parks (Del Rey Lagoon tidal gates): Angel Mendoza (818) 441-2874* James Sipotz (213) 572-9917*
	Richard Brody, CDFW Region 5 Ballona Wetlands Ecological Reserve (310) 455-3243	LA County Public Works (800) 675-4357 27/7 (626) 458-4357 After Hours

Site Images

Upstream, Photo Date: 1/21/2018

Downstream, Photo Date: 3/27/2017

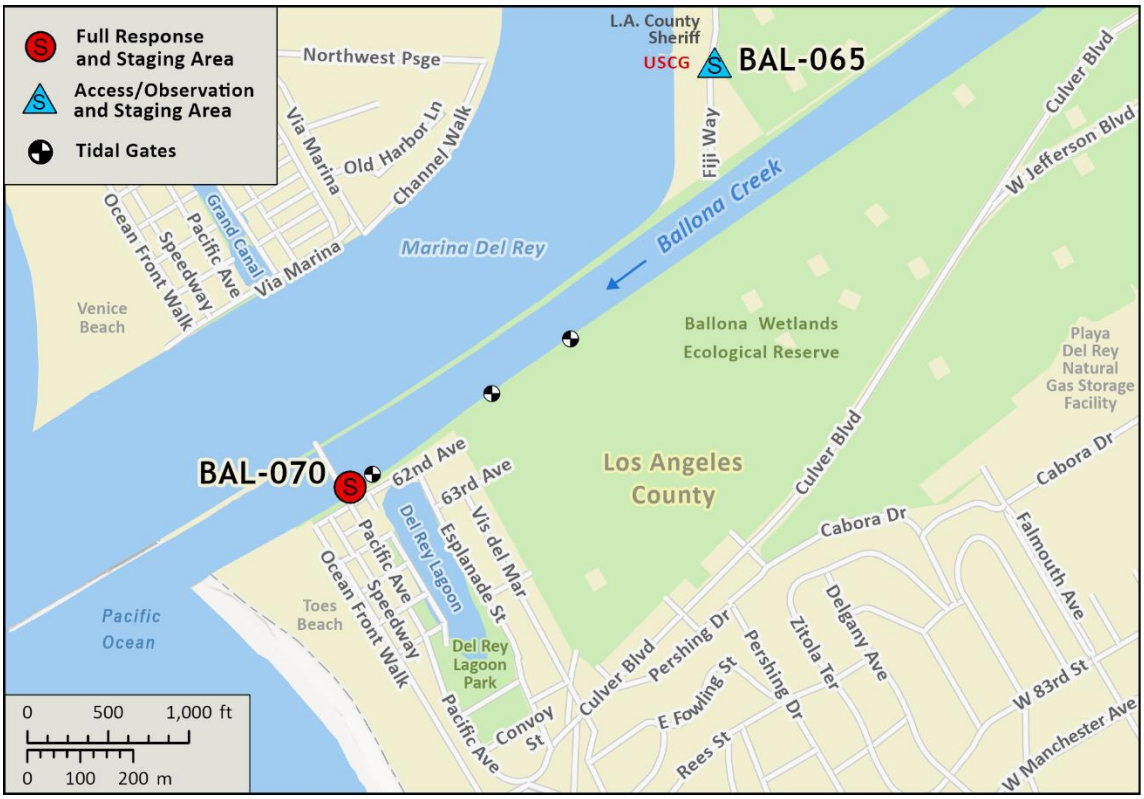
Entrance

RR = River Right RL = River Left

Photo Date: See Above

Response Strategy Site: Pacific Ave Crossing South (BAL-070)			Page 1 of 3
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.		
Latitude: 33.96281 **Longitude:** -118.45301	**Highway Postmile:** N/A	**Railroad Milepost:** N/A	**Cell Service:** Yes
Nearest Address: 6209 Pacific Ave., Playa Del Rey, CA 90293			

Overview Street Map



Hazards, Restrictions and Advice for Responders

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

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, Ballona Wetlands Ecological Reserve

Economic: UCLA Marina Aquatic Center

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

Site Location/Segment: BAL-LA-C-010	**Site Description and Field Notes:** 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. Staging available in parking lots.			
Gradient: Low	**River Width:** 80 meters (264 feet)	**Vehicular Access:** Passenger vehicles, large trucks, large trailers, and heavy equipment.	**Recreational Use:** N/A	**Boat Launches:** Public boat launch located nearby at 13477 Fiji Way, Marina Del Rey Harbor.
Site Contact/s: LA County Public Works (800) 675-4357, 24/7 (626) 458-4357 (After Hours)	LA County dispatch (Ballona Wetland tidal gates): (626) 458-4357, (562) 861-0316 CDFW, Region 5, Ballona Wetlands Ecological Reserve, Richard Brody (310) 455-3243		City of Los Angeles Recreation and Parks (Del Rey Lagoon tidal gates): Angel Mendoza (818) 441-2874* James Sipotz (213) 572-9917*	
ESI Shoreline Type:	1B Exposed, solid man-made structures; 6B Riprap			

Site Images

Upstream, Photo Date: 03/27/2017

Downstream, Photo Date: 03/27/2017

Straight Across, Photo Date: 12/22/2017

Entrance

RR = River Right **RL = River Left**

Photo Date: See Above

Response Strategy Site: Pacific Ave Crossing South (BAL-070) Ⓢ **Page 3 of 3**

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	Quantity	Special Equipment or Comments
Boom	Harbor	18, 24-in. skirt	Feet	600	
Rope			Feet	600	For leader on boom deployment
Vessel w/ operator	Skiff	18 to 24	Feet	1	
Personnel			Crew	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, tribal nation, cultural and historic resources-at-risk in the Ballona Creek Geographic Response Plan (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, Oiled Wildlife Care Network (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 nation and cultural resources, historic properties, and tribal nation representatives.

The information provided in this chapter can be used for:

- Assisting the Environmental Unit (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, Unified Command (UC), 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 Sensitive Wildlife, Fisheries, Plants and 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; United States Fish and Wildlife Service (USFWS) designated wetland habitats; commercial and recreational fisheries; and protected lands. Table 4-1a-e 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, high species concentrations, rookeries and blooming periods for special plant species. The California Department of Fish and Wildlife (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 4-1a below. Information on the species and habitats listed in Table 4-1a-e 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 EU 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, whenever possible.

Wetlands

Table 4-1b 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 U.S. Fish and Wildlife Service is the principal federal agency tasked with providing information to the public on the extent and status of the nation's wetland and deepwater habitats, as well as changes to these habitats over time.

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. Protected wetlands provide stopover and wintering habitat for more than four billion birds from Canada as well as breeding habitat for almost five billion migratory birds enroute to the tropics. More than 50 percent of threatened and endangered species rely on wetlands and associated aquatic habitat. Wetlands also provide shelter and vital nursery habitat for many species of fish.

For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes (plants specifically adapted to live in wetlands); (2) the substrate is predominantly undrained hydric (wetland) soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year.

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 4-1a: Resources-At-Risk Matrix – Special Status Species and Plants

Taxon	Species	Listing Status^	Migratory/ Resident	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Habitat Description
Birds	Belding's Savannah Sparrow	SE	Resident				Breeding/Nesting									Coastal saltmarsh; dense low vegetation; frequents pickleweed in tidal situations or non-tidal alkaline flats nearby.
	Burrowing Owl	SC	Resident			Breeding/Nesting										Heavily grazed or low grassland or desert vegetation with available burrows.
	California Least Tern	SE, FP, FE	Migratory, present in summer months				Breeding/Nesting									Marine and estuarine shores; beaches and exposed tidal flats.
	Coastal California Gnatcatcher	SSC, FT	Resident		Breeding/Nesting											Low, dense coastal scrub habitat in arid washes, on mesas, and on slopes of coastal hills.
	Least Bell's Vireo	SE, FE	Migratory, present in summer months				Breeding/Nesting									Low, dense riparian growth along water or along dry parts of intermittent streams.
	Least Bittern	SE, FP, FE	Summer resident, may overwinter					Breeding/Nesting								Dense emergent wetlands. Bulrush, cattail and salt cedar along immediate edge of fresh, brackish, and occasional saltwater waterways.
	Light-footed Ridgway's Rail	SE, FP, FE	Resident			Breeding/Nesting										Coastal marshes with active tidal flow and dense pickleweed and cordgrass thickets.
Mammals	Pallid Bat	SSC	Resident	Hibernation			Young Born/Maternity Colony								Hibernation	Intermediate to large-tree stages of coniferous forests and deciduous-riparian habitats with high canopy closure.
	South Coast Marsh Vole	SSC	Resident	Breeding/Nesting												Tidal marshes in Los Angeles, Orange and Ventura counties.
	Western Mastiff Bat	SSC	Resident				Young Born/Maternity Colony									Open areas with abundant roost locations in crevices of rock outcrops and buildings.
Fish	N/A															
Amphibians	N/A															
Reptiles	Southern California Legless Lizard	SSC	Resident			Breeding/Nesting						Young Born				Sparsely vegetated areas of beach dunes; moist warm loose soil with plant cover.
Invertebrates	El Segundo Blue Butterfly	FE	Resident							Adult Butterfly Stage						Native coastal dune vegetation and riparian thickets that intergrade with marsh vegetation. Intimately tied to coastal buckwheat.
Plants**	Nuttall's Scrub Oak	1B.1	Perennial Evergreen Shrub		Blooming											Chaparral and coastal sage scrub.
	Orcutt's Yellow Pincushion	1B.1	Annual Herb	Blooming												Coastal bluff scrub and coastal dunes.
	Southern Tarplant	1B.2	Annual Herb						Blooming							Valley grassland and freshwater wetlands.

^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

*CWHR habitat classifications and any USFWS critical habitat designation

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)

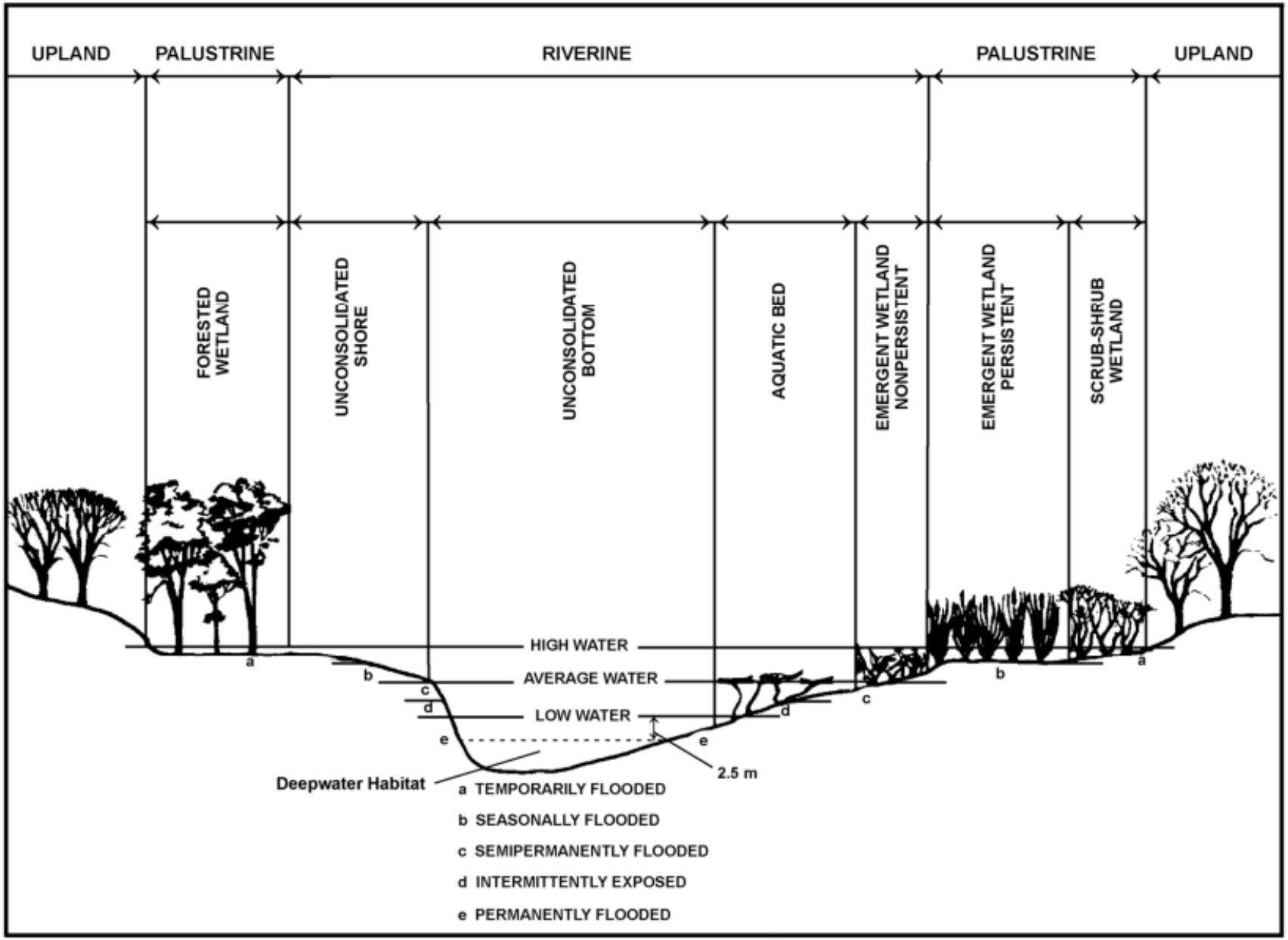
Table 4-1b: – USFWS Designated Wetlands

USFWS Designated Wetlands		
Wetland Type - System (Riverine assumed present)	**Class**	**Water Regimes**
Ballona Creek, Sepulveda Channel and Centinela Creek		
Palustrine: Freshwater Forested/Shrub Wetland	Scrub Shrub	Seasonally Flooded
Palustrine: Freshwater Emergent Wetland	Emergent, Persistent	Seasonally Flooded-Tidal
Estuarine: Estuarine and Marine Deepwater	Unconsolidated Bottom	Subtidal
Marine: Estuarine and Marine Deepwater, Subtidal	Unconsolidated Bottom	Subtidal
Ballona Wetlands Ecological Reserve		
Palustrine: Freshwater Emergent Wetland	Emergent, Persistent	Temporary Flooded; Seasonally Flooded; Seasonally Flooded-Tidal; Seasonally Saturated
Palustrine: Freshwater Forested/Shrub Wetland	Scrub Shrub	Temporary Flooded; Seasonally Flooded-Tidal; Temporary Flooded-Tidal
Palustrine: Freshwater Forested/Shrub Wetland	Forested	Temporary Flooded
Palustrine: Freshwater Pond	Unconsolidated Bottom	Permanently Flooded; Semi-Permanently Flooded
Estuarine: Estuarine and Marine Wetland, Intertidal	Emergent, Persistent; Scrub Shrub; Unconsolidated Shore	Irregularly Flooded; Regularly Flooded; Irregularly Exposed
Del Rey Lagoon		
Palustrine: Freshwater Pond	Unconsolidated Bottom	Semi-Permanently Flooded

Source: https://www.fws.gov/wetlands/data/mapper.html

Source: Classification of Wetlands and Deepwater Habitats of the US

Table 4-1c: Resources-At-Risk Matrix – Features and Examples of Habitats in the Riverine System



Source: Classification of Wetlands and Deepwater Habitats of the US

Table 4-1d: Resources-At-Risk Matrix – Commercial and Recreational Fisheries

Commercial and Recreational Fisheries (Public Health Fisheries Closure)		
Common Name	**Contact Information**	**Seasonal and Special Considerations, Notes**
California Halibut	CDFW Fishing Regulations	Annual fishing season. 5 fish bag limit. Minimum 22 inches in length.
Diamond Turbot	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
Spotted Turbot	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
Hornyhead Turbot	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
Fantail Sole	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
Kelp Bass	CDFW Fishing Regulations	Annual fishing season. Must be 14 inches in length. Bag limit 5 fish.
White Sea Bass	CDFW Fishing Regulations	Annual fishing season. Must be 28 inches in length. Bag limit 3 fish except that only 1 fish may be taken in waters south of Point Conception between March 15 and June 15.
Barred Sea Bass	CDFW Fishing Regulations	Annual fishing season. Must be 14 inches in length. Bag limit 5 fish.
Striped Mullet	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
White Surfperch	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
Shiner Perch	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
Zebra Perch	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
Topsmelt	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)

Common Name	Contact Information	Seasonal and Special Considerations, Notes
Jacksmelt	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
Opaleye	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
Sargo	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
Spotted Kelpfish	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
White Croaker	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
Yellowfin Croaker	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
Queenfish	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
California Corbina	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)
Bat Ray	CDFW Fishing Regulations	CDFW General Ocean Fishing Regulations. Take General (T14 CCR §27.56), Limit (T14 CCR §27.60)

Table 4-1e: Resources-At-Risk Matrix – Designated or Protected Lands

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.

Wildlife Response Plan

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

The Wildlife Response Plan (WRP) for Oil Spills in California (OSPR 2016) details the purposes, goals, objectives, responsibilities, and structure of the Wildlife Branch within the Incident Command System (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 (WB) within the Operations Section is to provide coordinated, immediate, and effective protection, rescue, rehabilitation, and minimization of risk of injury to wildlife and habitat during oil spills. The principal objectives during a spill response are to:

- Protect wildlife and habitats from contamination.
- Minimize injuries to wildlife and habitats from the spilled oil and/or response actions.
- Provide best achievable rescue and care for oiled and 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 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.

To ensure these objectives are achieved with maximum efficiency per ICS, the Wildlife Branch Director (WBD) coordinates and manages the activities of all personnel in the WB who fall under the authority of the Unified Command (UC) during spill response. These include federal, state, and local agencies along with commercial and non-profit organizations performing wildlife objectives.

California Department of Fish and Wildlife (CDFW) Office of Spill Prevention and Response (OSPR) staff will assume the role of WBD during a spill response. This is a natural consequence of the pivotal position of OSPR because they are the lead state trustee agency for California's fish and wildlife, they have formal agreements and permits in place with other agencies, and they have the needed expertise, training and experience. Within the WB structure for California, there are five Groups who report to the WBD:

- Wildlife Reconnaissance Group (aerial, ground, and on-water)
- Wildlife Hazing Group (deters wildlife from oiled areas)
- Wildlife Recovery Group (search and collection, live and dead)
- Wildlife Field Stabilization (initial first aid prior to transport)
- Wildlife Care and Processing Group (rehabilitation and logging in)

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 WB 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, year-round.

Wildlife Avoidance Measures

Avoidance measures may be recommended by the WBD (Operations Section) or EU (Planning Section) for the purpose of avoiding or minimizing impacts to wildlife during an oil spill response. Common measures include exclusion zones or placing limits on ingress/egress routes, unnecessary disturbance of sensitive habitat areas, limitations on low altitude flights (drones or aircraft), limitations on night operations, and others. Such measures 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.

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 University of California Davis. OWCN personnel fill critical supervisory and staffing roles throughout the WB. During an oil spill, OSPR activates and directs activities of the OWCN within the WB. The OWCN maintains a corps of veterinarians, paid staff, and professionally trained volunteers. The OWCN comprises more than 45 rehabilitation, academic, and private non-profit organizations that 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 https://owcn.vetmed.ucdavis.edu/.

4.4 Human Health and Safety Sites and Economic Resources Susceptible to Oiling

The primary purpose of this section is to identify and incorporate into emergency oil spill response planning the specific resources subject to impacts of the highest consequence if not protected (e.g., contacts notified, sites boomed, access closed). This section identifies inland waterway infrastructure essential to human health and safety, which will be the first priority for response during any oil spill. Also identified in this section are economic resources that are susceptible to impacts from an inland oil spill. Due to limitations of time, personnel, and the availability of information, not all resources of significant economic value and susceptibility to oil spills are identified in the GRP. The list of human health and safety resources, critical infrastructure, and economic sites and their maintenance are dependent upon input from state and local agencies, and their content will vary by GRP. Response planners recognize that inland waterway resources that are deemed economically sensitive can have environmental, cultural, or historical importance as well, such as parks or important fishing

areas. In these cases, a higher environmental ranking would be used to delineate response planning. Therefore, many of those resources are not captured within the List of Economic Resources Susceptible to Oiling. Instead, the GRP provides contact information for the California Historical Resources Information System (CHRIS) centers, the Native American Heritage Commission (NAHC) and local tribal nation representatives in section 4.5 below. The listing of economic resources susceptible to oiling in this plan is provided to assist Liaison Officers and other responders with contact information that may be useful during the early stages of a response before Subject Matter Experts (SMEs) and local Area Representatives (AREPs) are available to assist.

Lists of economic resources are not intended to be exhaustive and may include various types of sites and resources depending on the specific features of each GRP. Regardless of inclusion in the List of Economic Resources Susceptible to Oiling, any entity may submit a third-party claim for damages and costs incurred due to specific oil spill impacts to these resources. Additionally, some businesses, as well as local government offices or departments, may have access to privately owned or contracted response equipment and resources that can be deployed at these locations. It is encouraged that parties with jurisdictional authority over their economic resources arrange for their protection and/or file a third-party claim for impacts.

Human Health and Safety Resources plus Critical Infrastructure

Inland resources and structures that are essential to public health and safety, such as drinking water intakes and emergency response facilities, will receive first priority protection during oil spill response operations. This GRP provides contact information for a defined list of human health and safety resources and critical infrastructure, which will facilitate initial notifications and protection considerations. These are not exhaustive lists, more resources may be considered on a spill-specific basis, and some are not included on maps or in plans due to security issues (e.g., power plant intakes). Ultimately, public entities, like water supply and health agencies, are tasked with ensuring the protection of human health and safety.

Examples of resources or critical infrastructure that would receive a first priority response (because of human health and safety concerns) include:

- Drinking water intakes
- Dams
- Power plant intakes
- Wastewater treatment facility intakes
- Groundwater replenishment
- Other health/safety intakes
- First responders on water facilities

Economic Resources Susceptible to Oiling

Per the federal Oil Pollution Act of 1990, economic resources are categorically designated as the third priority for dedication of oil spill response resources, following human health and safety (including critical infrastructure) and environmental resources. Economic resources that have a greater potential for long-term high consequence impacts receive a higher priority for emergency

response and are captured in these lists. Protection of economic resources under the direction of the UC may occur when response equipment, personnel resources or significant extenuating factors dictate adaptations in a response's priorities. Economic resources susceptible to oiling are listed in Table 4-2 and may include facilities, businesses, or other resources that directly use inland waters to support their economic activity and are at risk of long-term, high consequence impacts due to oiling.

Examples of economic resources that could be captured in the List of Economic Resources Susceptible to Oiling include:

- Aquaculture/fish hatchery facilities
- Tide gates
- Public marinas
- State, county, and city parks and beaches, as appropriate

Economic resources susceptible to oiling with locations and details (excluding sites that have security concerns, e.g., power plant intake locations) can also be found in the NOAA Environmental Response Management Application (ERMA or https://erma.noaa.gov/southwest/erma.html).

Table 4-2: Resources-At-Risk - Economic Resources Susceptible to Oiling

Name	Agency/ Company	Contact Info.	Phone
Drinking Water, Power Plant, Wastewater Treatment Facility Intakes			
N/A			
Dams and Hydroelectric Facilities			
N/A			
Tide Gates, Aquaculture/Fish Hatcheries			
Ballona Wetlands Tidal Gate	Los Angeles County	Playa Del Rey, CA 90293	(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) 572-9917
Public Marinas, City/County/State Parks and Beaches			
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
Del Rey Lagoon	City of Los Angeles, Dept. of Recreation and Parks	6660 Esplanade Place, Playa Del Rey, CA 90293	(310) 836-1040
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
Dockweiler Youth Center	Los Angeles County Dept. of Beaches and Harbors	12505 Vista Del Mar, Playa Del Rey, CA 90293	(310) 726-4128
First Responder On-Water Facilities, Other Health and Safety Intakes			
LA County Harbor Patrol, Marina Del Rey Sheriff Station	Los Angeles County Sheriff's Department	13851 Fiji Way, Marina Del Rey, CA 90292	(310) 482-6000

4.5 Tribal Nation and Cultural Resources and Historic Properties at Risk

Cultural and historic resources are reported to be present within this GRP area. Due to the confidential 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 impact cultural and historic sensitive sites, the South Central Coastal Information Center (Los Angeles, Orange, San Bernardino, Ventura Counties) under CHRIS, and the NAHC - Sacred Lands File should be contacted to determine presence/absence of these resources as soon as possible if disturbing any soil or sediment during a response action or addressing contamination on potentially historic structures. As part of their National Historic Preservation Act, Section 106 responsibilities, the United States Coast Guard (USCG) or United States Environmental Protection Agency (USEPA) Federal On-Scene Coordinator (FOSC) may hire an Historic Properties Specialist (HPS) to help identify the location of these sensitive resources, sign-off that cleanup operations are unlikely to impact these resources, and/or assign resources to monitor cleanup operations if there may be potential impacts. Table 4-3 lists contact information for the appropriate CHRIS Information Center for the GRP area.

Tribal Nation Notification

Oil spills which occur on or near federally recognized tribal nation 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 California 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 NAHC for the purposes of Chapter 905 of the Statutes of 2004." A notification call will be placed by the Tribal Liaison to the NAHC. When it is determined that an oil spill has the potential to impact cultural resources, the tribal nation representatives listed in Table 4-3, provided by NAHC, will be contacted by the Tribal Liaison and invited to participate in the response for the purpose of cultural resource consideration.

The 1997 Programmatic Agreement ('97 PA) under the National Oil and Hazardous Substances Pollution Contingency Plan provides an alternative process to ensure appropriate consideration of historic properties with the meaning and compliance of Section 106 of the National Historic Preservation Act (NHPA) during emergency response to a release or spill. Tribal nation consultation occurs when a federal agency project or effort may affect historic properties that are either located on tribal nation lands or when any federally recognized Native American tribe attaches religious or cultural significance to the historic property, regardless of the property's location. When an oil spill occurs, the federal agency or a designee (e.g., Tribal Liaison) must notify appropriate Native American tribes of the undertaking and provide those tribes the opportunity to consult, should they wish to do so.

In the absence of an FOSC, the State On-Scene Coordinator (SOSC) or a designee will ensure appropriate notification of and coordination with tribes to the extent practicable.

After the UC is established, the HPS will coordinate with the Tribal Liaison and EU on cultural and historic resources-at-risk concerns and necessary signoffs. Procedures for managing the discovery of human remains and cultural and historic resources can be found in Section 9 of the Geographic Response Plan Companion Manual (GRP CM).

Table 4-3: Resources-At-Risk Matrix – Tribal Nation, 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 Nation Resources (State Agency)		
Native American Heritage Commission	1550 Harbor Blvd., Suite 100, West Sacramento, CA nahc@nahc.ca.gov with cc to NAHC Staff Below:	(916) 373-3710
Andrew Green	Andrew.Green@nahc.ca.gov	(916) 373-3710
Cody Champagne	Cody.Champagne@nahc.ca.gov	(916) 373-3710
CDFW OSPR Tribal Liaison		
Cindy Murphy	Cindy.Murphy@wildlife.ca.gov	(916) 616-4515
CDFW Tribal Liaison		
Sarah Fonseca	Sarah.Fonseca@wildlife.ca.gov Tribal.Liaison@wildlife.ca.gov	(916) 902-9000

Local Tribal Nation Contact Information				
Tribal Nation	**Contact Name and Title**	**Address**	**Email**	**Phone**
Soboba Band of Luiseno Indians	Joseph Ontiveros, Tribal Historic Preservation Officer	P.O. Box 487 San Jacinto, CA, 92581	jontiveros@soboba-nsn.gov	(951) 663-5279
Soboba Band of Luiseno Indians	Jessica Valdez, Cultural Resource Specialist	P.O. Box 487 San Jacinto, CA, 92583	jvaldez@soboba-nsn.gov	(951) 663-6261
Gabrieleno Band of Mission Indians - Kizh Nation	Christina Swindall Martinez, Secretary	P.O. Box 393 Covina, CA, 91723	admin@gabrielenoindians.org	(844) 390-0787
Gabrieleno Band of Mission Indians - Kizh Nation	Andrew Salas, Chairperson	P.O. Box 393 Covina, CA, 91723	admin@gabrielenoindians.org	(844) 390-0787
Gabrieleno/Tongva San Gabriel Band of Mission Indians	Anthony Morales, Chairperson	P.O. Box 693 San Gabriel, CA, 91778	GTTribalcouncil@aol.com	(626) 483-3564

Local Tribal Nation Contact Information (continued)				
Tribal Nation	**Contact Name and Title**	**Address**	**Email**	**Phone**
Gabrielino /Tongva Nation	Sandonne Goad, Chairperson	106 1/2 Judge John Aiso St., #231 Los Angeles, CA, 90012	sgoad@gabrielino-tongva.com	(951) 807-0479
Gabrielino Tongva Indians of California Tribal Council	Robert Dorame, Chairperson	P.O. Box 490 Bellflower, CA, 90707	gtongva@gmail.com	(562) 761-6417
Gabrielino Tongva Indians of California Tribal Council	Christina Conley, Cultural Resource Administrator	P.O. Box 941078 Simi Valley, CA, 93094	christina.marsden@alumni.usc.edu	(626) 407-8761
Gabrielino-Tongva Tribe	Charles Alvarez, Chairperson	23454 Vanowen Street West Hills, CA, 91307	Calvarez1@gabrielinotribe.org	(805) 317-1406
Gabrielino-Tongva Tribe	Sam Dunlap, Cultural Resource Director	P.O. Box 3919 Seal Beach, CA, 90740	tongvatcr@gmail.com	(909) 262-9351

Appendix A
GRP Development and 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, tribal nations, and environmental NGO representatives:

Federal Representatives
US Environmental Protection Agency, Region 9 and 10
USDA Forest Service
US Department of the Interior

State Representatives
California Department of Fish and Wildlife, Region 5
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

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 Channel, 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 a now-defunct railroad line in the late 1800s. The first jetties were constructed in 1938 (CDFW Region 5). 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. 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"). It is 250 feet wide, with a corridor width of 320 feet (including levee slopes). The Ballona Reserve includes degraded wetlands and a freshwater marsh, which was a compensatory mitigation project for neighboring residential development (CDFW Region 5).

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. 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. Now, the urbanized portions of the watershed drain to Ballona Creek and its tributaries via streets and storm drains. During a storm event, Ballona Creek conveys flood water and sediment from the watershed to Santa Monica Bay. The conveyance capacity of Ballona Creek is up to 68,000 cubic feet per second (cfs) (CDFW Region 5).

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° 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, with temperatures rarely dropping 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 (CDFW Region 5).

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 surplus 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 Fields and Pipelines

Portions of the watershed are underlain by oil deposits, created by organic matter deposited long ago and subsequently covered by layers of rock and other sediments and may be a source of oil release into Ballona Creek (LADPW 2004).

Oil extraction began in the watershed in 1892, with the discovery of oil in Echo Park. In the coming decades, oil wells were drilled throughout portions of the watershed (LADPW 2004) including numerous oil facilities and pipelines operating adjacent to 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 Ballona Creek is the Inglewood Oil Field. Furthermore, several facilities and pipelines in the vicinity 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 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, onshore 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.

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 input from interested parties 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 Nation matrices	A. Burkholder
December 2024	2	5-Year Update – Full Plan Review and Updates. Added new BAL-033 response strategy site; updated all contact phone numbers	S. Torres, A. Burkholder

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Appendix E
Other Relevant Emergency Response Plans

County of Los Angeles All-Hazards Mitigation Plan

The Los Angeles County Office of Emergency Management (Los Angeles County OEM) has prepared an All-Hazards Mitigation Plan (AHMP) to assess risks posed by natural hazards and to develop a mitigation action plan for reducing the risks in Los Angeles County. The 2020 AHMP replaces the AHMP that was approved in 2014. Hazard mitigation is "any action taken to reduce or eliminate the long-term risk to human life and property from natural hazards." As such, hazard mitigation is any work to minimize the impacts of any type of hazard event before it occurs. Hazard mitigation aims to reduce losses from future disasters. It is a process that identifies and profiles hazards, analyzes the people and facilities at risk, and develops mitigation actions to reduce or eliminate hazard risk. The implementation of the mitigation actions, which include short- and long-term strategies that may involve planning, policy changes, programs, projects, and other activities, is the end result of this process.

Hazard identification consists of describing the nature of the hazard, disaster history, location, extent/severity, and probability of future events. Hazard identification profiles have been developed for each of the eight hazards addressed in this plan. Additionally, impact (i.e., risk assessment) tables have been created for each hazard. Quantitative impact tables were prepared using GIS analysis for climate change (sea level rise), dam failure, earthquake, flood, landslide, tsunami, and wildfire, while a qualitative impact table was prepared for drought. Impacts considered include land area, vulnerable populations and critical facilities (Los Angeles County AHMP, 2020).

Los Angeles County Operational Area Emergency Response Plan (OAEOP)

The County of Los Angeles Operational Area Emergency Operations Plan (OAEOP) addresses both the County's planned response to extraordinary emergency situations impacting unincorporated areas of the County as well as Operational Area (OA) coordination. This plan does not apply to day-to-day emergency incidents, or the established procedures used to respond to and manage such emergencies. Rather, this plan focuses on the operational concepts related to all-hazards emergency response and recovery, including maintaining the County's continued compliance with the National Response Framework (NRF), National Incident Management System (NIMS), National Disaster Recovery Framework (NDRF), California Standardized Emergency Management System (SEMS), principles of the Incident Command System (ICS), and the National Preparedness Goal. It facilitates multiagency and multijurisdictional coordination during emergency operations, public information functions, resource management, and recovery efforts.

Significant incidents that occur in the OA not only have local impacts but can result in nation and/or worldwide consequences, including significant supply chain and economic disruptions. For example, the Ports of Los Angeles and Long Beach are the nation's two busiest container ports and combined rank as the ninth busiest container port in the world. Los Angeles International Airport (LAX) regularly ranks as one of the busiest airports in the world, for both passenger traffic and cargo. In 2021, LAX

ranked as the fifth busiest airport in the world based on passenger traffic and the eighth busiest based on air cargo. Examples of other critical infrastructure in the County includes over 650 miles of freeways and miles of critical rail lines that connect to the transcontinental mainlines.

Los Angeles County ranks as the community with the most risk in the United States based on the Federal Emergency Management Agency's (FEMA) National Risk Index which assesses possible hazards a jurisdiction is susceptible to in combination with the amount of loss that could result from those hazards. Locally, there have been many efforts undertaken by various partners that inform the types of hazards faced and the associated levels of risk. These include but are not necessarily limited to, earthquake, wildfire, flood, tsunami, mudslides/land movement, heat and drought, and dam failure. Additionally, impacts from climate change are likely to increase the frequency and intensity of many of these hazards. Other technological or human-caused hazards that could impact the County include, but are not limited to, civil unrest, hazardous material incidents, urban conflagrations, terrorism/complex coordinated attacks, public health emergencies, cyber security breaches, and many more. (Los Angeles County OAEOP, 2023).

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 (Culver City EOP, 2016).

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

The City of Los Angeles prepared the Local Hazard Mitigation Plan (LHMP) to identify resources and strategies for reducing risk from natural hazards. All residents, organizations, and businesses of the City of Los Angeles are the ultimate beneficiaries of this hazard mitigation plan. The plan identifies ways to reduce risk for those who live in, work in, and visit the City of Los Angeles.

Hazard mitigation is defined as any action taken to reduce or alleviate the loss of life, personal injury, and property damage that can result from a disaster. It involves long- and short-term actions implemented before, during, and after disasters. Hazard mitigation activities include planning efforts, policy changes, programs, studies, improvement projects, and other steps to reduce the impacts of hazards.

The updated 2024 LHMP differs from the previous 2018 plan in a variety of ways, including, but not limited to: an enhanced public outreach effort; improved risk assessment to align with the 2023 updated FEMA guidance; and a new approach to consider the effect of climate change and local mitigation capabilities on the risk posed by each hazard. Oil spills are included in the list of defined "hazards of interest."

The population within the City of Los Angeles will be most notably affected by the human health hazards caused by oil spill events. Socially vulnerable populations are those most likely to face increased risk in the event of an oil spill.

City assets near the shoreline, large inland waterways, oil terminals and pipelines, or transportation corridors that permit the transport of oil have an increased risk of exposure. In terms of facility-related and property damage, damage may include contaminated soil, groundwater, and nearby water bodies.

Oil spills may lead to road and harbor closures until response and clean-up efforts are completed. This may impact access to certain communities, work commutes, and the ability to deliver goods and services efficiently. The Port of Los Angeles is a critical point of entry that needs to remain open and operational to maintain the vital shipping logistics required to sustain Los Angeles communities and communities across the State of California. In the event of a large-scale oil spill resulting in a Port closure, cascading impacts will be felt citywide, countywide, and statewide. City of Los Angeles, 2024 Local Hazard Mitigation Plan.

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 (Los Angeles-Long Beach ACP, 2023).

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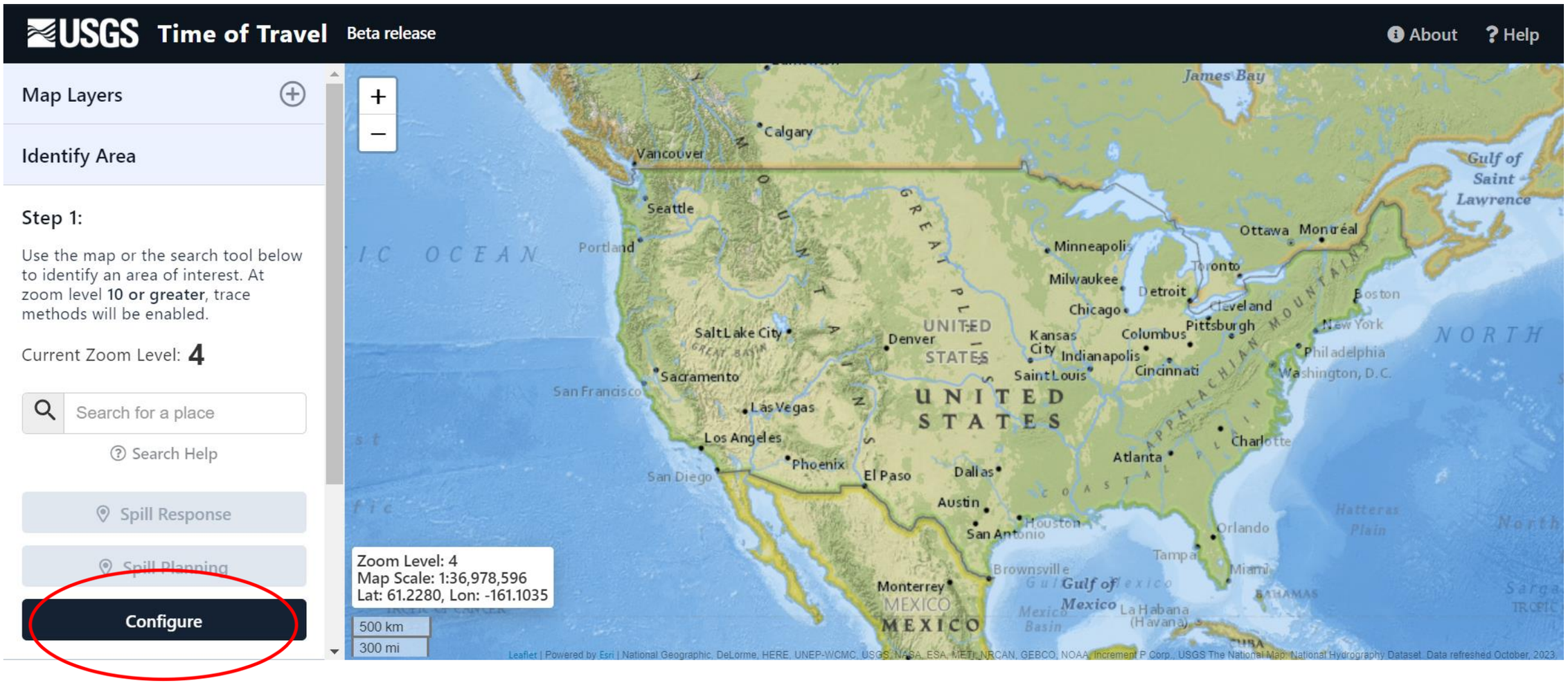
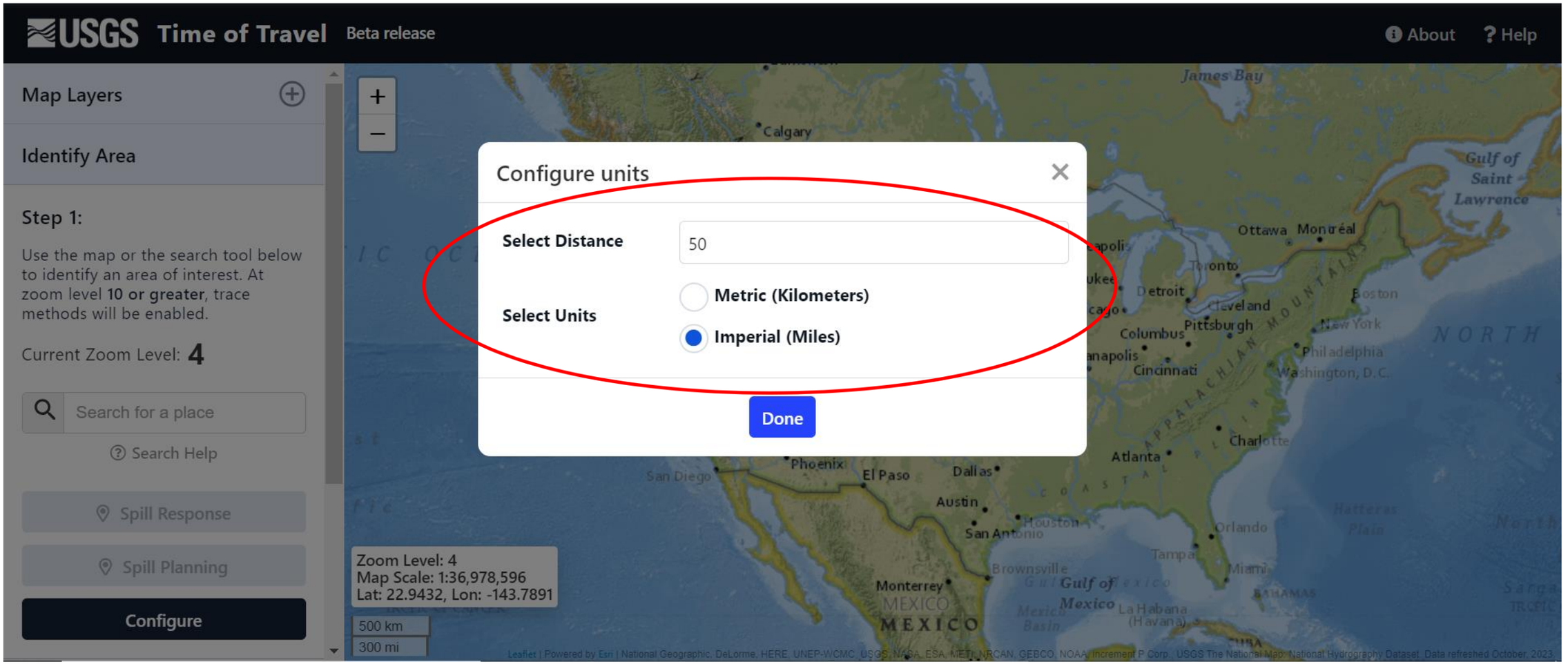
Appendix G: USGS StreamStats Time to Travel Tool Job Aid

The time to travel tool was developed based on surface particles, not petroleum products, but will provide a good estimate of downstream travel.

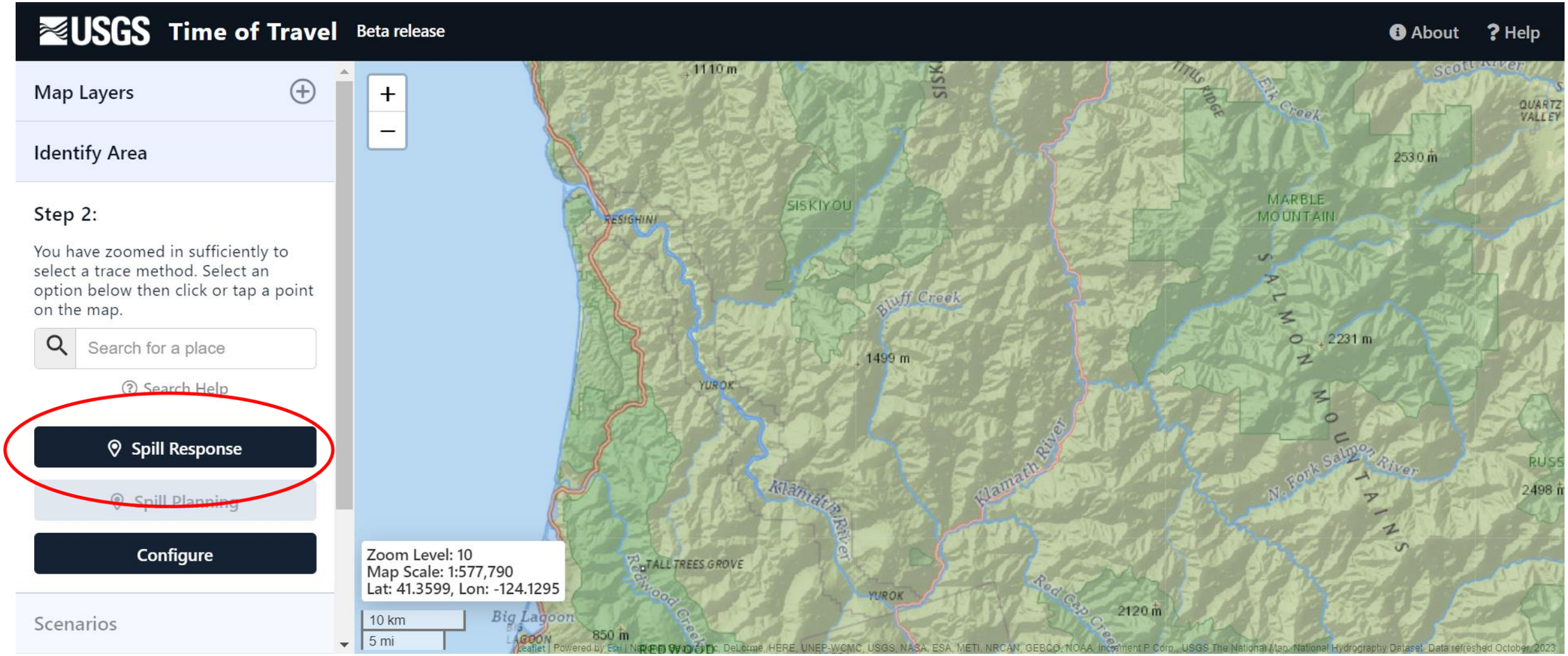
1. Load website and select "Configure" on the left column, https://streamstats.usgs.gov/tot-beta/.



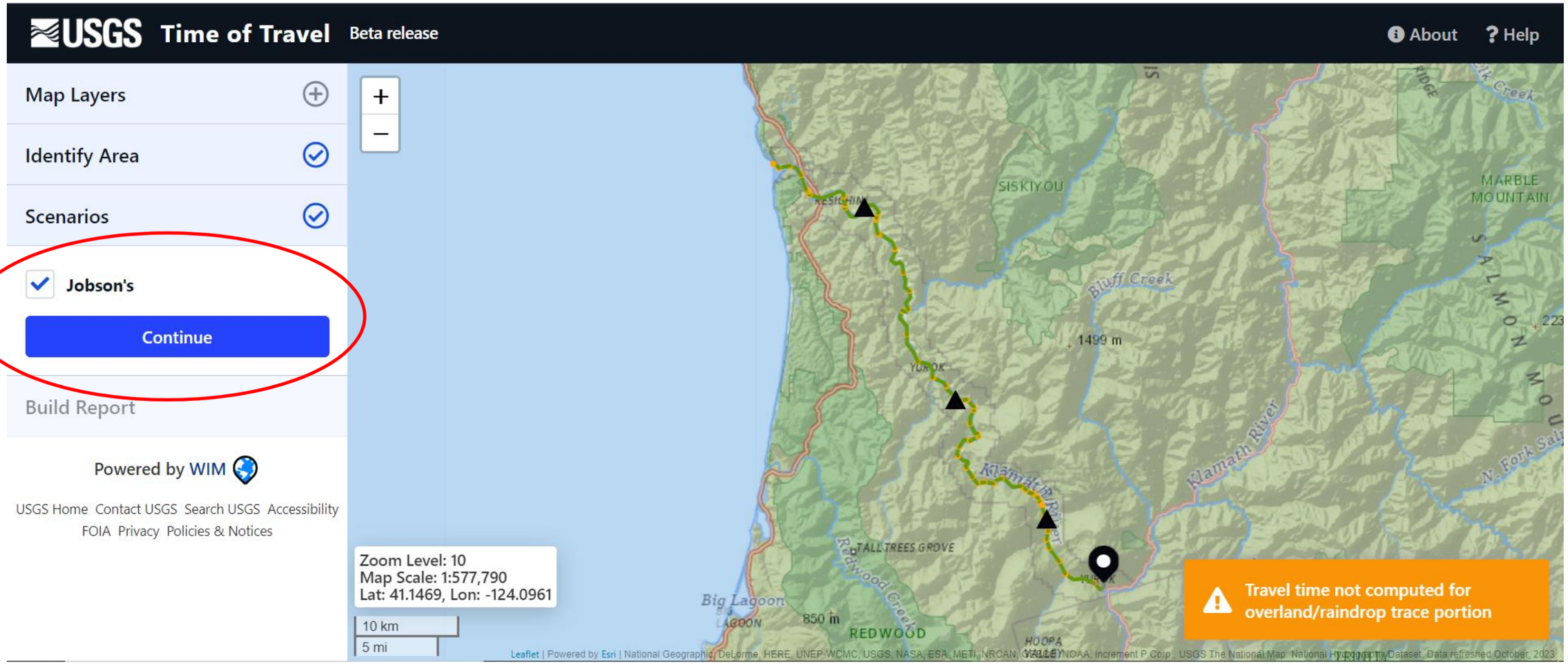
2. Select "Imperial (Miles)" and enter distance downstream from release site that you would like to view time of travel and click "Done."



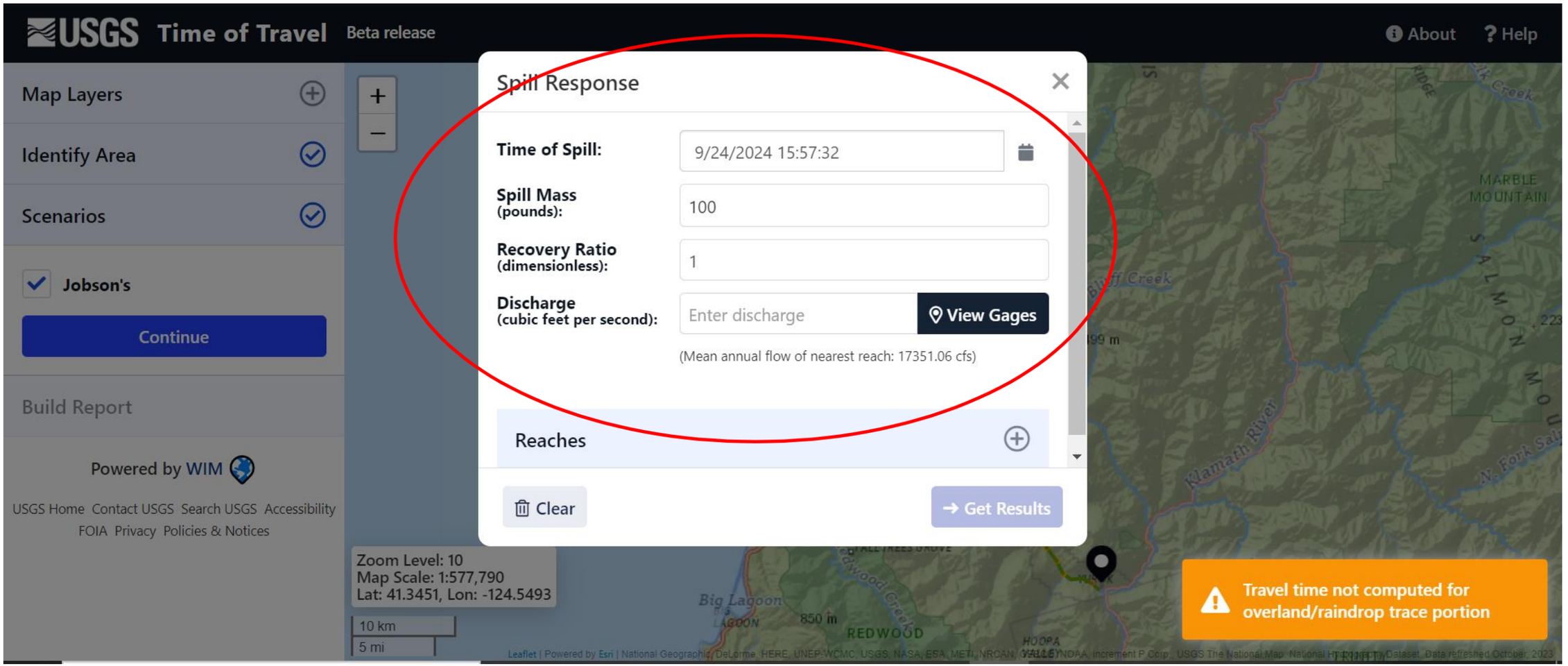
3. Zoom in to location of release, when you zoom in sufficiently close, it will activate the “Spill Response” button. Select this button and then click on the location of the release on the map.



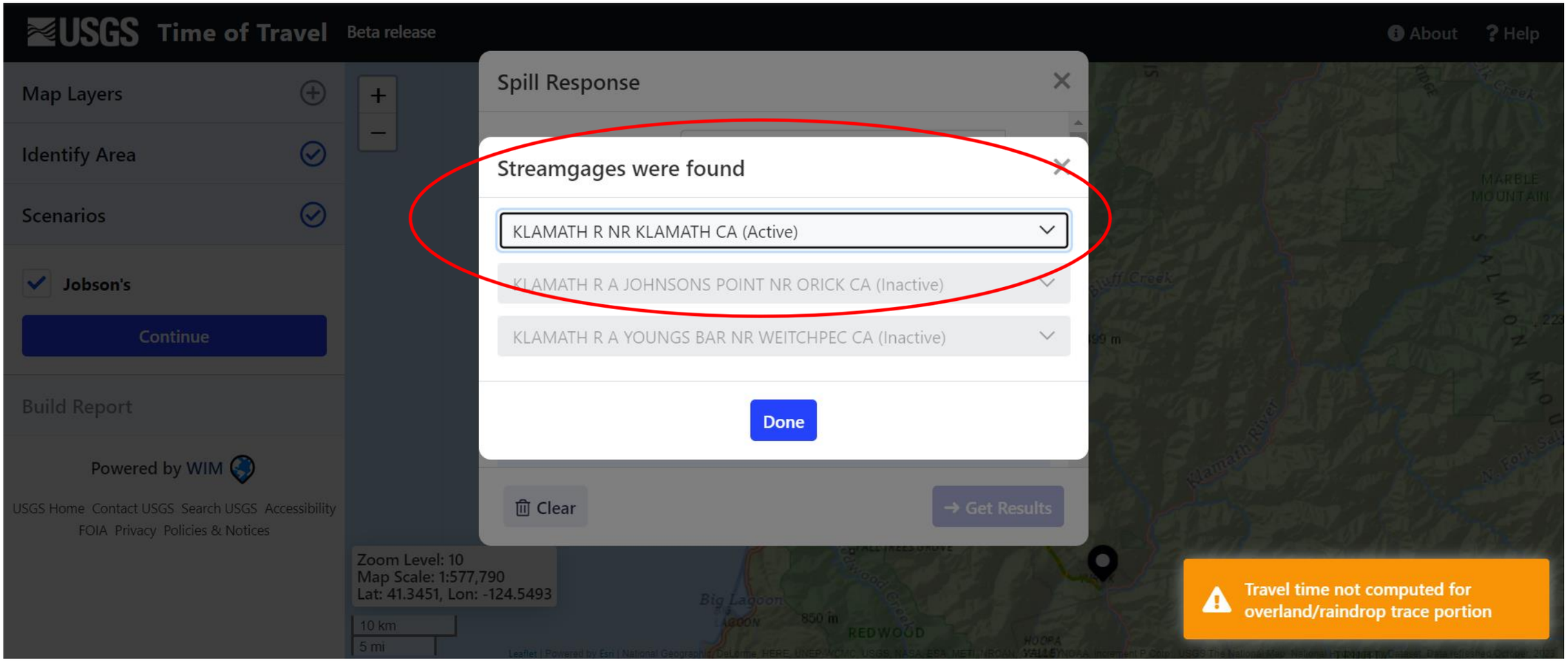
4. The map will load and the left column will update with a blue "Continue" button; leave "Jobson's" selected and click "Continue."



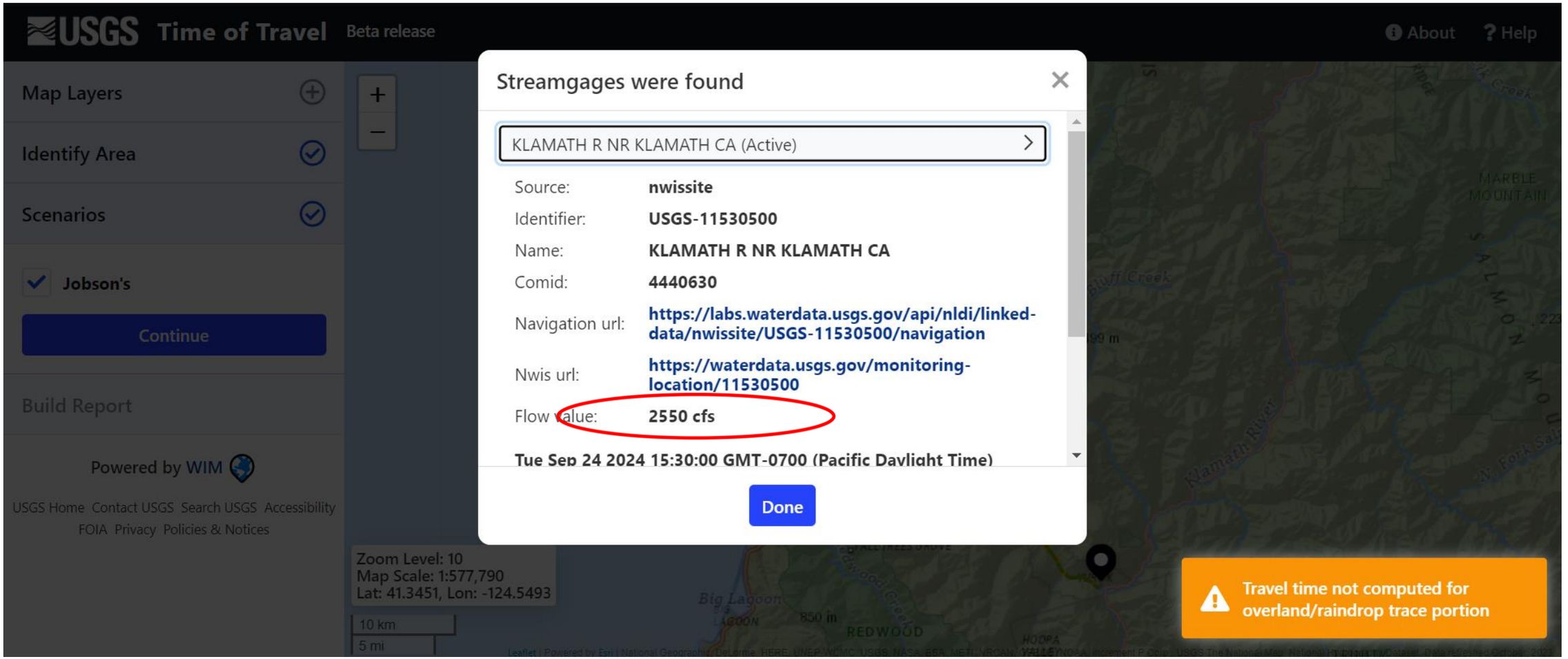
5. Enter Spill Response information:
   - Update date and time of spill as needed.
   - Under "Spill Mass," enter a dummy number, such as 100 (this provides concentration data only).
   - Leave Recovery Ratio at "1" (this also contributes to concentration data only).
   - Under Discharge, click "View Gauges," to get current cfs for the location of the spill of downstream.
   - **NOTE: for Ballona Creek**, use Los Angeles County Department of Public Works Stormwater Engineering Division to obtain current cfs.



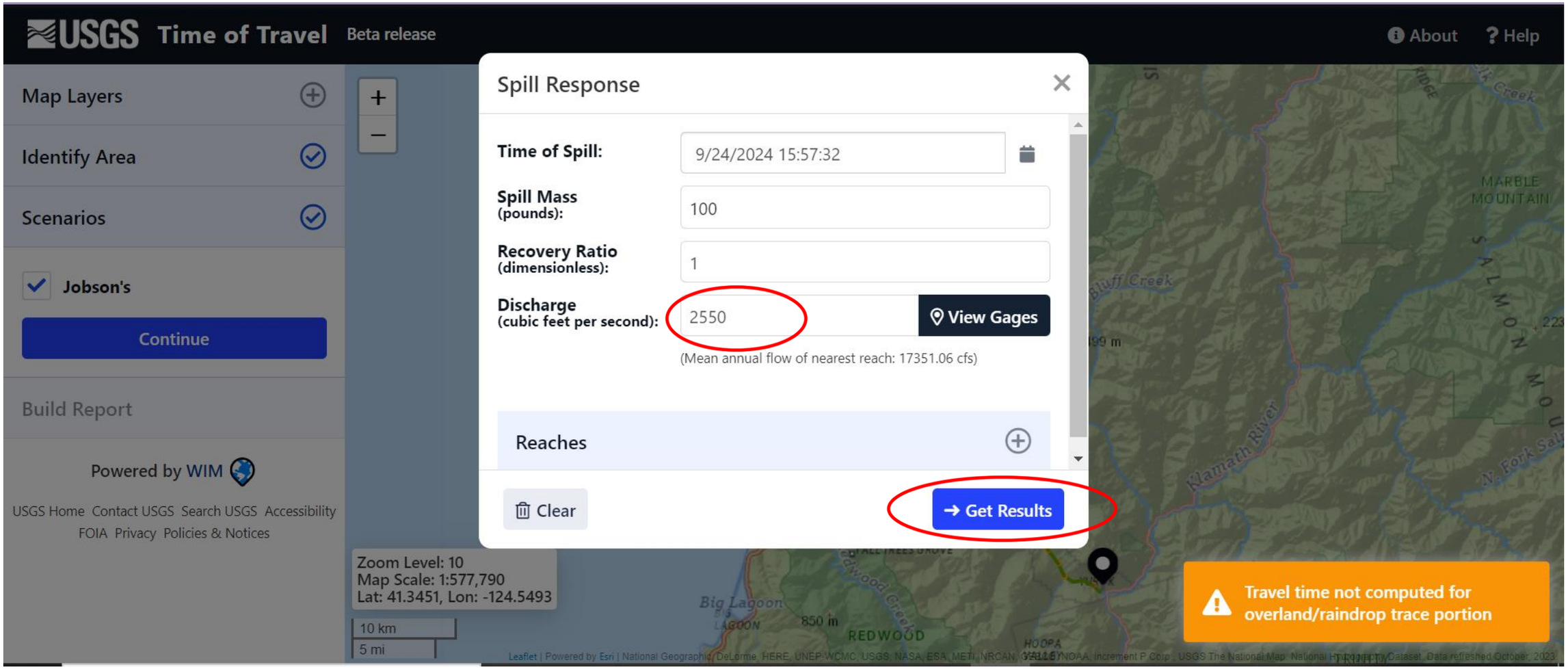
6. Under "View Gauges," select an active gauge.
   - **NOTE: for Ballona Creek**, use Los Angeles County Department of Public Works Stormwater Engineering Division to obtain current cfs.



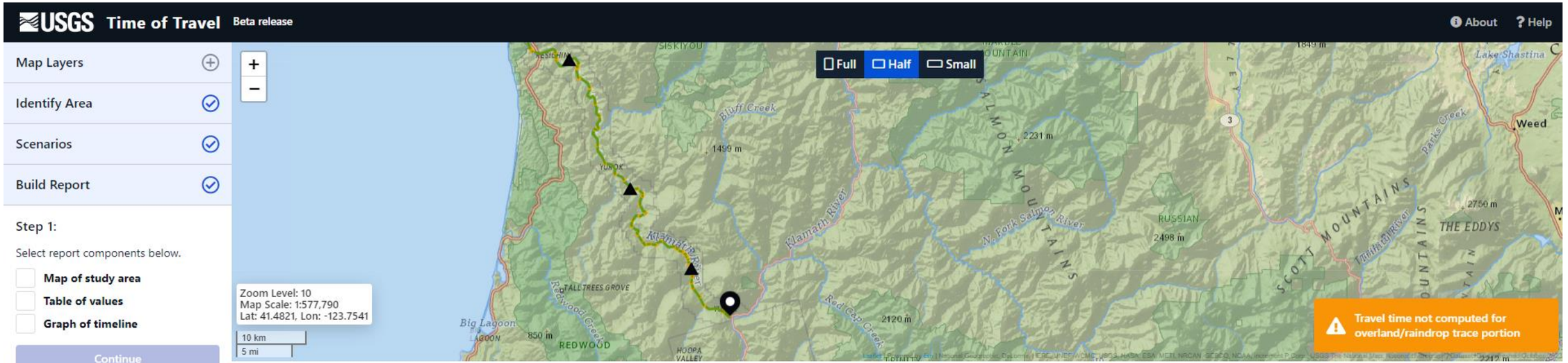
7. Take note of the cfs at the selected gauge and close this page by clicking "Done."
   - Note: if you are unable to access gauge info on this site, try opening the USGS Water Dashboard site to obtain current cfs for the stretch of river of interest.



8. Enter the current cfs (from the previous slide) to the left of "View Gauges," and select "Get Results."

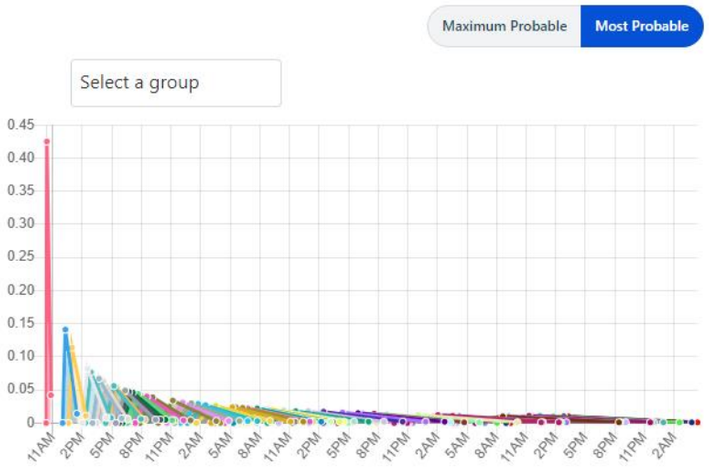


9. In the table below the map, find the leading edge (hours) column and find the time frame of interest (e.g., 6 hours) and click on the row for that reach.

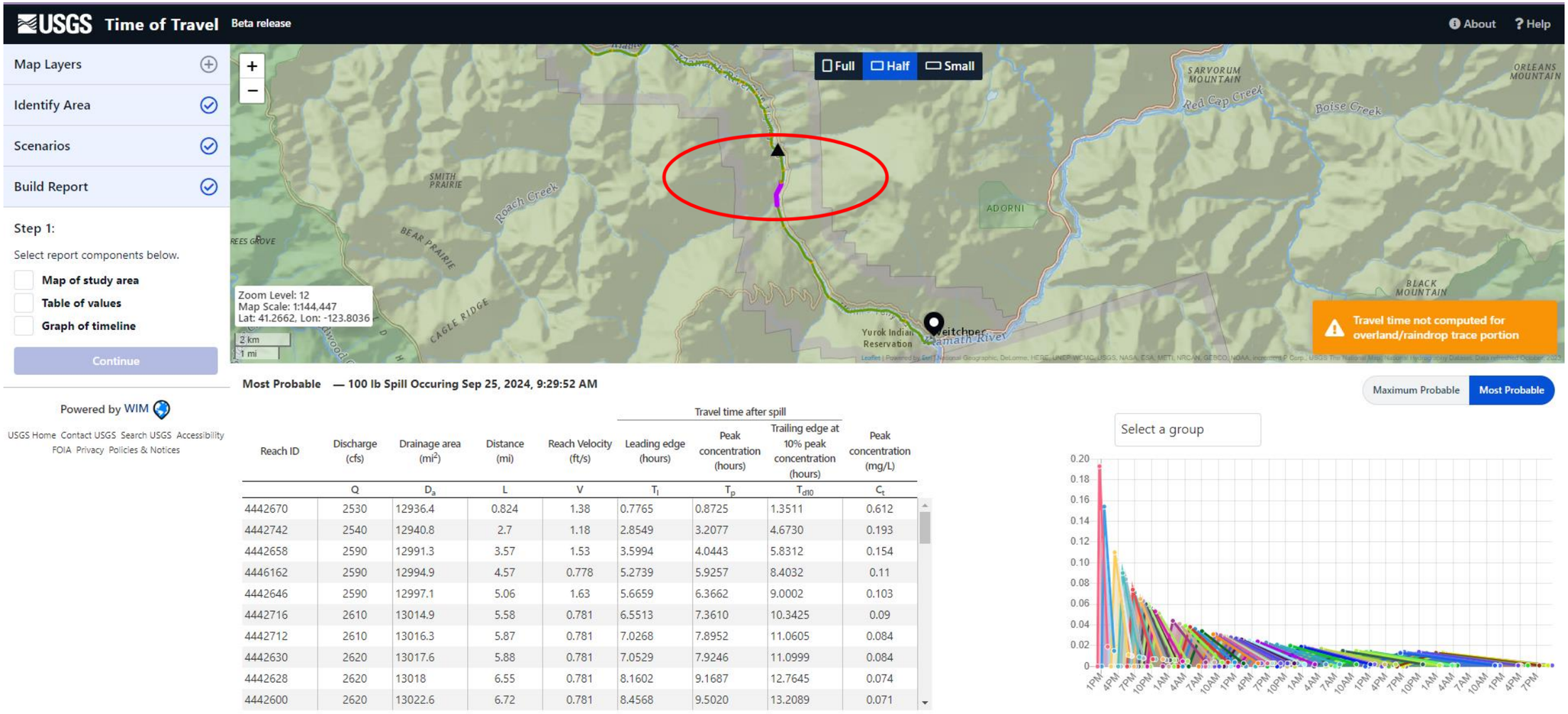


Most Probable — 100 lb Spill Occuring Sep 25, 2024, 9:42:22 AM

Reach ID	Discharge (cfs)	Drainage area (mi^2)	Distance (mi)	Reach Velocity (ft/s)	Travel time after spill: Leading edge (hours)	Travel time after spill: Peak concentration (hours)	Travel time after spill: Trailing edge at 10% peak concentration (hours)	Peak concentration (mg/L)
	Q	D_a	L	V	T_l	T_p	T_{d10}	C_t
4442674	2530	9964.5	0.0187	2.1	0.0116	0.0131	0.0280	21.471
4442670	4340	12936.4	0.843	1.74	0.6290	0.7068	1.1120	0.425
4442742	4340	12940.8	2.72	1.46	2.2999	2.5842	3.7499	0.141
4442658	4430	12991.3	3.59	1.93	2.8890	3.2461	4.6484	0.114
4446162	4430	12994.9	4.59	0.935	4.2848	4.8143	6.7424	0.082
4442646	4440	12997.1	5.07	2.06	4.5940	5.1617	7.2011	0.077
4442716	4470	13014.9	5.6	0.935	5.3319	5.9909	8.2901	0.067
4442712	4480	13016.3	5.89	0.935	5.7282	6.4362	8.8718	0.063
4442630	4480	13017.6	5.9	0.935	5.7500	6.4606	8.9037	0.063
4442628	4480	13018	6.56	0.935	6.6728	7.4976	10.2509	0.056



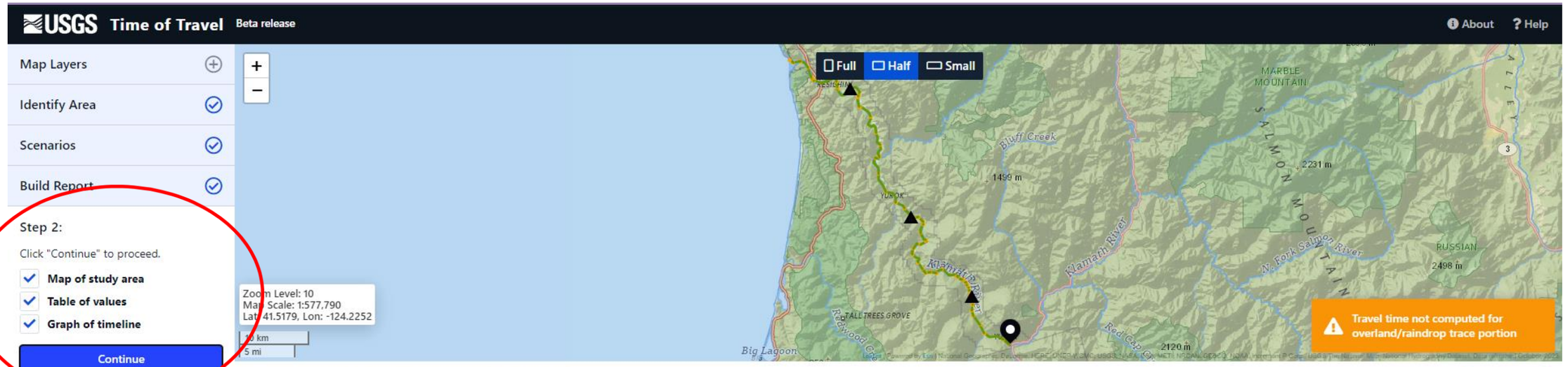
10. The map for that reach will highlight in dark pink, between the two orange nodes that comprise the reach ID. The downstream node of the purple highlight is the location of the leading edge.



Reach ID	Discharge (cfs)	Drainage area (mi^2)	Distance (mi)	Reach Velocity (ft/s)	Travel time after spill: Leading edge (hours)	Travel time after spill: Peak concentration (hours)	Travel time after spill: Trailing edge at 10% peak concentration (hours)	Peak concentration (mg/L)
	Q	D_a	L	V	T_l	T_p	T_{d10}	C_t
4442670	2530	12936.4	0.824	1.38	0.7765	0.8725	1.3511	0.612
4442742	2540	12940.8	2.7	1.18	2.8549	3.2077	4.6730	0.193
4442658	2590	12991.3	3.57	1.53	3.5994	4.0443	5.8312	0.154
4446162	2590	12994.9	4.57	0.778	5.2739	5.9257	8.4032	0.11
4442646	2590	12997.1	5.06	1.63	5.6659	6.3662	9.0002	0.103
4442716	2610	13014.9	5.58	0.781	6.5513	7.3610	10.3425	0.09
4442712	2610	13016.3	5.87	0.781	7.0268	7.8952	11.0605	0.084
4442630	2620	13017.6	5.88	0.781	7.0529	7.9246	11.0999	0.084
4442628	2620	13018	6.55	0.781	8.1602	9.1687	12.7645	0.074
4442600	2620	13022.6	6.72	0.781	8.4568	9.5020	13.2089	0.071

Note: The map and table are set to "Most Probable" (right hand side in blue) which should be sufficient in terms of getting in front of the spill down river to set up containment. However, if there are drinking water intakes or other infrastructure of significant importance, by choosing "Maximum Probable" this will provide a worst-case, highest possible, velocity in order to close or protect intakes and infrastructure.

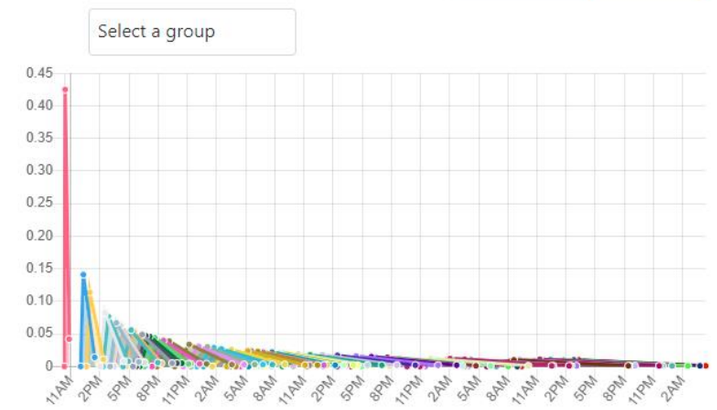
11. To produce a report, on the left tool bar, under "Step 1" (will change to "Step 2" when you click on report components), click on the components you would like to show and click "Continue."



Most Probable — 100 lb Spill Occuring Sep 25, 2024, 9:42:22 AM

Maximum Probable | Most Probable

Reach ID	Discharge (cfs)	Drainage area (mi^2)	Distance (mi)	Reach Velocity (ft/s)	Travel time after spill: Leading edge (hours)	Travel time after spill: Peak concentration (hours)	Travel time after spill: Trailing edge at 10% peak concentration (hours)	Peak concentration (mg/L)
	Q	D_a	L	V	T_l	T_p	T_{cl10}	C_t
4442674	2530	9964.5	0.0187	2.1	0.0116	0.0131	0.0280	21.471
4442670	4340	12936.4	0.843	1.74	0.6290	0.7068	1.1120	0.425
4442742	4340	12940.8	2.72	1.46	2.2999	2.5842	3.7499	0.141
4442658	4430	12991.3	3.59	1.93	2.8890	3.2461	4.6484	0.114
4446162	4430	12994.9	4.59	0.935	4.2848	4.8143	6.7424	0.082
4442646	4440	12997.1	5.07	2.06	4.5940	5.1617	7.2011	0.077
4442716	4470	13014.9	5.6	0.935	5.3319	5.9909	8.2901	0.067
4442712	4480	13016.3	5.89	0.935	5.7282	6.4362	8.8718	0.063
4442630	4480	13017.6	5.9	0.935	5.7500	6.4606	8.9037	0.063
4442628	4480	13018	6.56	0.935	6.6728	7.4976	10.2509	0.056



Time of Travel Report

Most Probable

Reach ID	Discharge (cfs)	Drainage area (mi^2)	Distance (mi)	Reach Velocity (ft/s)	Travel time after spill			Peak concentration (mg/L)
					Leading edge (hours)	Peak concentration (hours)	Trailing edge at 10% peak concentration (hours)	
	Q	D_a	L	V	T_l	T_p	T_{d10}	C_t
4442672	2660	0.282	0.0424	65.1	0.0008	0.0009	0.0488	6.976
4442674	NaN	9960	0.641	446	0.0026	0.0029	0.0759	0
4442670	NaN	12900	1.47	358	0.0056	0.0063	0.1034	0
4442742	NaN	12900	3.34	287	0.0141	0.0159	0.1522	0
4442658	NaN	13000	4.21	404	0.0170	0.0191	0.1647	0
4446162	NaN	13000	5.21	156	0.0253	0.0285	0.1970	0
4442646	NaN	13000	5.7	436	0.0268	0.0301	0.2021	0
4442716	NaN	13000	6.23	156	0.0312	0.0351	0.2169	0
4442712	NaN	13000	6.51	156	0.0336	0.0378	0.2244	0
4442630	NaN	13000	6.53	156	0.0337	0.0379	0.2248	0
4442628	NaN	13000	7.19	156	0.0393	0.0441	0.2415	0
4442600	NaN	13000	7.36	156	0.0408	0.0458	0.2458	0
4442708	NaN	13000	7.92	156	0.0454	0.0510	0.2588	0
4442588	NaN	13000	8.16	156	0.0475	0.0533	0.2645	0
4442584	NaN	13000	8.42	156	0.0496	0.0557	0.2701	0
4442582	NaN	13000	8.75	156	0.0524	0.0589	0.2775	0
4442578	NaN	13000	8.87	156	0.0534	0.0600	0.2800	0
4442574	NaN	13000	9.32	156	0.0572	0.0643	0.2898	0
4442568	NaN	13000	9.68	156	0.0602	0.0676	0.2973	0
4442562	NaN	13000	11	156	0.0712	0.0800	0.3237	0
4442554	NaN	13000	11.6	156	0.0765	0.0860	0.3359	0
4442556	NaN	13100	12.2	156	0.0813	0.0913	0.3465	0
4442550	NaN	13100	12.6	156	0.0849	0.0954	0.3544	0
4442544	NaN	13100	13.1	156	0.0890	0.1000	0.3634	0
4442536	NaN	13100	13.8	156	0.0944	0.1061	0.3750	0
4442528	NaN	13100	14.9	156	0.1034	0.1162	0.3937	0
4442520	NaN	13100	15.4	515	0.1049	0.1178	0.3966	0

Appendix G
Local/Regional Asset Resources

- **Table G-1: Local/Regional Asset Resources Table**
- **Figure G-1: Cal OES Certified HazMat Material Teams Map**
- **Table G-2: Cal OES Statewide List of Certified California HazMat Teams by Type**
- **Figure G-2: State Water Resources Control Board, Division of Drinking Water District Offices Map**
- **ICP Facility Assessment Check Sheet**

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Table G-1: Local/Regional Response Assets

Resource	Home Base/Owner	Contact Information and Comments
Response Trailers and Equipment (in addition to those granted by OSPR or supplied by an OSRO)		
Harbor Boom 18" x 500 feet	Chevron Refining Playa Del Rey/City of Los Angeles	(310) 615-5172, 24/7
Response Trailer w/ 500 ft. boom	Sentinel Peak Resources, City of Los Angeles	(800) 766-4108
Emergency response boom, housed on one of the fire engines	City of Culver City Fire Department	911, (310) 253-5900
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.		

Unmanned Aerial System Equipment and Pilots		
(3) DJI Mavic Pro 2 drones (2) Mavic 3 drones (3) licensed pilots	Patriot Environmental Services	Kevin Pawson, Senior PM (562) 244-2392 kpawson@patriotenvironmental.com Marc Ruffner, Director (562) 244-2265 mruffner@patriotenvironmental.com
(1) DJI Enterprise drone (1) licensed pilot	MSRC, Long Beach Office	Jeremy Hurd T&IS Remote Surveillance Manager Pacific Region, Everett, WA Office (562) 572-5787
(1) DJI Mavic Pro (1) DJI Mini Pro 3 (1) DJI 3T Thermal	Graymar Environmental	Steve Sitton - Reno (775) 225-4559 ssitton@graymarenv.com Kent Creighton-Central Calif. (562) 310-6969 kcreighton@graymarenv.com Dan Chuntz-Southern Calif. (562) 244-1680 dchuntz@graymarenv.com
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 Department Urban Search and Rescue	Los Angeles Fire Department	(818) 756-9677
Los Angeles County Search & Rescue	Los Angeles County Sheriff's Department	911

Hazardous Materials Response Teams

Cal OES Sponsored and Local Government

Figure G-1: Cal OES Certified HazMat Material Teams Map

Cal OES Sponsored HazMat Teams

Agency	Unit	Type	Region	City
Los Angeles County (FS 129)	HM11	2	I	Lancaster
Los Angeles City (Sta 71)	HM12	2	I	Los Angeles
Contra Costa County (Sta 87)	HM21	2	II	Pittsburg
Seaside Fire	HM22	2	II	Seaside
Yuba City Fire	HM31	2	III	Yuba City
Susanville Fire	HM32	2	III	Susanville
Modesto Fire (Sta 4)	HM41	2	IV	Modesto
South County Fire (Tracy)	HM42	2	IV	Tracy
Kern County Fire	HM51	2	V	Bakersfield
Fresno City Fire (Sta 16)	HM52	2	V	Fresno
San Diego County Fire (Sta 45)	HM61	2	VI	San Diego
San Bernardino County Fire (Sta 22)	HM62	2	VI	Victorville

Local Government HazMat Teams

Agency	Unit_ID	Type	Region	City
Long Beach City Fire (HM-24)	HM-24	1	I	Long Beach
Huntington Beach Fire (HM-46)	HMM-46	1	I	Huntington Beach
Glendale Fire (HM-24)	HM-24	1	I	Glendale
Los Angeles County FD (Former Vernon)	HM-43	1	I	Industry
Ventura County Fire (HM-50)	HM-50	1	I	Camarillo
Orange County Fire-Santa Ana (HM-79)	HM-79	1	I	Santa Ana
Anaheim Fire (HM-6)	HM-6	1	I	Anaheim
Los Angeles County Fire #76 (HM-150)	HM-150	1	I	Santa Clarita
Burbank Fire (HM-12)	HM-12	1	I	Burbank
Santa Monica Fire (HM-4)	HM-40	1	I	Santa Monica
Orange County Fire-Irvine (HM-4)	HM-40	1	I	Irvine
Santa Fe Springs Fire (HM-851)	HM-851	1	I	Santa Fe Springs
Santa Barbara County Fire (HM-31)	HM-31	2	I	Buellton
Santa Barbara City Fire (HM-1)	HM-1	2	I	Santa Barbara
San Luis Obispo County Fire (HM-1)	HM-1	1	I	Paso Robles
Los Angeles City Fire Department	SQ-21	1	I	Los Angeles
Los Angeles City Fire Department	SQ-48	1	I	San Pedro
Los Angeles City Fire Department	SQ-87	1	I	Los Angeles
Los Angeles City Fire Department	SQ-95	1	I	Los Angeles
Contra Costa Health HazMat (HM-1)	HM-1	1	II	Martinez
Alameda Co. Fire (HM-12)	HM-12	1	II	San Leandro
San Ramon Valley Fire (HM-35)	HM-35	2	II	Danville
Marin County JPA (HM-1)	HM-1	1	II	San Anselmo
Sonoma County OES (HM-2936)	HM-2936	2	II	Santa Rosa
Santa Clara County Fire (HM-72)	HM-72	1	II	Cupertino
Sunnyvale Dept. Public Safety (IIM-2)	IIM-2	2	II	Sunnyvale
Napa County - Cal FIRE (HM-27)	HM-27	2	II	Napa
San Jose City Fire (HM-29)	HM-29	1	II	San Jose
Fremont City Fire (HM-61)	HM-61	2	II	Fremont
San Francisco City Fire (HM-1)	HM-1	2	II	San Francisco
Humboldt Bay Fire (HM-8190)	HM-8190	2	III	Eureka
Mountain View Fire (HM-55)	HM-55	2	II	Mountain View
Solano County JPA (HM-1)	HM-1	1	II	Vallejo
Santa Clara City Fire (HM-99)	HM-99	2	II	Santa Clara
Santa Rosa City Fire (HM-1)	HM-1	2	II	Santa Rosa
Livermore-Pleasanton Fire (HM-92)	HM-92	2	II	Pleasanton
Oakland City Fire (HM-2599)	HM-2599	1	II	Oakland
Salinas JPA (Monterey Co) (HM-1)	HM-1	1	II	Salinas
Belmont FPD (San Mateo Co) (HM-14)	HM-14	2	II	Belmont
Presideo of Monterey (HM-H2MT61)	HM-61	2	II	Seaside
Roseville Fire (HM-1)	HM-1	1	IV	Roseville
Sacramento City Fire (HM-7)	HM-7	1	IV	Sacramento
Sacramento City Fire (HM-30)	HM-30	1	IV	Sacramento
Sac Metro Fire (HM-109)	HM-109	1	IV	Carmichael
Stockton (HM-3)	HM-3	2	IV	Stockton
Truckee Fire (HM-1)	HM-1	2	IV	Truckee
Placer County-Central (HM-10)	HM-10	2	IV	Auburn
Fresno City Fire (HM-1)	HM-1	1	V	Fresno
Clovis Fire (HM-40)	HM-40	1	V	Clovis
Bakersfield Fire (HM-15)	HM-15	1	V	Bakersfield
Kern County Fire (HM-66)	HM-66	2	V	Bakersfield
Visalia City Fire (HM-55)	HM-55	1	V	Visalia
Merced County Fire (HM-62)	HM-62	1	V	Atwater
USMC Camp Pendleton (HM-271)	HM-271	1	VI	Camp Pendleton
Corona City Fire (HM-4)	HM-4	2	VI	Corona
Riverside County Fire (HM-34) - Old 81	HM-34	1	VI	Winchester
Riverside County Fire (HM-234) - Old 34	HM-234	2	VI	Winchester
Hemet City Fire (HM-1)	HM-1	2	VI	Hemet
Riverside City Fire (HM-2)	HM-2	1	VI	Riverside
San Bernardino County Fire (HM-73)	HM-73	1	VI	Fontana
San Diego City Fire (HM-1)	HM-1	1	VI	San Diego
San Diego City Fire (HM-2)	HM-2	1	VI	San Diego
San Manuel Fire (HM-241)	HM-241	1	VI	Highland
Rancho Cucamonga County Fire	HM0173	2	VI	Rancho Cucamonga
Ontario City Fire (HM-133)	HM-133	1	VI	Ontario
Butte County Interagency Team (HM-5)	HM-2	2	III	Chico
Shasta-Cascade JPA (HM-24)	HM-24	2	III	Redding

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

CERTIFIED CALIFORNIA HAZ-MAT TEAMS, BY TYPE (Items highlighted is new data since last update) – 3/8/24									
	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-6	12/15/2021	92802
	14	13	32	Burbank City Fire	XLC-BRK	1	HM-12	10/14/2022	91505
	10	10	9	Glendale City Fire	XLC-GLN	1	HM-24	9/16/2022	91203
	7	7	6	Long Beach Fire Dept.	XLF-LOB	1	HM-24	12/15/2021	90802
	81	80	64	Huntington Beach Fire	XOR-HTB	1	HHM-46	5/12/2022	92648
	18	17	30	Los Angeles County Fire	XLB-LAC	1	HM-150	1/23/2018	91351
	51	46	37	Orange Co Fire Authority	XOR-ORC	1	HM-4	8/23/2023	92612
	49	44	26	Orange Co Fire Auth. (formerly Santa Ana hm-9)	XOR-ORC	1	HM-79	8/23/2023	92705
	45	40	23	Ventura County Fire	XVE-VNC	1	HM-50	11/21/2022	93010
	26	25	15	Los Angeles County Fire	XLB-LAC	1	HM-43	7/15/2017	91745
	55	58	47	Santa Fe Springs Fire	XLE-SFS	1	HM # 851	9/20/2023	90670
	54	48	17	Santa Monica Fire	XLA-SMA	1	HM-4	12/28/2021	90404
	11	11	11	Los Angeles City Fire	XLA-LFD	1	OES-12	9/12/2023	90011
	77	76	76	Los Angeles City Fire	XLA-LFD	1	SQ-21	1/29/2021	90012
	78	77	77	Los Angeles City Fire	XLA-LFD	1	SQ-48	2/8/2022	90731
	79	78	78	Los Angeles City Fire	XLA-LFD	1	SQ-87	2/8/2022	91344
	80	79	79	Los Angeles City Fire	XLA-LFD	1	SQ-95	2/8/2022	90045
	72	74	63up	San Luis Obispo County / CAL Fire	XSL-SLU	1	HM-1	1/21/2021	93446
	6	6	11	Alameda County Fire	XAL-ACF	2	HM-12	10/1/2023	94578
	5	8	8	Contra Costa Health Haz Mat	XCC-CCH	2	HM-1	12/1/2021	94553
	1	1	1	Contra Costa County Fire	XCC-CON	2	OES-21	11/3/2023	94565
	33	31	5up	Marin County Fire Haz-Mat JPA	XMR-MRN	2	HM-1	6/1/2021	94960
	43	62	52	Oakland City Fire	XAL-OKL	2	HM # 2599	5/20/2021	94607
	22	45	31	San Jose City Fire	XSC-SJS	2	HIT-29	3/24/2022	95134
	24	23	19	Santa Clara County Fire	XSC-CNT	2	HM – 72	3/4/2022	95014
	50	45	38up	Solano County (OES) Vallejo FD	XSO-VLJ	2	HM-1	6/20/2023	94591
	61	60	50	Salinas City Fire – Monterey County JPA	XMY-SLS	2	HM-2	5/10/2019	93901
	6	6	6	***Currently Being Reassigned***	TBD	3	OES-32	TBD	TBD
	1	1	1	Roseville City Fire	XPL-RSV	4	HM-1	5/26/2021	95678
	2	2	2	Sacramento City Fire	XSA-SCR	4	HMRT-7	7/27/2021	95823
	3	3	3	Sacramento City Fire	XSA-SCR	4	HMRT-30	7/27/2021	95835
	4	4	4	Sacramento Metro F.P.D.	XSA-SAC	4	HM-109	4/17/2023	95608
	5	5	5	South County Fire District	XSJ-TRY	4	OES-42	10/31/2023	95376
	42	36	25up	Bakersfield Fire. Dept	XKE-BKF	5	HM-15	3/29/2022	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	10/4/2023	93703
	8	8	8	Fresno City Fire	XFR-FRN	5	OES-52	10/4/2023	93703
	11	61	14up	Merced County F.D.	XMD-MRD	5	HM-62	5/10/2023	95341
	32	30	41	Visalia Fire	XTU-VSA	5	HM-55	6/30/2022	93291
	67	73	62	Ontario City Fire	XBO-OTO	6	HM-133	5/12/2021	91761
	57	55	44u	Riverside City Fire	XRI-RIV	6	HM-2	4/8/2021	92503
	64	63	51	Riverside County Fire	XRI-RIV	6	HM-34	5/14/2018	92596
	9	9	9	San Bernadino County Fire	XBO-BDC	6	OES-62	8/31/2023	92395
	68	66	55	San Bernardino County Fire	XBO-BDC	6	HM-73	6/18/2019	92335
	9	69	56	San Diego City Fire	XSD-SND	6	HM-1	6/3/2019	92126
	48	70	57	San Diego City Fire	XSD-SND	6	HM-2	6/3/2019	92126
	7	7	7	San Diego City Fire	XSD-SND	6	OES-61	11/6/2023	92108
	15	14	7	U.S. Marine Corp Camp Pendleton	XSD-MCP	6	HM-271	6/20/2022	92055
	72	72	74	San Manuel Band of Mission Indians Fire Dept.	XBO-SMI	6	HM-241	4/30/2021	92346
				TYPE 1 TOTAL:			49		
TYPE 2	59	67	59	Santa Barbara City	XSB-STB	1	HM-72	5/16/2023	93101
	66	65	53	Santa Barbara County	XSB-SBC	1	HM-31	4/29/2022	93427
	11	11	11	Los Angeles County Fire	XLB-LAC	1	OES-11	1/28/2021	93534
	63	71	58	San Mateo Consolidated Fire	XSM-BFS	2	HM-14	12/21/2020	94002
	41	35	33	Fremont City Fire	XAL-FRE	2	HM-61	5/1/2023	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	5/5/2023	94566
	35	32	29	Napa County Fire	XNA-NPA	2	HM-27	10/18/2023	94558
	44	39	35	San Francisco Fire	XSF-SFR	2	HM-1	9/26/2023	94102
	28	27	16	San Ramon Valley Fire Prot. Dist	XCC-SRM	2	HM-31	3/11/2022	94506
	73	75	65	Presidio of Monterey	XMY-POM	2	H2MT61	9-20-2017	93955
	23	52	45	Santa Clara City Fire	XSC-SNC	2	HM-99	7/19/2023	95051
	8	8	18	Sonoma County Emergency Services	XSN-SSR	2	HM-2936	4/7/2022	95403
	58	58	46	Santa Rosa City Fire	XSN-SRS	2	HM-1	2/16/2018	95404
	20	49	36	Mountain View Fire	XSC-MTV	2	HM-55	3/25/2022	94043
	25	24	24	Sunnyvale Dept. Public Safety	XSC-SNY	2	HM-2	11/9/2021	94085
	4	4	4	Seaside Fire	XMY-SEA	2	OES-22	12/4/2020	93955
	36	33	20	Butte County Fire	XBU-BUT	3	HM-2	2/23/2022	95926
	12	54	42	Shasta-Cascade HM JPA (Redding Fire)	XSH-SHS	3	HM-24	7/20/2018	96002
	3	3	3	Yuba City Fire	XSU-YUB	3	OES-31	10/16/2023	95993
	69	68	60	Placer Co. Fire (CDF)	XPL-PCF	4	HM-10	4/9/2021	95603
	72	72	72	Stockton Fire	XSJ-STO	4	HM-3	1/30/2020	95206
	13	12	10	Truckee Fire Prot. District	XTB-TRK	4	HM-1	4/11/2018	96161
	2	2	2	Modesto Fire	XST-MST	4	OES-41	4/13/2021	95351
	47	42	40	Kern County Fire	XKE-KRN	5	HM-66	3/16/2017	93308
	10	10	10	Kern County Fire	XKE-KRN	5	OES-51	2/9/2022	93308
	60	59	49up	Corona City Fire	XRI-COR	6	HM-4	1/18/2019	92879
	56	57	43	Hemet City Fire	XRI-HMT	6	HM-1	8/16/2022	92545
	65	64	54	Riverside County Fire	XRI-RIV	6	HM-234	10/15/2018	92596
	73	73	73	Rancho Cucamonga County Fire (HM-173)	XRI-RCF	6	HM-173	1/3/2020	91739

	80	80	80	**Chino Valley Fire District**	XBO-CHO	**6**	**HM-61**	10/4/2022	91710
	TYPE 2 TOTAL:					***31***			
TOTAL TEAMS PASSED INSPECTION						***80***			

NOTES: CHART has been modified as follows:

1. "Request #" column has been re-named "Orig. Request #".
2. "Insp. #" column has been re-named "Orig. Inspection #".
3. "Pass #" column has been re-named "Recent Pass #". This is to capture the most recent Re-Cert inspection **chronological number**. Further, if a HM unit during a Re-Cert inspection was able to upgrade their typing status, a "up" is indicated next to their Re-Cert number.
4. "Attained" column has been re-named "Most Recent Attained". This is to capture the most recent Re-Cert **inspection date**.

Changes to HM Unit status:

1. Palo Alto FD Team Disbanded 09/23/2021
2. LA City FD Added 4 Type 1 Teams 11/1/2021
3. Huntington Beach FD Added Type 1 Team 05/12/2022
4. Chino Valley Fire District added Type 2 Team 10/4/2022
5. 2023 - OES RHMR Units Upgraded To Type 1: OES-12, OES-21, OES-32,OES-42 OES-52, OES-61, OES-62,

Changes to Chart Statistics:

1. The total number of TYPE 1 HM teams increased to 49.
2. The total number of TYPE 2 HM teams decreased to 31.
3. The total number of TYPE 3 HM teams decreased from 2 to 0.

Figure G-2: State Water Resources Control Board, Division of Drinking Water District Offices Map

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

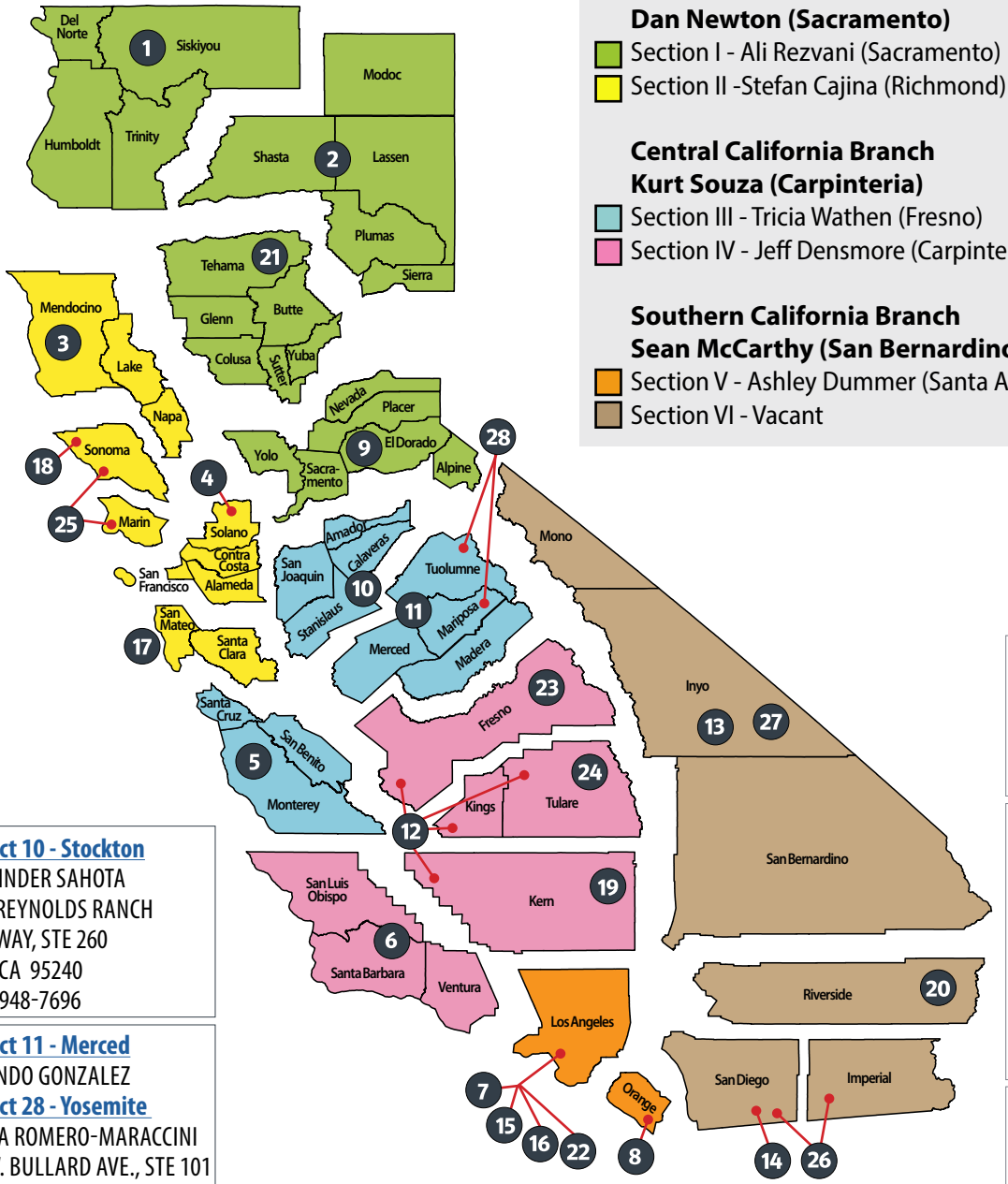
DIVISION OF DRINKING WATER DISTRICT OFFICES

HEADQUARTERS OFFICE • (916) 449-5577 • 1001 I ST, 24TH FLOOR • SACRAMENTO CA 95814

Northern California Branch
Dan Newton (Sacramento)
- Section I - Ali Rezvani (Sacramento)
- Section II -Stefan Cajina (Richmond)

Central California Branch
Kurt Souza (Carpinteria)
- Section III - Tricia Wathen (Fresno)
- Section IV - Jeff Densmore (Carpinteria)

Southern California Branch
Sean McCarthy (San Bernardino)
- Section V - Ashley Dummer (Santa Ana)
- Section VI - Vacant



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Effective April 1, 2024

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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:
Wall space per room				
	Main space:	Meeting room:	Multi-purpose room:	Other:
Tables				
Chairs				
Telephone outlets				
Telephones				
Power outlets				
Internet outlets				
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 H
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

CAMEO Computer-Aided Management of Emergency Operations

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

ERG Emergency Response Guidebook

ESI Environmental Sensitivity Index

EU Environmental Unit

EUL Environmental Unit Leader

F

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

MSL Mean Seal Level

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

THPO Tribal Historic Preservation Officer

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

WRGS Wildlife Recovery Group Supervisor

WRP Wildlife Response Plan

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