



# **Pacific Pipeline Company Integrated Contingency Plan Las Flores Canyon Core Plan**

**12000 Calle Real  
Goleta, California 93117**

**CAL OSPR # TBD  
PHMSA Sequence # TBD**

*Developed by:*

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## Core Plan Revision Log

| Core Plan Revision Log                               |           |   |                               |
|--|-----------|---|-------------------------------|
| Assigned location of this manual is:                 |           | Headquarters – Sable Offshore Corp.<br>12000 Calle Real<br>Goleta, California 93117 |                               |
| The individual designated to review this manual is : |           |   |                               |
| Title of Identified Reviewer:                        |           |   |                               |
| Name of Identified Reviewer:                         |           |   |                               |
| This manual was revised as indicated below:          |           |   |                               |
| Name   | Date      | Revision Type   | Sections Revised              |
| Sable Offshore Corp.                                 | Feb. 2024 | New Plan  | All. New plan implementation. |

## List of Acronyms

| Term   | Definition  |
|--------|---|
| ACP    | Area Contingency Plan   |
| AMP    | Average Most Probably Discharge                                   |
| AOR    | Area of Responsibility  |
| ART    | Alternative Response Technologies                                 |
| CCR    | California Code of Regulations                                    |
| CERCLA | Comprehensive Environmental Response Compensation & Liability Act |
| CFR    | Code of Federal Regulations                                       |
| COML   | Communications Unit Leader  |
| COTP   | Captain of the Port   |
| CUPA   | Certified Unified Program Agency                                  |
| CWA    | Clean Water Act   |
| DOCL   | Documentation Unit Leader   |
| DOT    | Department of Transportation                                      |
| ENVL   | Environmental Unit Leader   |
| EPA    | Environmental Protection Agency                                   |



| Term  | Definition                          |
|-------|-------------------------------------|
| ERG   | Emergency Response Guidebook        |
| ERT   | Emergency Response Team             |
| ESG   | Emergency Support Group             |
| FAA   | Federal Aviation Administration     |
| FLS   | First Line Supervisor               |
| FOSC  | Federal On-Scene Coordinator        |
| FSC   | Finance Section Chief               |
| FWPCA | Federal Water Pollution Control Act |
| GOM   | Gulf of Mexico                      |
| GRA   | Geographic Response Area            |
| GRP   | Geographic Response Plan            |
| IAP   | Incident Action Plan                |
| IC    | Incident Commander                  |
| ICP   | Incident Command Post               |
| ICP   | Integrated Contingency Plan         |
| ICS   | Incident Command System             |
| IMH   | Incident Management Handbook        |
| IMT   | Incident Management Team            |
| ISB   | In-situ Burn                        |
| LEPC  | Local Emergency Planning Committee  |
| LOFR  | Liaison Officer                     |
| LSC   | Logistics Section Chief             |
| MMP   | Maximum Most Probable Discharge     |
| MOV   | Motor Operated Valve                |
| MP    | Mile Post                           |
| MTR   | Marine Transportation Related       |
| NCP   | National Contingency Plan           |

| Term  | Definition   |
|-------|--|
| NEBA  | Net Environmental Benefit Analysis                     |
| NGL   | Natural Gas Liquid                                     |
| NRC   | National Response Center                               |
| NRDA  | Natural Resource Damage Assessment                     |
| OOC   | Operations Control Center                              |
| OPA90 | Oil Pollution Act of 1990                              |
| OSC   | Operations Section Chief                               |
| OSHA  | Occupational Safety and Health Administration          |
| OSPR  | California Office of Spill Prevention and Response     |
| OSRO  | Oil Spill Removal Organization                         |
| OWCN  | Oiled Wildlife Care Network                            |
| PCL   | Preferred Contractor List                              |
| PHMSA | Pipeline and Hazardous Materials Safety Administration |
| PIA   | Post Incident Analysis                                 |
| PIO   | Public Information Officer                             |
| PPE   | Personal Protective Equipment                          |
| PREP  | National Preparedness for Response Exercise Program    |
| PSC   | Planning Section Chief                                 |
| QI    | Qualified Individual                                   |
| RCP   | Regional Contingency Plan                              |
| RCRA  | Resources Conservation and Recovery Act                |
| RESL  | Resource Unit Leader                                   |
| RP    | Responsible Party                                      |
| RWCS  | Reasonable Worst-Case Spill                            |
| RZ    | Response Zone  |
| SDS   | Safety Data Sheet                                      |
| SERC  | State Emergency Response Commission                    |

| Term | Definition                         |
|------|------------------------------------|
| SIMA | Spill Impact Mitigation Assessment |
| SITL | Situation Unit Leader              |
| SMT  | See IMT                            |
| SOFR | Safety Officer                     |
| SOSC | State On-Scene Coordinator         |
| SSP  | Site Safety Plan                   |
| SYU  | Santa Ynez Unit                    |
| TFR  | Temporary Flight Restriction       |
| TLC  | Trunk Line Chart                   |
| TPIC | Terminal Person in Charge          |
| TRP  | TRP Tactical Response Plan         |
| TTX  | Tabletop Exercise                  |
| UAV  | Unmanned Aerial Vehicle            |
| UC   | Unified Command                    |
| USCG | United States Coast Guard          |
| WCD  | Worst Case Discharge               |



## Section 1 Introduction

### 1.1 Purpose and Scope

This Integrated Contingency Plan (ICP) provides guidance on the immediate procedures and notifications which should be followed in an emergency, such as fire, explosion, injury, or release of chemicals, hazardous substances, hazardous wastes, liquified petroleum gases (LPG), crude oil, refined petroleum products, or gases.

This ICP also covers other emergencies such as terrorism, abductions, severe weather, tropical storms, tornadoes, hurricanes, dust storms, floods, fires, wildfires, and earthquakes.

The focus of this ICP is on Sable Offshore Corp. (Sable) operations consisting of the transportation and storage of petroleum and petroleum products. This ICP provides guidance for responding to various emergencies and releases or spills of all sizes. This plan has been prepared for Sable Offshore Corp. to fulfill the requirements of the Oil Pollution Act of 1990 (OPA 90) and other emergency planning requirements that are applicable to Sable Offshore Corp. operations.

This plan outlines the operational procedures that should be used by the Sable Offshore Corp. response teams in reporting, containing, and cleaning up oil spills. The ICP shall be reviewed and updated annually to incorporate new response techniques and procedures as they become available to the industry.

### 1.2 ICP Objectives

This ICP has three major objectives:

| Plan Objectives |  |
|-----------------|--|
| ✓               | To establish safe and consistent methods for responding to, and mitigating impacts of, unplanned releases of hazardous substances, hazardous wastes, crude oil, refined petroleum products, LPGs, and chemicals from pipeline operations.  |
| ✓               | To comply with applicable OPA 90 response planning requirements, U.S., Resource Conservation and Recovery Act (RCRA), Occupational Safety and Health Administration (OSHA), and comparable state rules and regulations governing releases of oil and hazardous materials.  |
| ✓               | To comply with applicable federal and state regulations requiring written procedures for emergency operations. Rapid activation of the ICP and comprehensive knowledge of its contents are important to the success of response operations. All key personnel involved in emergency planning operations should become familiar with this plan. |

### 1.3 Plan Contents

#### 1.3.1 Plan Content Guidelines

This ICP has been prepared in accordance with the Oil Pollution Act of 1990 (OPA 90). OPA 90 amended §311 of the Clean Water Act (CWA) and is designed to comply with applicable Federal and State regulations.

| Plan Content Guidelines |   |
|-------------------------|---|
| ✓                       | Is consistent with the National Contingency Plan (NCP) (40 CFR Part 300, 1994 edition) and will be revised as necessary to be consistent with the NCP and associated Area Contingency Plans (ACPs).   |
| ✓                       | Identifies a Qualified Individual and Designated Alternative with full authority to commit Company resources for response and cleanup actions, and to communicate immediately with appropriate federal authorities and responders.  |
| ✓                       | Identifies and ensures availability of necessary resources to respond to the maximum extent practicable to a worst-case discharge.  |
| ✓                       | Describes training, testing, unannounced drills, and response actions of persons at the facility.   |
| ✓                       | Is to be updated periodically.  |
| ✓                       | Is to be resubmitted for approval in the event of any of the following: <ul style="list-style-type: none"><li>• A change in Sable Offshore Corp. assets configuration that materially alters the information included in the response plan.</li><li>• A change in the type of oil handled, stored, or transferred that materially alters the required resources.</li><li>• A material change in capabilities of the oil spill removal organization.</li><li>• A material change in the facilities spill prevention and response equipment or emergency response procedures, and</li><li>• Any other changes that materially affect the implementation of the response plan.</li></ul> |

#### 1.3.2 Plan Format

The ICP is formatted to contain background, policy, and response related information common to all Sable Offshore Corp. Areas in this Core Plan, and the more site-specific information contained in subsequent Sections or Appendices. Geographic Specific areas include, but are not limited to, Pipeline Response Zones, Pipeline Terminals, Marine Terminals, and Storage Facilities.

### 1.3.3 Geographic Specific Areas

Details of each Geographic Specific Area, including Owner/Operator can be found in the site specific sections or appendices.

| Geographic Areas Regulatory Applicability | <a href="#">PHMSA 194</a> | <a href="#">PHMSA 195</a> | <a href="#">PHMSA 192</a> | <a href="#">USCG 154</a> | <a href="#">EPA 112</a> | <a href="#">EPA 264</a> | <a href="#">OSHA 1910.120</a> | <a href="#">OSHA 1910.38</a> | State Specific |
|---|---------------------------|---------------------------|---------------------------|--------------------------|-------------------------|-------------------------|-------------------------------|------------------------------|----------------|
| Las Flores Pipeline System Response Zone  | ✓                         | ✓                         | -                         |                          |                         |                         | ✓                             |                              | ✓              |



#### 1.3.4 Consistency with the NCP and ACPs

This ICP has been prepared and is maintained in accordance with the policies and information contained in the National Contingency Plan (40 CFR § 300) as well as in the applicable Area Contingency Plans (ACP) (listed below) and their corresponding geographically specific requirements.

| Applicable Regional/Area Contingency Plans |  |
|--|--|
| ✓  | <a href="#">Los Angeles/Long Beach Area Contingency Plan</a> |
| ✓  | <a href="#">Northwest Area Contingency Plan (Region 10)</a>  |

#### 1.4 Plan Implementation and Management

In the event of a spill incident resulting from a Sable Offshore Corp. operation, the ICP will be activated. The responsibilities within Sable Offshore Corp. for managing the spill and subsequent cleanup and restoration are discussed in the plan. Sable Offshore Corp. will commit the necessary resources for effective and efficient containment, cleanup, and return to normal operations.

The specific actions taken to control, contain, and clean up a spill will vary with the type of product spilled and type of incident that has occurred. The Incident Commander (IC) will analyze the situation and exercise good judgment in formulating the best action plan for the type of incident that occurs.

This plan shall also be implemented in times of natural disasters (i.e., earthquakes, floods, tornadoes, hurricanes, etc.) as well as incidents involving civil unrest or terrorism, which could potentially adversely impact a Company asset resulting in the release of oil or highly volatile liquids. Each IC, following the incident command shall be responsible for taking any necessary action to minimize the impact that a natural disaster might have on a Company asset. Precautionary measures will be taken, as deemed appropriate by the IC, to prevent a release. The IC will consider population, environmentally sensitive areas, operational design, and best management practices when determining what response measures to implement.

##### 1.4.1 Plan Review

This plan will be reviewed on an annual basis. QI or Alternate QI shall approve the ICP after each review. In the case of an ICP with more than one QI, only one QI approval is required. If a spill occurs, plan reviews will also be conducted after the event to analyze what worked and what did not and update the plan accordingly.

#### Plan Review/Update Catalysis

|   |   |
|---|---|
| ✓ | New construction or purchase.   |
| ✓ | Change in ownership.  |
| ✓ | Inventories of Company-owned spill response equipment.  |
| ✓ | Different worst case discharge volume.  |
| ✓ | Names and/or phone numbers of OSRO contractors.   |
| ✓ | Changes in Emergency Response Organization(s).  |
| ✓ | Names/phone numbers of the onsite, regional, and corporate response team personnel.   |
| ✓ | Oil storage, transfer, or handling procedures.  |
| ✓ | Change in commodities transported.  |
| ✓ | Response procedures as necessitated by potential deficiencies identified during response training drills or exercises.  |
| ✓ | Revised spill response procedures noted by outside research or major spill responses.   |
| ✓ | Pertinent changes in legislative rules and regulations.   |
| ✓ | Change(s) in the NCP/ACP that has a significant impact on the appropriateness of response equipment or strategies.  |
| ✓ | Training sessions or drills that may generate ideas on how to improve communications, personnel call out, equipment dispatch and deployment.  |
| ✓ | Following an incident, Sable Offshore Corp. will conduct a meeting with key members of its response organization to critique the response effort, analyze the results of the response and will suggest modifications to the plan, if necessary. |

The various federal regulatory requirements for submitting ICP's to a particular agency are listed below. Along with the federal agency resubmittal, plans will also be provided to the SERC and LEPC accordingly. State review, update, and submission requirements will be followed, as applicable.

It is the QI's responsibility for ensuring these updates and resubmission to the various agencies are completed. In addition, the QI will work with the EP&R Advisor to verify the updates and confirm submission requirements to said agencies.

#### 1.4.2 U.S. Coast Guard Plan Review and Resubmission Requirements

A facility owner or operator must review his or her response plan(s) annually. For a Marine Transportation Related (MTR) facility, this review must occur within 1 month of the anniversary date of Captain of the Port (COTP) approval of the plan. For an MTR facility identified as a "substantial harm facility", this review must occur within 1 month of the anniversary date of submission of the plan to the COTP.

**USCG Review and Resubmission Requirements**

|   |  |
|---|--|
| ✓ | A change in the facility's configuration that significantly affects the information included in the response plan.   |
| ✓ | A change in the type of oil (petroleum oil group) handled, stored, or transported that affects the required response resources.  |
| ✓ | A change in the name(s) or capabilities of the oil spill removal organization required by §154.1045.   |
| ✓ | A change in the facility's emergency response procedures.  |
| ✓ | A change in the facility's operating area that includes ports or geographic area(s) not covered by the previously approved plan. A facility may not operate in an area not covered in a plan previously submitted or approved, as appropriate, unless the revised plan is approved, or interim operating approval is received under §154.1025. |
| ✓ | Any other changes that significantly affect the implementation of the plan.  |

The facility owner or operator shall submit revisions to a previously submitted or approved plan to the COTP and all other plan holders for information or approval within **30 days**.

Revisions to personnel and telephone number lists included in the response Plan do not require COTP approval. COTP and all other holders of the response Plan shall be advised of these revisions and provided a copy of the revisions as they occur.

The COTP may require a facility owner or operator to revise a response plan at any time because of a compliance inspection if the COTP determines that the response plan does not meet the requirements or because of inadequacies noted in the response plan during an actual pollution incident at the facility.

**1.4.3 Environmental Protection Agency**

The owner or operator of a facility for which a response plan is required shall revise and resubmit revised portions of the response plan within **60 days** of each facility change that materially may affect the response to a worst-case discharge. Amendments to personnel and telephone number lists included in the response plan and a change in the oil spill removal organization(s) that does not result in a material change in support capabilities do not require approval by the Regional Administrator. Facility owners or operators shall provide a copy of such changes to the Regional Administrator as the revisions occur.



#### EPA Review and Resubmission Requirements

|   |  |
|---|--|
| ✓ | A change in the facility's configuration that materially alters the information included in the response plan.                           |
| ✓ | A change in the type of oil handled, stored, or transferred that materially alters the required response resources.                      |
| ✓ | Material changes in capabilities of the oil spill removal organization(s) that provide equipment and personnel to respond to discharges. |
| ✓ | Material changes in the facility's spill prevention and response equipment or emergency response procedures.                             |
| ✓ | Any other changes that materially affect the implementation of the response plan.  |

#### 1.4.4 Pipeline and Hazardous Materials Safety Administration

Each operator shall review its response plan in full at least every 5 years from the date of the last submission or the last approval as follows:

- For significant and substantial harm plans, an operator shall resubmit every 5 years from the last approval date,
- For substantial harm plans the operator shall resubmit its response plan every 5 years from the last submission date.

If new or different operating conditions and/or information would substantially affect the implementation of this plan, Sable Offshore Corp. will immediately modify the plan and submit the plan modifications to PHMSA for approval within **30 days** of making such a change.

#### DOT / PHMSA Review and Resubmission Requirements

|   |   |
|---|---|
| ✓ | An extension of the existing pipeline or construction of a new pipeline in a response zone not covered by the previously approved plan.   |
| ✓ | Relocation or replacement of the pipeline in a way that substantially affects the information included in the response plan, such as a change to the worst-case discharge volume. |
| ✓ | The type of oil transported, if the type affects the required response resources, such as a change from crude oil to gasoline.  |
| ✓ | A change in the name of the oil spill removal organization.   |
| ✓ | A change in the emergency response procedures.  |
| ✓ | A change of the qualified individual.   |
| ✓ | A change in the National Contingency Plan (NCP) or an Area Contingency Plan (ACP) that has significant impact on the equipment appropriate for response activities.               |
| ✓ | Any other information relating to circumstances that may affect full implementation of the plan.  |

### **1.5 Corporate Policy Statement**

Sable Offshore Corp. responds to every emergency immediately, to protect people, the environment, assets, and reputation. It is Sable Offshore Corp.'s policy to conduct its business in a manner that is compatible with the balanced environmental and economic needs of the communities in which it operates. Further, it is Sable Offshore Corp. policy to comply with all applicable environmental laws and regulations and apply responsible standards where laws or regulations do not exist. Sable Offshore Corp. is committed to continuous efforts to improve environmental performance throughout its activities. It will encourage concern and respect for the environment, emphasize every employee's responsibility in environmental performance, and ensure appropriate operating practices and training. Sable Offshore Corp. will communicate with the public on environmental matters and share its experience with others to facilitate improvements in industry performance.

In furtherance of this policy Sable Offshore Corp. will:

- Work with government and industry groups to foster timely development of appropriate environmental laws and regulations, providing advice on the impact of such laws and regulations on the environment, costs, and supply.
- Manage its business with the goal of preventing incidents, and design, operate and maintain facilities to this end.
- Respond quickly and effectively to incidents resulting from its operations, cooperating with industry organizations and authorized government agencies.
- Conduct and support research to improve understanding of the impact of its business on the environment, to improve methods of environmental protection, and to enhance its capability to make operations and products compatible with the environment.
- Undertake appropriate reviews and evaluations of its operations to measure progress and to ensure compliance with this environmental policy.

## Section 2 Pre-Emergency Planning

### 2.1 Pre-Emergency Planning and Prevention Mechanisms

Sable Offshore Corp. has implemented several programs and procedures and installed several devices on their facilities to prevent spills from occurring and to rapidly detect and recognize spills if they do occur. Included in these programs, procedures, and equipment are:

| Discharge Prevention and Mitigation Mechanisms |  |
|--|--|
| ✓  | Prevention procedures  |
| ✓  | Pipeline and terminal inspection and testing procedures                |
| ✓  | Discharge detection equipment and procedures                           |
| ✓  | Recognition of emergency conditions and prediction of the consequences |
| ✓  | Leak response actions  |
| ✓  | Public Education   |



## **2.2 Discharge Prevention**

Sable Offshore Corp.'s approach to preventing discharges is to assure that all facilities are properly designed, constructed, maintained, and operated. Sable Offshore Corp. facilities are designed, constructed, maintained, and operated in accordance with applicable codes (ASME B31.4, Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohols, and those standards that it references), regulations (49 CFR Parts 192 or 195), and good engineering practices.

### **2.2.1 Discharge Prevention Methods**

| <b>Discharge Prevention Methods Examples</b> |   |
|--|---|
| ✓  | Components in the pipeline system are designed and constructed in accordance with written specifications.   |
| ✓  | Components are inspected to ensure that quality is maintained during material procurement and construction.   |
| ✓  | Trained personnel are used during the construction of the facilities.   |
| ✓  | Various testing methods are used during construction of the facilities.   |
| ✓  | External and internal corrosion control methods are used to maintain the facilities in the best possible condition.   |
| ✓  | A preventive maintenance program reduces the potential for component malfunction or failure.  |
| ✓  | Sable Offshore Corp. personnel are properly trained to operate and maintain the pipeline system.  |
| ✓  | Sable Offshore Corp. has an extensive safety and drug testing program for its employees and requires the same for its contractors.  |
| ✓  | Sable Offshore Corp. systems are designed and operated with safety factors in place. For example, the maximum operating pressure of a system is always less than the design pressure and test pressure of the system. |
| ✓  | Pressures are monitored and controlled so that the maximum operating pressures are not exceeded.  |
| ✓  | When appropriate, internal inspection tools are used, or lines are subjected to additional hydrostatic testing to determine and assure their integrity.   |
| ✓  | All wastes are stored in accordance with applicable regulatory requirements (DOT containers that are non-leaking, closed, in good condition, properly marked/labeled, inspected to ensure integrity, etc.).           |

### 2.2.2 Prevention of Third-Party Damage

If the systems are properly designed, constructed, operated, and maintained, then the most probable source of discharge is due to third-party damage. Sable Offshore Corp. minimizes the chance of third part damage as follows:

| Prevention of Third-Party Damage |  |
|----------------------------------|--|
| ✓                                | The facilities are designed to reduce the chance of third-party damage. For example, most of the facilities are buried or located within fenced and locked areas.  |
| ✓                                | Areas especially sensitive to third-party damage are road, railroad, and water crossings. Pipelines in these areas usually have additional wall thickness, or burial depth, or are cased to reduce the chance of damage. |
| ✓                                | Sable Offshore Corp. facilities are normally located on well-maintained and clearly marked rights-of-way.  |
| ✓                                | Sable Offshore Corp. facilities are normally monitored by aerial or other patrol at least once per week to check for encroachment and construction activities.   |
| ✓                                | Sable Offshore Corp. participates in one-call pipeline locating and notification systems where available.  |
| ✓                                | Sable Offshore Corp. conducts education programs to reduce the possibility of third-party damage.  |

### 2.2.3 Corrosion Mitigation and Cathodic Protection

Sable Offshore Corp. typically prevents external corrosion of buried pipelines and tank bottoms through the application of cathodic protection and protective coatings. Impressed current cathodic protection is generally used, although sacrificial anodes may be used in certain situations.

External corrosion of piping or tanks exposed to atmosphere is controlled through coatings and paints. Sable Offshore Corp. may use maintenance pigging and/or chemical treatment to mitigate internal corrosion of pipelines in which such a risk has been identified. For more information about Sable Offshore Corp. corrosion control programs, including monitoring methods and frequencies, refer to the Integrity Management Program and Operations and Maintenance Manual.

#### 2.2.3.1 Buried Piping

If a section of buried line is exposed either unintentionally or exposed due to a non-related construction or maintenance activity, it will be carefully examined for deterioration by facility personnel knowledgeable of facility operations, the piping, and the characteristics of the product transferred. The external examination will include:

- During excavation, care will be taken in removing soil from around the pipe to prevent damaging the pipeline or coating. The last few inches of soil will be removed manually to avoid damage to the pipe.

- Visually inspect the external condition of the piping and / or coating for leaks, obvious pipe deformations or dents, deteriorated or damaged coating, and paint/coating concerns beyond light surface rust and minor paint chipping.

If a section of buried line is exposed specifically for inspection, maintenance, or repair, it will be carefully examined for deterioration by qualified operating or maintenance personnel. The external examination will include:

- During excavation, care will be taken in removing soil from around the pipe to prevent damaging the pipeline or coating. The last few inches of soil will be removed manually to avoid damage to the pipe.
- Visually inspect the external condition of the piping. If the coating is deteriorated or damaged, it should be removed in that area and the underlying metal should be visually inspected.
- Evaluate internal corrosion and remaining thickness of the piping using external, ultrasonic thickness (UT) measurements (optional). In or out of service thickness measurement will be done with minimum disturbance, if any, to the existing pipe protective coating.

If deteriorated coating, corrosion damage, or leak is found, corrective action will be taken as indicated by the magnitude of the damage.

All exposed pipelines are inspected in accordance with 49 CFR Part 195.569. Inspection documentation is not provided unless deteriorated coatings or corrosion damage are found, and corrective action taken. The facility will maintain permanent and progressive records documenting deteriorated coatings or corrosion damage findings and corrective action.

#### **2.2.3.2 Out-of-Service Pipes**

Piping terminal connections (i.e., transfer loading and unloading connections) are securely capped or blank flanged and marked as to origin when the piping is not in service or in standby service for extended periods.

#### **2.2.3.3 Pipe Supports**

In accordance with good engineering practice and petroleum industry standards, pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction of the pipeline.

#### **2.2.3.4 Elevated Pipelines**

Elevated pipelines to the loading racks are sufficiently high and the supports adequately protected to prevent tank trucks from accidentally hitting them. Speed limit signs are posted at the entrance of each loading rack bay to limit any impact damage to aboveground pipelines.

**2.2.4 Storage Tanks Prevention and Self-Inspection****2.2.4.1 Tank Fire Prevention and Protection**

| Tank Fire Prevention and Protection |   |
|-------------------------------------|---|
| ✓                                   | Continuous fluid level monitoring by remote Control Center, with graduated high-level warning, and high-high level alarm notification to remote Control Center. |
| ✓                                   | Floating tank roof grounding shunts and bonding cables.   |
| ✓                                   | Hazardous area designations and including safe work permit process to restrict hot work.  |
| ✓                                   | Independent high-high level mechanism.  |
| ✓                                   | Primary and secondary floating roof seals to reduce flammable and explosive emissions.  |
| ✓                                   | Tank grounding rods and cables.   |

**2.2.4.2 Storage Tank Overfill Lines**

High-level alarms are checked for operation before the start of each receipt and available tank capacity is compared with the receipt volume, thus reducing the likelihood of tank overfills. Storage tank receipts are also continuously monitored and verified every hour by reading the level gauge on the receiving tanks. Level gauges of the tanks are read every hour and receipt volumes are compared to shipment volumes. Discrepancies are investigated immediately by stopping the pumping and rechecking tanks and piping systems.

**2.2.4.3 Visual Tank Inspection**

The visual tank inspection checklist presented below has been included as guidance for inspections and monitoring. Also included in the visual tank inspection will be an inspection of the tank foundation and associated piping. All tankage, pumping equipment, piping, and related facility equipment are inspected for leakage, malfunctions of seals, etc. every working day. Storage tanks are inspected monthly and annually, and findings are recorded. These records shall be maintained for a minimum of five (5) years.

| Visual Tank Inspection Items |                                      |
|------------------------------|--------------------------------------|
| ✓                            | Corrosion.                           |
| ✓                            | Cracks.                              |
| ✓                            | Discoloration of tanks.              |
| ✓                            | Drip marks.                          |
| ✓                            | Localized dead vegetation.           |
| ✓                            | Puddles containing stored materials. |



Various tank inspections are performed in addition to normal rounds.

#### **2.2.4.4 Monthly Inspections**

##### **Monthly Visual Tank Exterior Inspections**

|   |   |
|---|---|
| ✓ | Evidence of leaks (e.g., on the shell, flanges, and mixers).  |
| ✓ | Changing conditions (e.g., shell distortions, settlement or heaving, and active corrosion) oil or water in tank lot/pad or on the roof. |
| ✓ | Condition of the foundation, paint coatings, floating roof, insulation systems, and appurtenances.                                      |

#### **2.2.4.5 Annual Inspections**

##### **Annual Aboveground Storage Tank Inspection Items**

|   |  |
|---|--|
| ✓ | Condition of platforms and ladders.                  |
| ✓ | Condition of rescue tank davit.                      |
| ✓ | Condition of roof legs, manholes, vents, and drains. |
| ✓ | Condition of seals.                                  |
| ✓ | Condition of the foundation.                         |
| ✓ | Seal gap measurements, as required.                  |

Formal in-service and out-of-service inspections are also performed, under API 653.

##### **Foundation Inspection Items**

|   |                                      |
|---|--------------------------------------|
| ✓ | Cracks.                              |
| ✓ | Damage caused by vegetation roots.   |
| ✓ | Discoloration.                       |
| ✓ | Gaps between tank and foundation.    |
| ✓ | Puddles containing stored materials. |
| ✓ | Settling.                            |

**Piping Inspection Items**

|   |  |
|---|--|
| ✓ | Bowing of pipe between supports.                         |
| ✓ | Corrosion.   |
| ✓ | Discoloration.   |
| ✓ | Droplets of stored material.                             |
| ✓ | Evidence of stored material seepage on valves and seals. |
| ✓ | Localized dead vegetation.                               |

Facility operators visually inspect all tanks for leaks each working day. Daily tank gauges are reviewed for evidence of product loss that would indicate a leak in the tank. Any visible oil leaks from tank seams, gaskets, rivets and/or bolts are corrected immediately.

**2.2.5 Secondary Containment Inspection**

The secondary containment areas shown on the site plans will be inspected on the interval specified in the site-specific Spill Prevention, Control, and Countermeasures Plan (SPCC), as appropriate.

**Secondary Containment Inspection Items**

|   |  |
|---|--|
| ✓ | Excessive debris or vegetation in the tank lot.        |
| ✓ | Proper dike drainage operation.                        |
| ✓ | Proper warning signs in place.                         |
| ✓ | Signs of erosion or damage to the tank berm.           |
| ✓ | Tank lot drainage pattern (away from tank and piping). |
| ✓ | Corrosion.   |
| ✓ | Cracks.  |
| ✓ | Discoloration.   |
| ✓ | Presence of stored materials (standing liquid).        |
| ✓ | Valve conditions.                                      |

The dike or berm areas shown on the site plans will be inspected on the interval specified in the site-specific Spill Prevention, Control, and Countermeasures Plan (SPCC), as appropriate.

**Dike or Berm System Inspection Items**

|   |  |
|---|--|
| ✓ | Debris.  |
| ✓ | Erosion.   |
| ✓ | Level of precipitation in dike/available capacity.             |
| ✓ | Location/status of pipes, inlets, drainage beneath tanks, etc. |
| ✓ | The operation status of drainage valves.                       |

**2.2.5.1 Stormwater Drainage**

Stormwater within a containment structure (station/facility containment or tank berms) is visually inspected for an oily sheen or suspended solids and/or foam before release. If visual inspection indicates that stormwater may be contaminated, stormwater samples are collected and sent to a laboratory for analysis. Adequate remediation of contaminated stormwater is required before release.

**2.2.5.2 Dike Drainage**

Drainage of precipitation accumulation from dike areas is performed only after inspection of the accumulation to ensure compliance with applicable water quality standards. Any water possessing a film, sheen, or discoloration on the surface is not discharged until such sheen has been physically removed with the use of absorbent pads. Drain valves are sealed and always locked except when there is an operator on-site.

**Dike Drainage Inspection Items**

|   |   |
|---|---|
| ✓ | Inspects the water for a film, sheen, or discoloration. |
| ✓ | Monitors the discharge.                                 |
| ✓ | Removes any film, sheen, or discoloration.              |

**2.2.5.3 Rack Drain**

Rack drains are inspected to ensure that any petroleum released from the loading facilities can be conveyed through clean, open drains into proper on-site containment.

### 2.2.6 Human Error Prevention

If the facility is properly designed, constructed, operated, and maintained, then the most probable source of discharge is due to human error. Human errors, like those listed below, can be minimized by being aware of the problem when it arises and then using the minimization techniques already in place at the facility.

| Human Factor Risks               |  |
|----------------------------------|--|
| Risk                             | Control  |
| Abnormal operations              | Written procedures, training, and review of typical scenarios                          |
| Drug/Alcohol abuse               | Drug/Alcohol Program, Employee Assistance Program, and DISA Program                    |
| Fatigue and/or personal problems | Facility Management Policy   |
| Inadequate training              | Oil Spill Prevention training, and Oil Spill prevention training updates               |
| Loading/Unloading Errors         | Check-in Requirement   |
|                                  | Truck Driver orientation training and Driver Certification                             |
|                                  | Card Lock System   |
| Maintenance Hot Work errors      | Work Permitting Process and Training   |
| Maintenance item oversight       | Written PM program   |
| Miscommunication                 | Repeat communication and backup radio system   |
| Miscommunication at shift change | Written shift reports and shift exchange checklist which includes critical procedures. |
| Misreading instrumentation       | Improved lighting and back up provided, independent instruments                        |
| Operator error                   | Training updates, Operator Certification, and SOP Continuing Education                 |
| Operator inattention             | Check-in requirement   |

## **2.3 Discharge Detection**

### **Discharge Detection Methods**

|   |   |
|---|---|
| ✓ | Discharge detection by Sable Offshore Corp. personnel, pipeline patrols, or the public.   |
| ✓ | Automated discharge detection by the Supervisory Control and Data Acquisition (SCADA) system at the OCC which monitors flow and pressure on most lines as well as breakout tank oil levels. |
| ✓ | Various other procedures and practices.   |

### **2.3.1 Automated Discharge Detection**

#### **2.3.1.1 Pressure and Flow Monitors**

Most pipelines have hi-low pressure and flow monitors that exercise local control or transmit data to the OCC or both. These systems are set to alarm or shut down on preset deviations of pressure or flow. In case of an alarm, the OCC will act in accordance with Operating Instructions.

#### **2.3.1.2 System Shutdown**

An employee who discovers an outage, receives a report that an outage has occurred, or observes other hazardous conditions shall request shutdown of the affected system and notify the Area Supervisor if he is satisfied that a Sable Offshore Corp. line is involved.

#### **2.3.1.3 Overfill Alarm**

Breakout tanks are equipped with high- and low-level alarms. Overfill or complete loss will trigger alarms transmitted to both the OCC and local area office.

### **2.3.2 Discharge Detection by Personnel**

#### **2.3.2.1 Periodic Inspection**

Aerial patrols over each major pipeline are normally made a minimum of once each week.

#### **2.3.2.2 Other Sightings of Spills/Releases**

Other spills/releases on land can be detected during routine travel along the right-of-way by Sable Offshore Corp. personnel. In some instances, they may be observed and reported by the public or the employees of others in the industry.

Right-of-way marker signs are installed and maintained at road crossings and other noticeable points and provide an emergency 24-hour telephone number to be used by any person wishing to report a pipeline leak.

### **2.3.3 Pipeline Leak Detection Systems, Devices, Equipment, or Procedures**

#### **2.3.3.1 Operational Control and Surveillance Guidelines**



Sable Offshore Corp. operational control and surveillance guidelines cover all facilities, controls, and operations normally required to operate the pipeline system(s) in a safe, feasible, cost-effective manner in moving commodities from one point to another. Specific guidelines are:

| Specific Operational Control and Surveillance Guidelines |  |
|--|--|
| ✓  | Utilize a maximum of feasible, cost-justifiable local/automatic "fail safe" type controls and designs.   |
| ✓  | Provide a central remote-control center with adequate state-of-the-art SCADA facilities to minimize local manned operational requirements. The required remote controls and surveillance should be optimized consistent with operational needs and regulatory requirements.  |
| ✓  | Use centralized "hub" remote control centers to the extent justified for security, consolidation of control, and data transmittal to the OCC.  |
| ✓  | To the extent feasible, provide consistency in design and operation to facilitate ease and reliability of operation and maintenance. Whenever possible, use tried and proven design techniques and equipment. This is not intended to preclude development and testing of new techniques or equipment, but to make certain that when new techniques and equipment are to be used or tested, that fact is conveyed ahead of time to all concerned and approval is obtained.   |
| ✓  | On new or revised facilities, consider cost vs. benefit, both through detailed study and by experience. Check for compliance with code and regulatory requirements.  |
| ✓  | Utilize the "design criteria" as the vehicle to clearly define all facilities and the proposed operational modes. Include specific details of the "Operational Control and Surveillance" systems. Also include a section describing all major equipment, including electrical/electronic/computer packages, so that all concerned are aware and in agreement with the planned facilities. New, unfamiliar equipment can result in extra costs in training/debugging that may not justify the cost. The design criteria should be developed/reviewed/formally approved in the early stages of the project. If significant changes occur during the design of the project, the criteria should be updated and resubmitted for review and approval. |
| ✓  | Each time a significant system is completed/revised and placed online, debug and optimize it before releasing it for normal operation.   |
| ✓  | Periodically review the control and surveillance on each existing system including those remotely controlled and those locally controlled. A cursory review should be performed periodically to identify systems requiring in-depth study.   |
| ✓  | Reassess long-range, multiyear programs periodically to see that plans are still valid and to report progress and costs. If modifications are required, the plan should be revised.  |

**2.3.3.2 Leak Detection and System Shutdown**

Sable Offshore Corp. leak detection and response guidelines cover those facilities, controls, and actions required to detect a leak or spillage from the pipeline and to minimize the extent of such leak or spillage and its effect on public safety, the environment, and property.

**Levels of Leak Detection**

Sable Offshore Corp. currently uses the following three types of leak detection systems.

|           |                                      |
|-----------|--------------------------------------|
| Level I   | Volume Balance                       |
| Level II  | Flow Rate and Pressure Deviation     |
| Level III | Pressure and Equipment Status Change |

In determining the proper level to assign to a given pipeline system, a system analysis is required.

**Pipeline System Analysis Considerations**

|   |   |
|---|---|
| ✓ | Material characteristics                          |
| ✓ | System physical condition                         |
| ✓ | System size, throughput, and operating conditions |
| ✓ | Existing controls                                 |
| ✓ | Evaluation of leak/hazard/response scenarios      |
| ✓ | Public safety                                     |
| ✓ | Environmental pollution exposure                  |
| ✓ | Potential property losses                         |
| ✓ | Cost/benefit                                      |



#### Leak Detection Levels

| Level  | General Technique   | Shutdown  |
|--|---|---|
| <b>Level I Volume Balance</b><br>Level I systems will be provided with flow measurement facilities into and out of the system to enable volumetric balancing (including line inventory) at intervals of 15, 30, 45, and 60 minutes. These short time comparisons provide indications to the controller of large leaks, while a 24-hour comparison is used to detect smaller leaks. In addition, pressure sensing, status of pumping equipment, and excessive flow and pressure deviation alarming is provided. Alarm settings are adjusted as required to eliminate spurious alarms due to normal system fluctuations. Many require settings for both steady state and dynamic (planned changes) conditions. | <ul style="list-style-type: none"> <li>Line volume imbalance</li> <li>High pressure (audible alarm)</li> <li>High flow rate and low pressure</li> <li>Low pressure</li> <li>High flow rate</li> <li>Low flow rate</li> <li>Excessive flow rate deviation</li> <li>Excessive decreasing pressure deviations</li> <li>Equipment status change not initiated by OCC</li> </ul> | <ol style="list-style-type: none"> <li>Local automatic shutdown on high or low line pressures.</li> <li>OCC manual shutdown on major line balance deviations.</li> <li>OCC manual shutdown on overall alarm evaluation.</li> <li>Close-off of controllable isolation valves where available and pressure watch to determine affected section.</li> <li>For new systems, the number, location, and remote operability of isolation valves should be carefully evaluated to meet codes and regulatory and hazard requirements.</li> </ol> |
| <b>Level II Flow Rate and Pressure Deviation</b><br>Level II systems are provided for facilities measuring flow rate, usually at the discharge points out of the system, as well as equipment status and pump discharge pressures, where possible, at all pumping facilities. These data provide excessive flow and pressure rate of change detection with enough operational data for the controller to distinguish an accidental release.  | <p>The following applicable alarms will be generated*:</p> <ul style="list-style-type: none"> <li>High line pressure (audible alarm)</li> <li>Low line pressure</li> <li>Excessive negative flow rate deviation</li> <li>Equipment status changes not initiated by OCC.</li> <li>Low flow rate</li> </ul>   | <ol style="list-style-type: none"> <li>Local automatic shutdown on high or low pressure.</li> <li>OCC manual shutdown on overall alarm evaluation.</li> <li>Close-off if remote control isolation valves are available and pressure watch to determine affected section.</li> <li>For new systems, the number, location, and remote operability of isolation valves should be carefully evaluated to meet codes, regulatory, and hazard requirements.</li> </ol>  |
| <b>Level III Pressure and Equipment Status Change</b><br>Level III facilities are controlled from the OCC and equipped with pump equipment status and discharge pressure indications. Excessive pressure rate of change alarming is used. Facilities of lesser importance have local sensing of discharge pressure for shutdown on high or low pressure.   | <p>The following applicable conditions will generate alarms*:</p> <ul style="list-style-type: none"> <li>High line pressure (audible alarm)</li> <li>Low line pressure</li> <li>Excessive negative pressure deviation</li> <li>Equipment status changes not requested by OCC</li> </ul>   | <ol style="list-style-type: none"> <li>Local automatic shutdown on high or low pressure.</li> <li>OCC manual shutdown on alarm evaluation.</li> <li>Isolate system to extent remote isolation valves are available. Call for manual isolation immediately upon confirmation of leak.</li> <li>For new systems, the number, location, and remote operability of isolation valves should be carefully evaluated to meet codes, regulatory, and hazard requirements.</li> </ol>  |

*\*Alarm settings are adjusted as required to eliminate spurious alarms due to normal system fluctuations. Many require settings for both steady state and dynamic conditions.*

### **2.3.4 Recognizing an Emergency**

A person evaluating a situation must assess the circumstances surrounding an event, determine if an emergency exists, and respond accordingly. Sable Offshore Corp. personnel are trained in hazards or emergency recognition procedures as described below.

An emergency in pipeline and facility operations often originates with the unexpected release or spill of commodities. Uncontained commodities and high vapor concentrations present substantial hazards for fires or explosions until they dissipate to safe levels. In these situations, sources of ignition must be controlled to eliminate fire and explosion hazards. Sable Offshore Corp. has strict rules for controlling sources of ignition within tank farm property to avoid such explosions or fires. Potential sources of ignition become more difficult to control on public property. Early detection and quick response are the best actions to reduce the hazards.

#### **2.3.4.1 Visual Keys**

There should never be petroleum or refined products exposed to the atmosphere during Sable Offshore Corp. normal operations except during maintenance activities. Following an oil spill, dark stains, sheens, rainbows, or spilled material will accumulate near the source or at the lowest point along the surrounding terrain. That point may be in the diked area around a tank or, in the case of a pipeline, in a ditch, creek, pond, river, lake, or gutter. The oil products that Sable Offshore Corp. transports are lighter than water and therefore will remain on the surface of open water. If the surface of a waterway appears abnormal, further investigation is required. Liquefied petroleum gas (LPG) or HVLS will freeze anything in the immediate area of a release. Signs of frost, white soil, or a vapor cloud may indicate an LPG release.

Vapor clouds may also accompany a release of petroleum or chemical product, not just LPG. Response personnel should be careful and assume that an apparent fog is an explosive vapor cloud capable of flashing. These clouds will eventually dissipate to the atmosphere. Wind can help the situation by accelerating vapor cloud dissipation. However, before the cloud dissipates, it may move into populated areas with numerous ignition sources, thus creating a significant safety hazard.

#### **2.3.4.2 Auditory Keys**

Splashing, spraying, or hissing sounds near tankage or pump stations may indicate a breach of mechanical integrity resulting in a release.

#### **2.3.4.3 Smell**

Most of the products that Sable Offshore Corp. transports have a unique smell, identifiable to experienced personnel. If unusual odor concentrations are noticed or reported, they should be investigated.



#### **2.3.4.4 Automation**

Most pipelines are monitored by automatic controls from the Sable Offshore Corp. Operations Control Center (OCC). A more detailed description of these systems and parameters can be found in the operating manuals for the pipeline systems.

Pipeline volume accounting equipment is vital to the identification of a release. Dispatching personnel monitor operating pressures to ensure that they are within predetermined guidelines. If the operating pressure is outside the operating range or a volume discrepancy exists, an alarm will sound.

Tank level reading equipment will activate an alarm when tank levels exceed predetermined limits, thus preventing a tank overflow or detecting a leaking tank.

Additional information on the automated discharge detection systems is provided in the previous section entitled "Discharge Detection".

#### **2.4 Public Awareness Program**

| <b>Sable Offshore Corp. Public Awareness Program</b> |   |
|--|---|
| ✓  | Sable Offshore Corp. is committed to educating the public about pipelines, pipeline safety, damage prevention and emergency readiness. Communication methods may include direct mail brochures, public service announcements, such as billboards, advertisements, and industry collaborative efforts, and other customized educational programs and outreach. |
| ✓  | DOT 95 requires an established public awareness program that educates nearby residents and other key stakeholders – schools, emergency responders/officials, excavators, and public officials – about the dangers and safety precautions of underground pipelines.  |
| ✓  | Sable Offshore Corp. satisfies public awareness requirements through mass mailing of educational brochures every two years for residents and landowners (affected public) and annually for emergency officials, schools, public officials, and excavators. The affected public and excavator brochures are both in English and Spanish.                       |
| ✓  | Sable Offshore Corp. also sponsors programs that provide general pipeline-related information, including pipeline safety, damage prevention and emergency preparedness and response protocols. These sponsored programs reach local emergency responders/officials, excavators, and administrative municipal officials.                                       |



## Section 3 Emergency Response Actions

### 3.1 Initial Response Procedures

Initial response actions are those immediately taken by local Sable Offshore Corp. personnel to mitigate as much as possible a spill or other incident.

The first company employee on scene will function as the person-in-charge until relieved by a supervisor.

All necessary steps that can be safely performed to control the incident should be taken and not limited by the guidelines provided in this section. The initial response efforts can greatly affect the overall response operation.

The appropriate response to a particular incident may vary depending on the nature and severity of the incident. Without exception, personnel and public safety is the first priority.

#### 3.1.1 Potential Incidents

| Potential Incidents |                                   |
|---------------------|-----------------------------------|
| ✓                   | Oil Spill                         |
| ✓                   | Fire/Explosion                    |
| ✓                   | Gas Release                       |
| ✓                   | Injury / Medical / Rescue         |
| ✓                   | Natural Disaster / Severe Weather |
| ✓                   | Security Incident                 |

**3.1.2 General Response Guidelines**

| General Response Guidelines |  |
|-----------------------------|--|
| ✓                           | Fire and explosion potential always exist.   |
| ✓                           | If you are uncertain about the safety of an area, wear protective gear and if applicable and available, a breathing apparatus when approaching the area. |
| ✓                           | Approach spilled material from an upwind direction, if possible.   |
| ✓                           | Keep non-essential personnel away from scene.  |
| ✓                           | Toxic gases may be released by some spills.  |
| ✓                           | Do not walk into or touch any spilled material. Avoid inhaling fumes, smoke, and vapors, even if no hazardous materials are involved.                    |
| ✓                           | Do not assume that gases or vapors are harmless because of lack of odor.   |
| ✓                           | Check the Safety Data Sheet (SDS) to determine the flammable and toxic characteristics of the spilled material.  |
| ✓                           | Speed is essential in recovery efforts, especially during the initial response always keeping safety in mind.  |
| ✓                           | Determine strategic objectives at the beginning of a spill.  |

**3.1.3 Source Control/Shutdown**

Immediate actions are required at the onset of an emergency response to limit the extent of a release, minimize the potential hazard to human health and the environment, and implement an effective response. It is also important to act decisively to create a professional working atmosphere among Sable Offshore Corp. and regulatory authority personnel and public officials. This section is intended to provide guidance for determining the appropriate initial response and notification actions that should be carried out in the event of a release or other emergency incident.

A list of the key internal Sable Offshore Corp. and federal agency notifications are provided in each Geographic Specific Volume II.

Local, State, and Federal notification requirements are provided in each Geographic Specific Volume II.

### 3.2 Immediate Response Actions Checklist

| Immediate Response Actions Checklist                   |  |   |                           |
|--|--|---|---------------------------|
| Response Action <sup>1</sup>                           |  | ✓ | Date/Time<br>Action Taken |
| <b>Immediate Response Actions - From Safe Distance</b> |  |   |                           |
| 1  | <b>QUICKLY ASSESS INCIDENT AND SAFETY HAZARD</b> - Use LPSA Process, Assess, Analyze, Act. Note all the following. Size, rate, type, cause, fire/explosion hazard, spill/vapor movements, and health risk, establish a safe perimeter, evaluate appropriate PPE, and consider site isolation and/or public evacuations. Call Fire Dept. and Police Dept. Develop initial Site Safety and Health Plan (SSHP). |   |                           |
| 2  | <b>MAKE ALL REQUIRED NOTIFICATIONS</b> (internal, external, state, federal). <b>NRC must be notified immediately, within 30 minutes.</b>   |   |                           |
| 3  | <b>ELIMINATE IGNITION SOURCES</b> - Shut off motors, electrical pumps, electrical power, open flames, welding, etc. in hazardous areas.  |   |                           |
| 4  | <b>IF SAFE, CONTROL SOURCE</b> - Shut down pumps, close valves, etc.   |   |                           |
| 5  | <b>ENSURE PERSONNEL SAFETY</b> - Sound alarm, evacuate, if necessary, account for all personnel, and secure release area.  |   |                           |
| 6a   | <b>INITIATE SPILL/RELEASE CONTROL</b> (On land-if applicable) – Block storm drains (if present), construct containment/diversion berms, apply sorbents, etc.   |   |                           |
| 6b   | <b>INITIATE SPILL /RELEASE CONTROL</b> (On water-if applicable) – Deploy additional boom, deploy skimmer, track spill movements, etc.  |   |                           |
| <b>Supplemental Response Actions</b>                   |  |   |                           |
| 7  | <b>RE-ASSESS INCIDENT PARAMETERS AND RESPONSE</b> - Estimate discharge volume/rate, effectiveness of source/ spill control operations, air monitoring, spill/vapor movements, safety/environmental concerns, weather/hydrographic conditions, etc.   |   |                           |
| 8  | <b>CONTINUE MITIGATION/CONTAINMENT ACTIONS</b> , including ongoing revisions of the written SSHP.  |   |                           |
| <b>Notification/Documentation</b>                      |  |   |                           |
| 9  | <b>ACTIVATE NATURAL RESOURCE DAMAGE ASSESSMENT (NRDA) STUDIES</b> , if required.   |   |                           |
| 10   | <b>INITIATE DOCUMENTATION PROCEDURES</b> - Document all response actions taken, including notifications, and agency/public interactions.   |   |                           |

#### Immediate Response Actions Checklist

| Response Action <sup>1</sup>                |  | ✓ | Date/Time<br>Action Taken |
|---|--|---|---------------------------|
| <b>Major Spill/Release Response Actions</b> |  |   |                           |
| 11  | <b>ACTIVATE ESG AND ARRT IMPLEMENT ICS</b>   |   |                           |
| 12  | <b>IDENTIFY EQUIPMENT, PERSONNEL, AND LOGISTICAL SUPPORT REQUIREMENTS FOR SPILL/RELEASE OPERATIONS</b> - Containment, protection, recovery, and cleanup.   |   |                           |
| 13  | <b>DEVELOP AN INCIDENT ACTION PLAN</b> - Maximize utilization of available equipment, personnel, and logistics to limit the area affected by the spill/release and the associated impacts. Establish clear objectives, strategies and prioritize tactical actions. |   |                           |
| 14  | <b>IMPLEMENT INCIDENT ACTION PLAN</b> - In the established order of priority. Also plan for the effective utilization of additional equipment and supplies as they are required and become available.  |   |                           |
| 15  | <b>ESTIMATE WASTE HANDLING AND INTERIM STORAGE REQUIREMENTS</b> - Based on quantity released, recovery capacity, areas affected, degree of impact, etc.  |   |                           |
| 16  | <b>ARRANGE FOR INTERIM SOLID AND LIQUID WASTE HANDLING AND STORAGE</b> - Pumps, barges, portable tanks, available tankage at facility, debris boxes, interim waste storage cells, heavy equipment, hauling/towing, permits, etc.                                   |   |                           |
| 17  | <b>INITIATE LOGISTICAL SUPPORT FOR RESPONSE OPERATIONS</b> - Transportation, lodging, meals, supplies, portable toilets, communications equipment, additional office space, etc.   |   |                           |
| 18  | <b>ARRANGE FOR TRANSPORTATION, TREATMENT, AND/OR DISPOSAL OF RECOVERED MATERIALS AND WASTES</b> - Determine characterization, and transportation requirements for the candidate treatment/disposal facilities.   |   |                           |
| 19  | <b>COMPLETE CLEANUP OPERATIONS AND OBTAIN CLEARANCE FROM REGULATORY AGENCIES</b> - Obtain written agency clearance for each section of contaminated areas as cleanup is completed.   |   |                           |

<sup>1</sup> - Numbers do not represent a priority of response action. Response actions will vary depending on the circumstance of the release.

### 3.3 Oil Spill Response Actions

#### 3.3.1 Equipment Failure

| Equipment Failure   |  |   |                           |
|---|--|---|---------------------------|
| Response Action <sup>1</sup>  |  | ✓ | Date/Time<br>Action Taken |
| 1   | Assess situation/take command. <b>EXERCISE CAUTION.</b>                                      |   |                           |
| 2   | Emergency Shut Down if necessary.  |   |                           |
| 3   | Make necessary notifications.  |   |                           |
| 4   | Evaluate risk of spill and/or fire/explosion and refer to the other checklist, as necessary. |   |                           |
| <sup>1</sup> - Numbers do not represent a priority of response action. Response actions will vary depending on the circumstance of the release. |  |   |                           |

#### 3.3.2 Tank Failure/Overfill

| Tank Failure/Overfill   |   |   |                           |
|---|---|---|---------------------------|
| Response Action <sup>1</sup>  |   | ✓ | Date/Time<br>Action Taken |
| 1   | Assess situation/take command. <b>EXERCISE CAUTION.</b>   |   |                           |
| 2   | Immediately switch to backup tank if possible.  |   |                           |
| 3   | If person down, notify the FLS/TPIC and rescue/evacuate threatened person (if safe to do so).   |   |                           |
| 4   | Eliminate all ignition sources onsite.  |   |                           |
| 5   | Call 911: <ul style="list-style-type: none"> <li>Your Name, Company, and Phone Number</li> <li>Type/Location of Incident</li> <li>Route to approach</li> <li>Number and type of injuries</li> </ul> |   |                           |
| 6   | Ensure valves on secondary containment are closed.  |   |                           |
| 7   | Assign person to direct emergency response vehicles.  |   |                           |
| 8   | Monitor area with gas detectors to determine vapor area <sup>2</sup> .  |   |                           |
| 9   | Inspect equipment and ensure it is in proper working order.   |   |                           |
| 10  | Make necessary notifications.   |   |                           |
| 11  | Brief fire department upon arrival.   |   |                           |
| 12  | Arrange for inspection of tank as soon as possible.   |   |                           |
| 13  | Notify local clean-up contractors, as necessary.  |   |                           |
| <sup>1</sup> - Numbers do not represent a priority of response action. Response actions will vary depending on the circumstance of the release. |   |   |                           |



#### 3.3.3 Piping Leak/Rupture

| Piping Leak/Rupture   |   |   |                           |
|---|---|---|---------------------------|
| Response Action <sup>1</sup>  |   | ✓ | Date/Time<br>Action Taken |
| 1   | Assess situation/take command. <b>EXERCISE CAUTION.</b>   |   |                           |
| 2   | Shut down pumps, close block valves, and shut down affected line.   |   |                           |
| 3   | If person down, notify the FLS/TPIC and rescue/evacuate threatened person (if safe to do so).   |   |                           |
| 4   | Eliminate all ignition sources onsite.  |   |                           |
| 5   | Call 911: <ul style="list-style-type: none"> <li>Your Name, Company, and Phone Number</li> <li>Type/Location of Incident</li> <li>Route to approach</li> <li>Number and type of injuries</li> </ul> |   |                           |
| 6   | Contain spill (if safe to do so).   |   |                           |
| 7   | Assign person to direct emergency vehicles.   |   |                           |
| 8   | Monitor area with gas detectors to determine vapor area.  |   |                           |
| 9   | Make necessary notifications.   |   |                           |
| 10  | Brief fire department upon arrival.   |   |                           |
| 11  | Coordinate deployment of containment and recovery equipment.  |   |                           |
| 12  | Designate staging areas for personnel and equipment.  |   |                           |
| 13  | Coordinate activities of local clean-up contractors.  |   |                           |
| 14  | Set up Command Post, if warranted.  |   |                           |
| 15  | Ensure safety of personnel involved in spill response activities.   |   |                           |
| 16  | Caution against smoking, use of flash cameras, or other sources of ignition.  |   |                           |
| 17  | Keep persons not involved in response at least 300 ft. from spilled oil.  |   |                           |
| 18  | Brief agency personnel on arrival.  |   |                           |
| <sup>1</sup> - Numbers do not represent a priority of response action. Response actions will vary depending on the circumstance of the release. |   |   |                           |

### 3.3.4 Failure of Transfer Equipment

| Failure of Transfer Equipment   |   |                           |
|---|---|---------------------------|
| Response Action <sup>1</sup>  |   | Date/Time<br>Action Taken |
| 1   | Assess situation/take command. <b>EXERCISE CAUTION.</b>   |                           |
| 2   | Shut off Source of Supply/Emergency Shut Down if necessary and sound alarm.   |                           |
| 3   | If person down, notify Person-In-Charge and rescue/evacuate threatened person (if safe to do so) <sup>2</sup> .   |                           |
| 4   | Eliminate all ignition sources onsite.  |                           |
| 5   | Call 911: <ul style="list-style-type: none"> <li>Your Name, Company, and Phone Number</li> <li>Type/Location of Incident</li> <li>Route to approach</li> <li>Number and type of injuries</li> </ul> |                           |
| 6   | Assure fire systems are activated.  |                           |
| 7   | Monitor area with gas detectors to determine vapor area.  |                           |
| 8   | Assign person to direct emergency response vehicles and to guard gates.   |                           |
| 9   | Make necessary notifications.   |                           |
| 10  | Coordinate deployment of onsite containment and recovery equipment.   |                           |
| 11  | Designate staging areas for personnel and equipment, as needed.   |                           |
| 12  | Coordinate activities of local clean-up.  |                           |
| 13  | Set up Command Post if warranted.   |                           |
| 14  | Ensure safety of personnel involved in spill response activities.   |                           |
| 15  | Maintain radio communication with vessel personnel.   |                           |
| 16  | Brief U.S. Coast Guard and other agency personnel on arrival.   |                           |
| <sup>1</sup> - Numbers do not represent a priority of response action. Response actions will vary depending on the circumstance of the release. |   |                           |

### 3.4 Fire/Explosion

| Fire/Explosion               |  |   |                           |
|------------------------------|--|---|---------------------------|
| Response Action <sup>1</sup> |  | ✓ | Date/Time<br>Action Taken |
| 1                            | Assess situation/take command. <b>EXERCISE CAUTION.</b>  |   |                           |
| 2                            | Emergency Shut Down if necessary.  |   |                           |
| 3                            | If person down, notify FLS/TPIC and rescue/evaluate threatened person (if safe to do so) <sup>2</sup> .  |   |                           |
| 5                            | Call 911: <ul style="list-style-type: none"> <li>Your Name, Company, and Phone Number</li> <li>Type/Location of Incident</li> <li>Route to approach</li> <li>Number and type of injuries</li> </ul>  |   |                           |
| 6                            | Attempt to extinguish fire (if safe to do so and incipient stage).   |   |                           |
|                              | <b>Combustible Material Fires</b><br>For example, clothing, rags, wood, ropes, and paper fires. The cooling by large quantities of water, or extinguishing agent containing a large portion of water is of primary importance when fighting fires of this nature. Cooling of the source and surrounding areas should continue long enough to ensure that no re-ignition is possible. |   |                           |
|                              | <b>Flammable Liquid Fires</b><br>For example, petroleum cargo or bunkers. Cut off the flow of liquid from the source as quickly as possible. The exclusion of air by smothering or blanketing is necessary for fighting such fires; that is, by use of foam or water fog. Precautions against re-ignition should be observed.  |   |                           |
|                              | <b>Electrical Fires</b><br>Require the use of non-conductive extinguishing agent when fighting fires in electrical equipment; that is, CO <sub>2</sub> or dry chemical powder.   |   |                           |
| 7                            | Eliminate all ignition sources onsite.   |   |                           |
| 8                            | <b>For fire at dock with or without a vessel, if applicable:</b> <ul style="list-style-type: none"> <li>Shutdown dock operations</li> <li>Activate dock fire protection system, where applicable.</li> <li>Monitor dock from a safe distance</li> </ul>  |   |                           |
| 9                            | Assign person to direct emergency response vehicles.   |   |                           |
| 10                           | Make necessary notifications.  |   |                           |
| 11                           | Brief fire department upon arrival.  |   |                           |
| 12                           | Conduct air monitoring to ensure safety of personnel and appropriate PPE is required to respond. (For additional information, see the Site Safety and Health Plan and/or the Safety Coordinator.)  |   |                           |

#### Fire/Explosion

| Response Action <sup>1</sup>  |   | ✓ | Date/Time<br>Action Taken |
|---|---|---|---------------------------|
| 13  | Evacuate all non-essential personnel, if necessary. Coordinate evacuation of nearby residents with local responders, if applicable. |   |                           |
| 14  | Inspect system integrity ( <sup>2</sup> ).  |   |                           |
| 15  | Check off-site areas for damage.  |   |                           |
| <sup>1</sup> - Numbers do not represent a priority of response action. Response actions will vary depending on the circumstance of the release. |   |   |                           |

### 3.5 Natural or Other Gas Release Response Actions

#### 3.5.1 Gas Release

#### Gas Release

| Response Action <sup>1</sup>  |   | ✓ | Date/Time<br>Action Taken |
|---|---|---|---------------------------|
| 1   | Assess situation/take command. <b>EXERCISE CAUTION.</b>             |   |                           |
| 2   | Make necessary notifications.                                       |   |                           |
| 3   | Immediately stop work activities.                                   |   |                           |
| 4   | Shut down and isolate flow.   |   |                           |
| 5   | Evacuate the area.  |   |                           |
| 6   | Eliminate sources of ignition.                                      |   |                           |
| 7   | All equipment used when handling product must be grounded.          |   |                           |
| 8   | Water spray may reduce vapors or divert vapor cloud.                |   |                           |
| 9   | If exposed, make sure exposed clothing is removed and decon occurs. |   |                           |
| <sup>1</sup> - Numbers do not represent a priority of response action. Response actions will vary depending on the circumstance of the release. |   |   |                           |

#### 3.5.2 Gas Release in / Near a Building

#### Gas Release in / Near a Building

| Response Action <sup>1</sup> |  | ✓ | Date/Time<br>Action Taken |
|------------------------------|--|---|---------------------------|
| 1                            | Assess situation/take command. <b>EXERCISE CAUTION.</b>      |   |                           |
| 2                            | Immediately stop work activities.                            |   |                           |
| 3                            | Protect public first, then facilities.                       |   |                           |
| 4                            | Safely evacuate building if gas is detected inside building. |   |                           |

#### Gas Release in / Near a Building

| Response Action <sup>1</sup>                           | ✓ | Date/Time<br>Action Taken |
|--|---|---------------------------|
| 5 Always look and listen for any signs of escaped gas. |   |                           |
| 6 All open flames are to be extinguished.              |   |                           |
| 7 Determine leak severity.                             |   |                           |
| 8 Do not enter building with audible leaking gas.      |   |                           |
| 9 Test the environment to determine safe entry.        |   |                           |
| 10 Evacuate people from adjacent buildings.            |   |                           |

<sup>1</sup> - Numbers do not represent a priority of response action. Response actions will vary depending on the circumstance of the release.

### 3.6 Injury/Medical Emergency Response Actions

Upon notification of an injury, the TPIC/Operator will assess the medical condition of the person(s) involved. If circumstances are such that there are risks to others, a designated emergency signal shall be activated, and all site personnel shall assemble immediately for further instructions. Activities shall stop until the risk is removed or minimized.

#### Medical Emergency Checklist:

| Response Action <sup>1</sup>   | ✓ | Date/Time<br>Action Taken |
|--|---|---------------------------|
| ✓ Call <b>911</b> to arrange for ground or air ambulance support. <sup>2</sup> Provide the 911 dispatch the following information: <ul style="list-style-type: none"> <li>• Your name and location</li> <li>• Type of medical emergency</li> <li>• Name and location of the injured</li> <li>• Condition of injured</li> <li>• Contact phone number</li> </ul> |   |                           |
| ✓ Transport injured to a local hospital or physician   |   |                           |

<sup>1</sup> - Numbers do not represent a priority of response action. Response actions will vary depending on the circumstance of the release.

<sup>2</sup> - Evacuation of seriously ill or injured persons should be conducted by professionally trained persons. **Transportation by Company or private vehicle should be discouraged, unless advised to do so by supervision.** All medical emergencies should be documented, and applicable emergency notifications completed.

The onsite Company personnel or an Emergency Medical Technician (EMT) shall initiate the appropriate first aid and contact should be made for an ambulance and arrangements made with the designated medical facility (if required).



### 3.7 Severe Weather/Natural Disaster Response Actions

#### 3.7.1 Tornado

##### Tornado Definitions

|                 |   |
|-----------------|---|
| Tornado Watch   | Conditions are right for the formation of a tornado. Continue monitoring weather alerts.            |
| Tornado Warning | A tornado has been sighted but is not in the area at this time. Continue monitoring weather alerts. |
| Tornado Alert   | A tornado has been sighted in the immediate area. Take cover immediately                            |

##### Tornado

| Response Action <sup>1</sup>  |   | ✓ | Date/Time<br>Action Taken |
|---|---|---|---------------------------|
| <b><i>Be aware of changing weather conditions</i></b>   |   |   |                           |
| 1   | Assess situation/take command. <b>EXERCISE CAUTION.</b>   |   |                           |
| 2   | Announce over Company radio or by cellular phone.   |   |                           |
| 3   | Alert all personnel of condition.   |   |                           |
| 4   | If time permits, all personnel should assemble at an inside room in a designated Facility for shelter.    |   |                           |
| 5   | Account for all Personnel.  |   |                           |
| 6   | Begin search and rescue if any personnel is missing.  |   |                           |
| 7   | If time does not permit, seek shelter in low level area away from glass.                                  |   |                           |
| 8   | Make certain that all personnel are aware of the condition.   |   |                           |
| 9   | FLS/TPIC or designee will shut down (5 minutes) if safe to do so and notify Area manager as time permits. |   |                           |
| <b><i>Immediately after the storm</i></b>   |   |   |                           |
| 10  | Account for personnel.  |   |                           |
| 11  | Survey for damages.   |   |                           |
| 12  | Initiate team for any repairs.  |   |                           |
| 13  | Evaluate risk of spill and/or fire/explosion and refer to the other checklist, as necessary.              |   |                           |
| <sup>1</sup> - Numbers do not represent a priority of response action. Response actions will vary depending on the circumstance of the release. |   |   |                           |

Various tank inspections are performed in addition to normal rounds.

### 3.7.2 Flood

| Flood   |  |   |                           |
|---|--|---|---------------------------|
| Response Action <sup>1</sup>  |  | ✓ | Date/Time<br>Action Taken |
| <b><i>Be aware of changing weather conditions</i></b>   |  |   |                           |
| 1   | Assess situation/take command. <b>EXERCISE CAUTION.</b>                                      |   |                           |
| 2   | Announce over Company radio or by cellular phone.  |   |                           |
| 3   | Alert all personnel of condition.  |   |                           |
| 4   | Establish communications with the Field office for weather updates.                          |   |                           |
| 5   | Assess situation and exercise caution.   |   |                           |
| 6   | Emergency Shut Down, if necessary.   |   |                           |
| 7   | Fill tanks to an adequate level to prevent flotation.  |   |                           |
| 8   | Tape windows to prevent blowouts.  |   |                           |
| 9   | Tie down all objects that float.   |   |                           |
| 10  | Pump out all sumps.  |   |                           |
| 11  | Disconnect electric power.   |   |                           |
| 12  | Do not receive into or pump out of any tank during this time.                                |   |                           |
| 13  | Provide relief for incoming lines should a malfunction occur.                                |   |                           |
| 14  | Keep firewall drains on serviceable tanks closed.  |   |                           |
| <b><i>Immediately after the storm</i></b>   |  |   |                           |
| 10  | Account for personnel.   |   |                           |
| 11  | Survey for damages.  |   |                           |
| 12  | Initiate team for any repairs.   |   |                           |
| 13  | Evaluate risk of spill and/or fire/explosion and refer to the other checklist, as necessary. |   |                           |
| <sup>1</sup> - Numbers do not represent a priority of response action. Response actions will vary depending on the circumstance of the release. |  |   |                           |

### 3.7.3 Cold Weather/Ice and Snow

See Section 15 of the [ExxonMobil Offshore Oil Spill Response Field Manual](#) for information regarding spill response in cold regions.

#### 3.7.4 Earthquake/Seismic Event

A determination will be made on whether the pipeline has potentially been affected by an earthquake. If the determination has been made that the possibility exists that the pipeline might have been damaged, then operations will cease, and an inspection of the line will be made.

#### Earthquake/Seismic Event Considerations

|   |                          |
|---|--------------------------|
| ✓ | Distance from epicenter  |
| ✓ | Pipeline characteristics |
| ✓ | History                  |

There are two scales that the USCG utilizes. The Richter scale (the one most familiar with the public) and the Modified Mercalli Intensity Scale. The [Richter scale](#) measures the energy contained in an earthquake and the [Modified Mercalli Intensity Scale](#) measures what people experience and feel. Any earthquake that registers in magnitude of 6.0 or higher has the potential of causing damage to the pipeline. Therefore, any earthquake that registers a magnitude of 6.0 will require the pipeline to be inspected for any possible seismic damage, and if so, repairs effected accordingly prior to pipeline restart.

#### Earthquake/Seismic Event

| Response Action <sup>1</sup>        |   | ✓ | Date/Time<br>Action Taken |
|-------------------------------------|---|---|---------------------------|
| <b><i>During the Earthquake</i></b> |   |   |                           |
| 1                                   | Stay indoors, duck under heavy object such as a desk or brace yourself in a doorway; avoid windows.                                 |   |                           |
| 2                                   | If driving, attempt to keep vehicle away from overhead objects/structures. If possible, stop vehicle and drop to the seat or floor. |   |                           |
| 3                                   | Avoid overhead power lines if possible.   |   |                           |
| <b><i>After the Earthquake</i></b>  |   |   |                           |
| 4                                   | Assess situation/take command. <b>EXERCISE CAUTION.</b>   |   |                           |
| 5                                   | Shut down pipeline, isolate station to extent possible.   |   |                           |
| 6                                   | Disconnect electrical power source and shut off any natural gas supplies if damage.   |   |                           |
| 7                                   | Local employees dispatched to close block valves should be very cautious of any power lines near block valves.                      |   |                           |
| 8                                   | Check communication phones/radio.   |   |                           |
| 9                                   | Managers should establish employee call in/meeting place procedures.  |   |                           |

| Earthquake/Seismic Event  |  |   |                           |
|---|--|---|---------------------------|
| Response Action <sup>1</sup>  |  | ✓ | Date/Time<br>Action Taken |
| 10  | Fill available containers with drinking water as soon as possible.   |   |                           |
| 11  | Affected local employees need to verify the safety of their families and secure their homes before reporting to work. Unaffected employees should report to work for assignment as soon as possible.   |   |                           |
| 12  | The pipeline must be thoroughly inspected before the pipeline is restarted, including pumping station piping. Fly pipeline right-of-way in affected area and slowly re-pressurize line after inspection indicates start-up is possible.                                    |   |                           |
| 13  | Company personnel should realize that they will very likely be left to their own resources for the first few days after a major earthquake. We will rely on "importing" response personnel and equipment as necessary to support emergency response and repair activities. |   |                           |
| 14  | Evaluate risk of spill and/or fire/explosion and refer to the other checklist, as necessary.   |   |                           |
| <sup>1</sup> - Numbers do not represent a priority of response action. Response actions will vary depending on the circumstance of the release. |  |   |                           |

### 3.8 Security Incident Response Actions

All security incidents will be handled per Company policies and procedures. The site will reference the Facility Security Plan that is maintained at each site. The manual provides a quick resource of security related guidelines, procedures, and awareness to employees. The guidelines are not intended to be all-inclusive but should cover most of the security-related issues.

Sable Offshore Corp. has had a longstanding commitment to the protection of its people, facilities, information, and other assets. Sable Offshore Corp. continuously reinforces the importance of security and implements appropriate and balanced security measures leveraging existing corporate systems. Appropriate and balanced security measures consider perceived risks, the cost and practicality of potential countermeasures, relationships with the communities in which we operate, compliance with applicable laws, and recognition of social norms. Facilities are designed, procured, constructed, commissioned, and run in accordance with sound security practices that balance risk, cost effectiveness, and performance. Security equipment and processes are designed to deter, detect, delay, and respond to threats.

Each employee receives security awareness training through computer-based training and classroom-based training where applicable. Employees are expected to be familiar with P Sable Offshore Corp.'s written policy regarding bomb threats. Bomb threat checklists should be near all phones and available in the event a bomb threat is received.

### **3.9 Notification Procedures**

A spill incident or a substantial threat of an incident will trigger a set of prioritized internal and external notifications. A directory of telephone numbers for Sable Offshore Corp.'s personnel, facilities, offices, response contractors; and government agencies is also provided in the site-specific sections.

The notification procedures must be followed to completion. If the responsible person is unable to reach the person listed, then the responsible person must make the notifications (if any) for that person. The incident report form will be used to provide accurate spill incident information for the initial and follow-up notifications to the National Response Center (NRC) for federal, state, and local agencies. Copies of this form will be kept in the office of the Terminal/Facility Supervisor and the applicable Control Office/Center. Initial notifications will not be delayed, pending collection of all information on the form. All required government agency notifications will be made to the NRC as soon as possible, within 30 minutes, after the discovery of the spill or threatened discharge of product.

#### **3.9.1 Internal Notifications**

Internal notifications will be made per the Incident Notification Investigation and Sharing Guide (INIS).

##### **3.9.1.1 Field Personnel**

Any person who observes or becomes aware of a release shall immediately report the incident to the FLS/TPIC.

##### **3.9.1.2 Emergency Response Team (ERT)**

The Emergency Response Teams may be activated as a group or individually, depending upon the size, location, nature, and complexity of the incident and at the discretion of the On-Scene IC/QI Individual.

The response organization can provide trained personnel, services, and response equipment on a 24 hour per day basis and can sustain these capabilities for up to 7 days or longer.

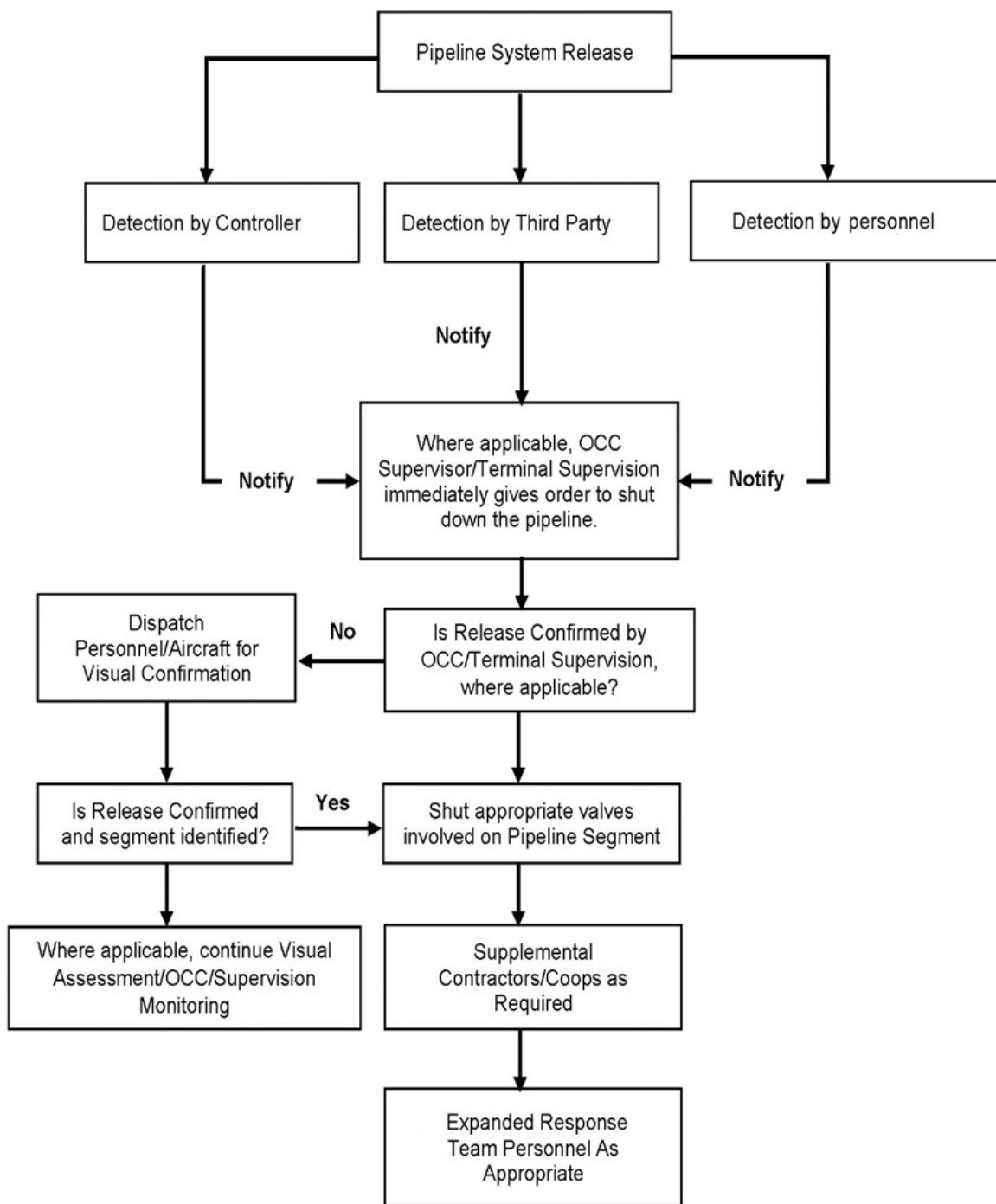
The Emergency Response Team is designed to manage the response to any emergency involving system operations. The organizational structure of the ERT operates within a tiered response framework, which allows for the mobilization of resources at varying levels as dictated by incident circumstances.

##### **3.9.1.3 Field Notifications**

1. Call 911 or local emergency phone number for the jurisdiction affected by the incident.
2. Notify FLS/TPIC.
3. Begin Internal Notifications



**3.9.1.4 Internal Notification Flowchart**



**3.9.2 External Notifications**

The FLS/TPIC or the designee will determine which agencies/organizations/individuals are to be notified depending upon the nature of the emergency.

Additional notification information, including telephone numbers is contained in Volume II.

**3.9.3 Mandatory Notifications**

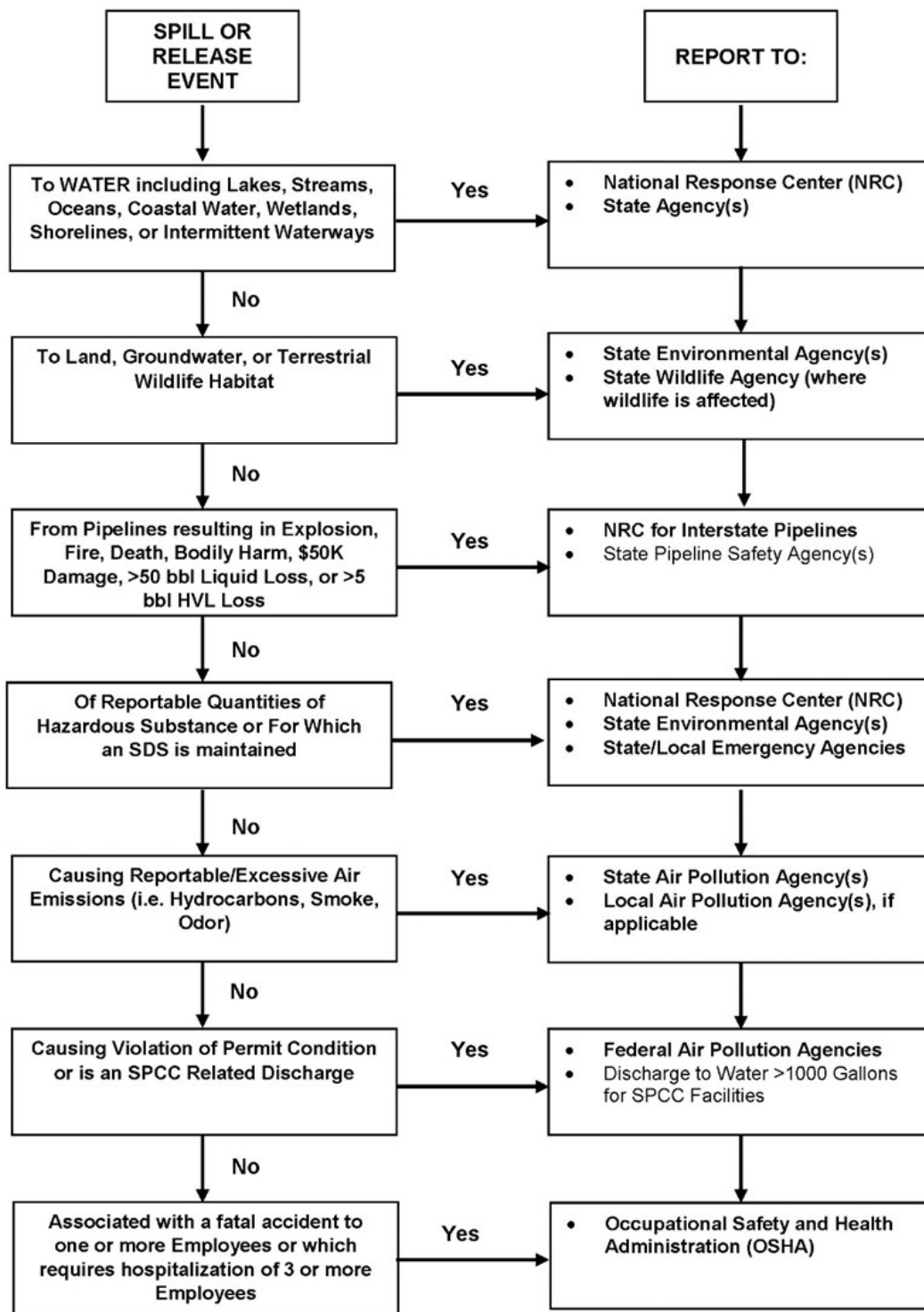
The priority of sequence of government notifications for a major incident would be as follows:

1. National Response Center (NRC)
2. State Emergency Response Commission/Agency (SERC)
3. Environmental Protection Agency (EPA)

Concurrent with these external notifications, Sable Offshore Corp.'s personnel, and the Oil Spill Removal Organization (OSROs) would be called to report to the site of the incident. Telephone numbers and alternate means of reaching personnel or organizations are listed below.

Additional notification information, including telephone numbers is contained in Volume II.

#### 3.9.4 External Notification Flowchart



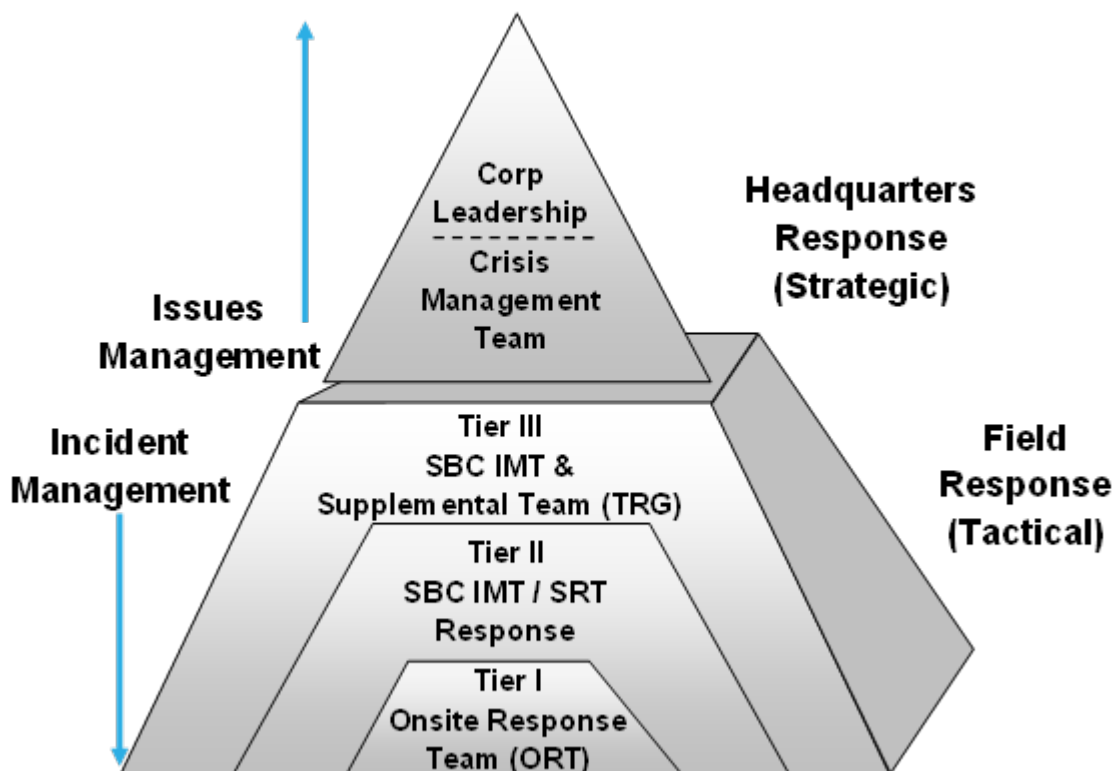
## Section 4 Incident Management

This Section describes specific duties and responsibilities of the members of the IMT. This section should be used as a guide; specific circumstances during an incident response may require different actions. Because of the flexibility of the Incident Command System (ICS), certain duties, responsibilities and position titles listed here may not be needed in all circumstances and may change with time as the response evolves.

Sable Offshore Corp.'s response team consists of trained personnel that will respond to all Company emergency incidents. Trained and qualified OSRO personnel will be called upon to fill ICS / UCS roles as required.

### 4.1 Pacific Tier Structure

Sable Offshore Corp. has established an emergency response organization to respond to an oil spill from any of its assets. The design of the response organization is based on the Incident Command System (ICS), a crisis management system now widely used by private and public emergency response organizations because it provides the capability and flexibility to respond to a wide range of emergency incidents taking an "All Hazards" approach. Personnel assigned specific positions in the response organization are required to be thoroughly familiar with their roles and responsibilities and participate in specified training programs and exercises simulating oil spill events.



**Pacific Emergency Response Tiers**

|                 |   |
|-----------------|---|
| <b>Tier I:</b>  | Equipment and Onsite Response Team to respond to small incidents, or Tier I events, are maintained at our facilities.   |
| <b>Tier II</b>  | If an incident requires response capabilities beyond those maintained on our facility, then we would activate the SBC IMT and OSRO, as needed. SBC IMT Personnel can be supplemented with personnel from Sable Offshore Corp.'s Houston Office and The Response Group, as needed. |
| <b>Tier III</b> | For a major event that is a Tier III response, the full IMT and OSRO will be activated, among other response contractors as required. The SBC IMT would be supplemented with IMT Personnel from Sable Offshore Corp.'s Houston Office and The Response Group, as needed.          |

**4.2 Qualified Individual**

The Qualified Individual (QI) is responsible for the full implementation of the Facility Response Plan and is trained for these responsibilities. The Designated Alternate provides relief to the QI as needed to ensure that at least one QI is available to respond on a twenty-four (24) hour basis. The QI is responsible for implementing response plans, directing response operations, and resolving internal conflicts that arise during response operations either directly or by qualified designees. It is the responsibility of the QI or his/her designee to coordinate with the Federal On-Scene Coordinator (FOSC) and State On-Scene Coordinator (SOSC) throughout the response.



**QI Responsibilities**

|   |   |
|---|---|
| ✓ | Initiate internal notifications and hazard communication systems to notify all facility personnel.  |
| ✓ | Notify all response personnel, as needed.   |
| ✓ | Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification.  |
| ✓ | Notify and provide necessary information to the appropriate federal, state, and local authorities with designated response roles, including the National Response Center (NRC), State Emergency Response Commission (SERC), and local response agencies.  |
| ✓ | Assess the interaction of the spilled substance with water and/or other substances stored at the Facility and notify response personnel at the scene of that assessment.  |
| ✓ | Assess the possible hazards to human health and the environment due to the release. The assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion). |
| ✓ | Assess and implement prompt removal actions to contain and remove the substance released.   |
| ✓ | Coordinate rescue and response actions as previously arranged with all response personnel.  |
| ✓ | Activate and engage in contracting with OSROs.  |
| ✓ | Use authority to immediately access funding to initiate cleanup activities.   |
| ✓ | Direct cleanup activities until properly relieved of this responsibility.   |
| ✓ | Arrangements will be made to ensure that the QI or Alternate is available on a twenty-four (24) hour basis and can arrive at the Facility in a reasonable time.   |
| ✓ | The Alternate QI will replace the QI in the event of his/her absence and have the same responsibilities and authority.  |

It is the QI's responsibility to first make the appropriate notifications, then to initiate response operations. This individual has absolute authority to obligate any funds necessary to carry out all required and/or directed response activities. This individual will also act as liaison with city, county, state, and federal agencies. The QI is also responsible for directing operations of the Emergency Response Teams, activating the Sable Offshore Corp. Response Teams, as appropriate, and to notify the Public Information Officer, as needed.

The following checklist (the checklist is not all-inclusive) serves as a guide to the On-Scene PIC/QI.

**QI Minimum Duties**

|   |   |
|---|---|
| ✓ | Activate internal alarms and hazard communication systems to notify all facility personnel.   |
| ✓ | Notify all response personnel, as needed.   |
| ✓ | Identify the character, exact source, amount, the extent of the release, and cause of the release, if possible, as well as the other items needed for notification.   |
| ✓ | Notify and provide necessary information to the appropriate federal, state, and local authorities with designated response roles, including the NRC, SERC, and LEPC.  |
| ✓ | Assess the interaction of the spilled substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment.  |
| ✓ | Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion). |
| ✓ | Assess and implement prompt removal actions to contain and remove the substance released.   |
| ✓ | Coordinate rescue and response actions with all response personnel.   |
| ✓ | Use authority to immediately access Company funding to initiate cleanup activities.   |
| ✓ | Direct cleanup activities until properly relieved of this responsibility.   |

### 4.3 Coordinating with Government Agencies

#### 4.3.1 Unified Command (UC)

The Unified Command (UC) is a structure that allows for representing agencies or jurisdictions that share responsibility for the incident management of the response from a single Incident Command Post (ICP). A UC allows agencies with different legal, geographic, and functional authorities and responsibilities to work together effectively without affecting individual agency authority, responsibility, or accountability. In addition to government agencies, participants of the UC may also include organizations, private industries, or owners and operators of waterfront facilities and vessels bringing large amounts of tactical and support resources to the table.

The UC is responsible for the overall management of an incident. The UC directs incident activities including the development and implementation of incident objectives, strategies, and approves ordering and releasing of resources. Under a UC a single coordinated IAP will direct activities. The UC will supervise a single Command and General Staff organization and speak with one voice.

#### Why Establish a Unified Command?

|   |   |
|---|---|
| ✓ | Cross-geographic boundaries (e.g., two states or international boundaries).                                     |
| ✓ | Impact multiple functional responsibilities (e.g., SAR, fire, oil spill, and emergency medical services (EMS)). |
| ✓ | Involve a private industry.   |
| ✓ | Involve a vessel or facility (e.g., Responsible Party (RP) for a pollution threat).                             |
| ✓ | Involve various governmental levels (e.g., Federal, state, tribal, and local).                                  |

#### Unified Command Compositions:

|   |   |
|---|---|
| ✓ | Must be specifically charged by law or ordinance with commanding, coordinating, or managing a major aspect of the incident response.  |
| ✓ | Must have incident or response operations impact on the organization's area of responsibility (AOR).  |
| ✓ | Should have full organization authority to make decisions and execute all the tasks assigned to the IC on behalf of their organization.   |
| ✓ | To keep the UC limited in size and efficient, it is recommended that one federal agency be the lead agency to coordinate activities and actions among the various federal agencies involved; this concept applies to state and tribal representation on the UC as well. |

#### 4.3.2 Interfacing with Local Agencies

##### Methods to Coordinate with Local Agencies

|   |  |
|---|--|
| ✓ | Ensure that the names, addresses, and telephone numbers for the officials are current.   |
| ✓ | Exchange information about responsibilities and resources (both for Sable Offshore Corp. and the officials) available for responding to a given emergency and to discuss (preplan) possible responses to be made during potential emergencies. |
| ✓ | Provide the officials with current information on all Sable Offshore Corp. facilities within their jurisdiction.   |

In the event of an incident, notifications must be made to the LEPC (Local Emergency Planning Committee). If possible, a single source of contact should be identified within the LEPC. Lines of communication to this source must be established to allow quick contact.

#### 4.4 Incident Command System

Sable Offshore Corp. has adopted the Nation Incident Management System (NIMS) and Incident Command System (ICS) as outline in :

- [Homeland Security Presidential Directive Five \(HSPD-5\)](#)
- [National Response Framework](#)

##### 4.4.1 ICS Principles

##### ICS Organization

The ICS is applicable across a spectrum of incidents that may differ in terms of size, scope, and complexity because of its:

|   |   |
|---|---|
| ✓ | A modular organizational structure that is extendable to incorporate all necessary elements. Responsibility and performance begin with the incident command element, the IC, and build from the top down. |
| ✓ | Functional unit management structure.   |

##### Functional Areas

ICS is usually organized around five major functional areas:

|   |                         |
|---|-------------------------|
| ✓ | Command.                |
| ✓ | Operations.             |
| ✓ | Planning.               |
| ✓ | Logistics.              |
| ✓ | Finance/administration. |

The IC will establish the sixth functional area, Intelligence, based on the requirement of the situation at hand.

**Transitional Steps**

Some of the more important transitional steps that are necessary to apply ICS in a field incident environment include the following:

- |   |  |
|---|--|
| ✓ | Establish incident facilities as needed, strategically located, to support facility operations.  |
| ✓ | Establish the use of common terminology for organizational functional elements, position titles, facilities, and resources.                                |
| ✓ | Rapidly evolve from providing oral direction to the development of a written Incident Action Plan (IAP).   |
| ✓ | Recognize and anticipate the requirement that organizational elements will be activated and take the necessary steps to delegate authority as appropriate. |

**Modular Extension**

The modular concept is based on the following considerations:

- |   |   |
|---|---|
| ✓ | Deactivate organizational elements no longer required.                                      |
| ✓ | Develop the form of the organization to match the function or task to be performed.         |
| ✓ | Observe recommended span-of-control guidelines.   |
| ✓ | Perform the function of any non-activated organizational element at the next highest level. |
| ✓ | Staff only those functional elements that are required to perform the task.                 |

**Partners**

Several types of agencies could be in the Operations Section, and work together or in combinations depending on the situation, some examples are:

- |   |                            |
|---|----------------------------|
| ✓ | Federal Agencies.          |
| ✓ | State Agencies.            |
| ✓ | Local Government Agencies. |
| ✓ | Emergency services.        |

Other participants may include private individuals, companies, or NGO's, some of which may be fully trained and qualified to participate as partners in the operations section.



#### 4.4.2 Establishing an Incident Command System

##### Establishing an Incident Command System (ICS)

The Incident Command System will be established whenever an emergency has been determined by the IC to warrant activation. The following procedures will be followed when establishing an Incident Command System:

|   |  |
|---|--|
| ✓ | The most senior facility supervisor on site who has received IC training will oversee the Incident System.   |
| ✓ | The IC will designate a Safety Officer (SOFR).   |
| ✓ | Based on the hazardous substances and/or conditions present, the IC will implement appropriate emergency operations.   |
| ✓ | Appropriate respiratory protection will be used.   |
| ✓ | The IC shall limit the number of emergency response personnel at the emergency site, in those areas of potential or actual exposure to incident or site hazards. |
| ✓ | Operations in hazardous areas will be performed using the buddy system in groups of two or more.   |
| ✓ | Backup personnel will stand by with equipment to aid or rescue.  |

#### 4.4.3 IC Planning Cycle

The ICS Planning Cycle is an ordered sequence of actions used to accomplish incident objectives.

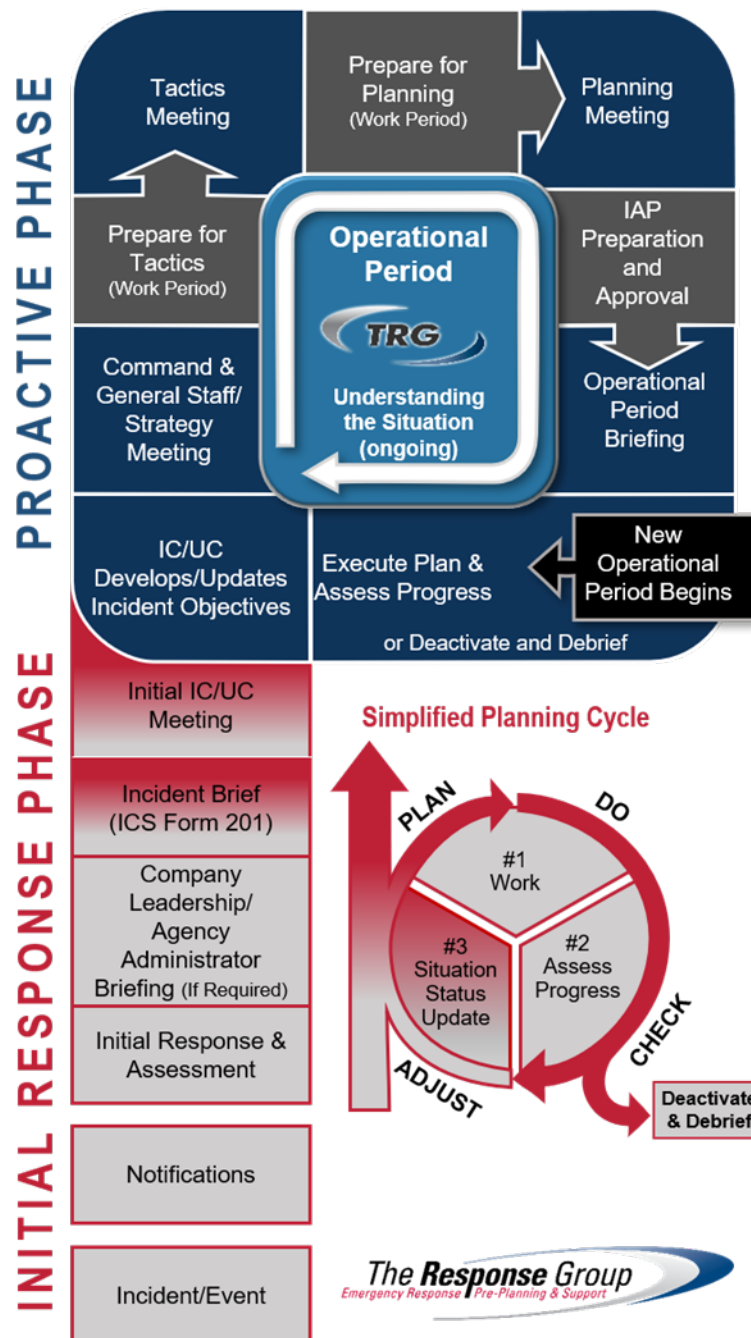
##### Purpose of the ICS Planning Cycle

|   |   |
|---|---|
| ✓ | Activating a defined and scalable response management of each incident's unique characteristics.  |
| ✓ | <ul style="list-style-type: none"><li>Define operational periods for planning and operations purposes to develop measurable strategies that contribute to the mitigation as the incident evolves.</li></ul>   |
| ✓ | <ul style="list-style-type: none"><li>Dissemination response information including:<ul style="list-style-type: none"><li>Response Objectives</li><li>Resource status</li><li>Situation Updates</li><li>Safety requirements and advisories</li><li>Evaluation of current response strategies; and</li><li>Revision of the above as the incident evolves.</li></ul></li></ul> |
| ✓ | <ul style="list-style-type: none"><li>Establish incident objectives guiding the efforts of the IMT.</li></ul>   |

As depicted on the ICS "Planning P" the ICS planning cycle is divided into two phases: Initial Response, and Operational Planning.

In a more complex Tier II or III emergency, planning for the next operational period will take place in the proactive phase. To manage the emergency, a meeting schedule will be set by the IC. A detailed Incident Action Plan (IAP) will be developed through the meetings outlined in the Operational Planning description below. A more detailed description of the ICS Planning Cycle and its phases can be found in the Incident Management Handbook (IMH).

#### 4.4.4 IC Planning Cycle



**4.4.4.1 Initial Response Phase**

The Initial Response phase of an incident is typically the most likely phase of concern because of the dangers associated with the initial approach and assessment of a release.

| Initial Response Phase |  |
|------------------------|--|
| ✓                      | Incident Occurrence/ Discovery         |
| ✓                      | Notification                           |
| ✓                      | Initial Response and Assessment        |
| ✓                      | Initial Incident Briefing ICS 201 form |
| ✓                      | Assessment Meetings                    |
| ✓                      | Initial Objectives Meeting             |

The primary document developed during the Initial Response phase is the ICS 201 Incident Brief, with other ICS forms supplementing as they are developed, and information is gathered. When management of an incident transitions from reactive to proactive response methods, the planning cycle moves to Operational Planning.

**4.4.4.2 Proactive Response Phase**

If the Unified Command determines formal incident planning is needed, the Unified Command presents the Command and General Staff of the IMT with initial incident objectives to move the planning cycle forward. The Operational Planning phase of an incident allows further refinement of planning processes and alignment with day-to-day operations. Control objectives are refined for each operational period and are defined by specific strategies and tactics for response operations. Because an incident response is dynamic and evolves over time, objectives, tactics, resources are re-evaluated for each Operational Period because incident response is dynamic.

| Proactive / Operational Planning Phase |                                   |
|--|-----------------------------------|
| ✓                                      | Objectives Meeting                |
| ✓                                      | Command and General Staff Meeting |
| ✓                                      | Tactics Meeting                   |
| ✓                                      | Planning Meeting                  |
| ✓                                      | Operations Briefing               |

The primary document developed during operational planning is the Incident Action Plan (IAP).

The planning cycle is timed so the operations briefing occurs just before the start of a new Operation

#### **4.5 Roles and Responsibilities**

The information in this section is an overview of the Command and General Staff positions of the Incident Management Team. For information on subordinate positions or in-depth role and responsibility checklists, refer to the Incident Management Handbook (IMH).

All assigned personnel should review common responsibilities in addition to position-specific responsibilities when assigned a position on the IMT. In addition to the position-required ICS forms and response specific documentation, every member of the IMT should maintain an ICS 214a Individual Activity Log.

During initial response when the scope of the incident and/or the necessary incident management resources are unknown, a larger response effort is recommended. Resources may be scaled back when no longer necessary.

Refer to the Incident Management Handbook for a full description of each position, position specific checklists, etc.

##### **4.5.1 Incident Commander (IC) and Deputy IC**

The Incident Commander's (IC) responsibility is the overall management of the incident. On most incidents, the command activity is carried out by a single IC, but, if warranted, the IC will form a Unified Command with a FOSC, SOSC, or LO SC, as appropriate. The IC is selected by qualifications and experience. Deputies should have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time. When span of control becomes an issue for the IC, a Deputy IC/Chief of Staff may be assigned to manage the Command Staff.

##### **4.5.2 Safety Officer**

The Safety Officer (SOFR) function is to develop and recommend measures for assuring personnel safety and to assess and/or anticipate hazardous and unsafe situations. Only one primary SOFR will be assigned for each incident. The SOFR may have specialists, as necessary, and the assistants may also represent assisting agencies or jurisdictions. Safety assistants may have specific responsibilities, such as air operations, hazardous materials, etc.

During the initial response phase, the ICS 201-5 form is used to ensure hazards are identified, evaluated, and managed. The ICS 201-5 is typically used for a Tier I response. The ICS 201-5 form can be supported by attachments such as the released product SDS and other topics at the Safety Officers discretion. In a Tier I response the safety officer transitions to the ICS 208 form at their discretion.



The Tier II response would typically use the SDS, ICS 208 Site Safety Plan (SSP), and Medical Plan forms. The ICS 201-5 form would be in place until the Tier II Safety team can transition from the Tier I team. The ICS 208 form can also be supported with attachments of SDS and Medical Plan, at the Safety Officers discretion. When a response has transitioned to the "project phase" the project is usually turned over to a remediation project group. At that time an SSP will be developed based on Company safety and health procedures.

#### **4.5.3 Public Information Officer**

The Public Information Officer (PIO) is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations. Only one primary PIO will be assigned for each incident, including incidents operating under a Unified Command (UC) and multiple jurisdiction incidents. The PIO may also have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. Agencies have different policies and procedures relative to the handling of public information.

#### **4.5.4 Liaison Officer**

Incidents that are multi-jurisdictional or have several governmental agencies involved, may require the establishment of the Liaison Officer (LOFR) position on the Command Staff. Only one primary LOFR will be assigned for each incident, including incidents operating under UC and multi-jurisdiction incidents. The LOFR may have assistants as necessary, and the assistants may also represent other agencies or jurisdictions.

#### **4.5.5 Legal Officer**

The Legal Officer is responsible for providing advice and direction on all matters of a legal nature including claims, legal requirements relating to the emergency response, investigations, natural Damage Assessment (NRDA), major procurement contracts, insurance coverage, and review of information release to the media, government agencies, and the public.

#### **4.5.6 Intelligence/Security Officer**

The responsibility of the Intelligence/Security Officer is to provide Command intelligence information that can have a direct impact on the safety of response personnel and influence the disposition of security assets involved in the response.

#### **4.5.7 Operations Section**

The Operations Section Chief (OSC), a member of the General Staff, is responsible for the management of all operations directly applicable to the primary mission. Assignment as the OSC will be based on qualifications and experience.

The OSC activates and supervises organization elements in accordance with the IAP and directs its execution. The OSC also directs the preparation of Unit operational plans, requests, or releases resources, makes expedient changes to the IAP, as necessary, and reports such to the IC. The OSC may have a Deputy OSC who may be from within the Company or from an



assisting agency. In a more complex incident, the OSC may assign a Deputy OSC to supervise on-scene operations.

#### **4.5.8 Planning Section**

The Planning Section Chief (PSC), a member of the General Staff, is responsible for the collection, evaluation, dissemination, and use of incident information and maintaining status of assigned resources. Information is needed to 1) understand the current situation; 2) predict the probable course of incident events; 3) prepare alternative strategies for the incident; and 4) submit required incident status reports. The PSC may have a deputy PSC, who may be from an assisting governmental agency. The Deputy PSC should have the same qualifications as the individual for whom they work and must be ready to take over position at any time.

##### **4.5.8.1 Situation Unit Leader**

The Situation Unit Leader (SITL) is responsible for collecting, processing, and organizing incident information relating to the growth, mitigation, or intelligence activities taking place on the incident. The SITL may prepare future projections of incident growth, maps, and intelligence.

##### **4.5.8.2 Resource Unit Leader**

The Resource Unit Leader (RESL) is responsible for maintaining the status of all assigned tactical resources and personnel at an incident. This is achieved by overseeing the check-in of all tactical resources and personnel, maintaining a status-keeping system indicating current location and status of all these resources.

##### **4.5.8.3 Documentation Unit Leader**

The Documentation Unit Leader (DOCL) is responsible for establishing a filing system for the maintenance of accurate, up-to-date incident information that will constitute the incident's legal record. Examples of incident documentation include the Incident Action Plan, incident reports, communication logs, injury claims, situation status reports, etc. Thorough documentation is critical to post-incident analysis. Some of the documents may originate in other sections. This unit shall ensure each section is maintaining and providing appropriate documents for inclusion in the incident file. The DOCL will, after the response is terminated, provide the IC the complete set of incident files to store for legal, analytical, and historic purposes. In the absence of a Historian, the DOCL will prepare meeting minutes, track open action items, and maintain the incident event log.

##### **4.5.8.4 Environmental Unit Leader**

The Environmental Unit Leader (ENVL) is responsible for environmental matters associated with the response, including strategic assessment, modeling, surveillance, sensitive area identification, and environmental monitoring and permitting. The ENVL may be staffed or co-staffed by an agency representative as required by state/Provincial policy or the UC.

#### **4.5.9 Logistics Section**

The Logistics Section Chief (LSC), a member of the General Staff, is responsible for providing facilities, services, and material in support of the incident. The LSC participates in the development and implementation of the IAP and activates and supervises the Branches and

Units within the Logistics Section. The LSC may have Deputy LSCs. The Deputy LSC must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time.

#### 4.5.10 Finance Section

The Finance Section Chief (FSC), a member of the General Staff, is responsible for all financial, administrative, and cost analysis aspects of the incident and for supervising members of the Finance/Admin Section. The FSC may have a Deputy FSC. The Deputy FSC must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time.

#### 4.6 Incident Communication

A successful response depends on effective communication. Information from the initial observation of a spill must be quickly brought to the attention of incident responders and applicable regulatory agencies. The Incident Management Team (IMT) must be able to communicate with individuals and teams in the field, coordinate movement of resources, and provide current and accurate situational information to stakeholders and authorities.

Communications during response operations will be facilitated by using existing Sable Offshore Corp. radio and telephone systems.

| Methods for Response Communications   |                               |
|---|-------------------------------|
| Primary Communications  |                               |
| ✓   | Cellular Phones.              |
| ✓   | Satellite Phones.             |
| ✓   | Standard Phone Lines.         |
| ✓   | VHF Radios.                   |
| Secondary Communications  |                               |
| ✓   | Push-to-Talk Cellular Phones. |
| ✓   | Two-way Radios.               |
| ✓   | UHF Portable Radios.          |
| Communication needs beyond primary communication devices will be supplied by Company contracted OSRO's. |                               |

The Communications Unit Leader (COML), under the Logistics Section of the Incident Management Team (IMT), is responsible for establishing, operating, and maintaining an effective communications network for the response. See the Incident Management Handbook (IMH) for a description of the COML's roles and responsibilities.

#### **4.7 Incident Documentation**

Documentation of an incident provides not only a historical account covering the entire period from the commencement of emergency response operations to final post-spill assessment. It also serves as a legal instrument and a means to account for all cleanup costs. Documentation relies heavily upon detection and assessment functions, and together, these functions provide the necessary data on the extent of the spill and the necessity for control measures. While facility personnel oversee this important function, it may be desirable to utilize consultants who can provide overall guidance on the type of data collection required and, where necessary, assist in data collection or provide sampling survey personnel.

##### **4.7.1 ICS Forms**

An important aspect to bear in mind when completing forms and entering data is to use a quantitative system. Avoid relative or arbitrary terms such as large, small, thick, thin, a lot, not much, etc. These qualitative terms can cause confusion and are not comparable between locations and individuals.

To ensure that all pertinent data and information are available for the incident report, documentation should commence immediately upon notification of a spill and should continue until termination of all operations. The Documentation Unit Leader (DOCL) should coordinate all documentation. The DOCL, IC, Deputy IC, directors, and designated support personnel should keep notes on all significant occurrences, including details and time of occurrence.

All ICS forms are available via the Incident Action Plan (IAP) Software™, or at the FEMA ICS Resource Center at <https://training.fema.gov/emiweb/is/icsresource/icsforms/>

##### **4.7.2 IAP Software™**

One of the methods Sable Offshore Corp. utilizes to manage and document a response is the Incident Action Plan (IAP) Software™ developed by The Response Group. The software includes integrated NIMS-compliant Incident Command System (ICS) forms and processes to facilitate incident management throughout all stages of an event.

During the beginning stages of an event, IAP Software™ can be initiated. Any member of the Incident Management Team may do this, but typically is done by the Planning Section.

In the absence of the IAP Software, paper copies of the ICS may be used manually.

#### **4.8 Response Termination & Follow-up Procedures**

Termination activities are divided into three phases: debriefing the incident, post-incident analysis, and critiquing the incident.

Termination activities are divided into three (3) phases:

**Termination Activities**

|   |                         |
|---|-------------------------|
| ✓ | Debriefing the incident |
| ✓ | Post-incident analysis  |
| ✓ | Critiquing the incident |

The extent to which these phases are undertaken depends on the nature and magnitude of the Incident. Even a minor incident could elicit very detailed termination activities. Additionally, some incidents trigger outside agency reporting. These events would trigger the formal termination procedures outlined in this section.

**4.8.1 Debriefing the Incident**

Debriefings should begin as soon as the “emergency” phase of the operation is completed. Ideally, this should be before first responders leave the scene, and it should include the response team, section chiefs, and other key players such as PIO and agency representatives who the IC determines would benefit from being involved.

**Debrief Checklist**

|   |  |
|---|--|
| ✓ | Use safety meeting attendance forms and or memoranda to document the debriefing.   |
| ✓ | Inform responders exactly what hazardous materials they were (possibly) exposed to and the signs and symptoms (if available, provide SDS). |
| ✓ | Identify equipment damage and unsafe conditions requiring immediate attention or isolation for further evaluation.                         |
| ✓ | Assign information-gathering responsibilities for a Post-Incident Analysis and critique.   |
| ✓ | Summarize the activities performed by each section, including topics for follow-up.  |
| ✓ | Reinforce the positive aspects of the response.  |

**4.8.2 Post Incident Analysis**

Post-Incident Analysis (PIA) is a detailed, step-by-step review of the incident to establish a clear picture of the events that took place during the incident.

**General Information**

|   |   |
|---|---|
| ✓ | Assign information-gathering responsibilities for a PIA and critique.   |
| ✓ | Debriefings should begin as soon as the “emergency” phase of the operation is completed. Ideally, this should be before first responders leave the scene, and it should include the hazmat response team, section chiefs, and other key players such as PIO and agency representatives who the IC determines would benefit from being involved. |
| ✓ | Identify equipment damage and unsafe conditions requiring immediate attention or isolation for further evaluation.  |
| ✓ | Inform responders exactly what hazardous materials they were (possibly) exposed to and the signs and symptoms.  |
| ✓ | Summarize the activities performed by each section, including topics for follow-up.   |

*Safety meeting attendance forms and or memoranda may be utilized to document the debriefing.*

The PIA is not the same as investigations conducted to establish the probable cause of the accident for administrative, civil, or criminal proceedings. Those are usually conducted utilizing root cause or HAZOP methodologies. The IC will assign responsibility to an individual(s) to collect information about the response during the debriefing. Additional data may be obtained from Command post logs, incident reports, and eyewitness interpretations.

Once all available data has been assembled and a rough draft report developed, the entire package should be reviewed by key responders to verify the available facts are arranged properly and occurred.

**PIA Key Topics**

|                     |   |
|---------------------|---|
| Command and Control | Was command established and sections organized? Did information flow from operations personnel through Section Chiefs to the IC? Were response objectives communicated to the personnel expected to carry them out? |
| Tactical Operations | Were the tactical options ordered by the IC and implemented by emergency response personnel effective? What worked? What did not?   |
| Resources           | Were the resources adequate for the job? Are improvements needed for apparatus and/or equipment? Were personnel trained to do the job effectively?  |
| Support Services    | Were the support services received from other organizations adequate? What is required to bring support to the desired level?   |



**4.8.3 Critiquing the Incident**

| Elements of a Good Critique |   |
|-----------------------------|---|
| ✓                           | Continued training of skills and techniques.                |
| ✓                           | Pre-planning for significant incidents.                     |
| ✓                           | Sharing information between response entities and agencies. |
| ✓                           | Trust in the response system as being self-correcting.      |
| ✓                           | Willingness to cooperate through teamwork.                  |

A critique leader is assigned. This can be anyone comfortable and effective working in front of a group.

| Critique Leader Role |   |
|----------------------|---|
| ✓                    | Control the critique. Introduce the players and procedures, keep it moving and end on schedule. |
| ✓                    | Ensure that all participants follow the critique rules.   |
| ✓                    | Ensure that each operational group presents their observations.                                 |
| ✓                    | Ensure that specific questions receive detailed answers.  |
| ✓                    | Follow up.  |
| ✓                    | Keep notes of important points.   |
| ✓                    | Sum up the lessons learned.   |

Following the critique, the critique leader should forward written comments to management. They should highlight suggestions for improving response capabilities and alternative solutions. When larger incidents are involved or injuries have occurred, formal reports should be circulated so that everyone in the response system can understand the “lessons learned

## Section 5 Containment, Recovery, and Disposal

### 5.1 Containment and Recovery

After initial response actions have been taken to stop further spillage and the required agencies have been notified, commence spill containment and recovery operations.

First, assess the size and hazards of the spill. The type of oil plus its location and predicted movement will be considered. Based on this assessment, additional cleanup personnel and equipment may be dispatched to the site and deployed to control and contain the spill. Containment boom may be used to surround the spill and contain it. The boom may also be deployed between the spill and environmentally sensitive areas. Booms may also be used in areas of strong currents to deflect or guide the spill to locations where it can more effectively be cleaned up using skimmers, vacuum trucks, or sorbent materials. Cleanup equipment and the material will be used in the manner most effective for rapid and complete cleanup of the spill.

Containment and recovery refer to the techniques or methods that can be employed to contain and recover petroleum spills on water or the containment of petroleum spills flowing overland. Recovery of terrestrial spills is often very similar or uses the same techniques as shoreline cleanup.

#### Containment and Recovery Operations Considerations

|   |   |
|---|---|
| ✓ | Aquatic (water) containment is primarily conducted using oil spill containment booms.   |
| ✓ | Containment is most effective when conducted near the source of the spill where the oil has not spread over a large area and the contained oil is of sufficient thickness to allow effective recovery and/or cleanup. |
| ✓ | Feasibility is generally dependent on the size of the spill, available logistical resources, implementation time, and environmental conditions or the nature of the terrain in the spill area.                        |
| ✓ | Recovery of free petroleum from the ground surface is best achieved by using pumps, vacuum sources, and/or sorbents.  |
| ✓ | Skimmers are usually the most efficient means of recovery of aquatic spills, although pumps, vacuum systems, and sorbents can also be effective, particularly in smaller waterways.                                   |
| ✓ | Terrestrial (land) containment typically involves berms or other physical barriers.   |

## **5.2 Spill Assessment and Tracking**

### **5.2.1 Locating a Spill**

In the event of a significant release of oil, an accurate estimation of the spill's total volume along with the spill location and movement is essential in providing preliminary data to plan and initiate cleanup operations.

As part of the initial response, Sable Offshore Corp. will initiate a systematic search with aircraft, primarily helicopters, to locate a spill and determine the coordinates of the release. If weather prohibits the use of aircraft (fixed-wing, rotor, and or unmanned aerial vehicles/drones), ground assets may be used to conduct search operations.

Aircraft will also be utilized to photograph the spill as often as necessary for operational purposes. The overflight information will assist with estimating the spill size and movement-based upon existing reference points (i.e., oil rigs, islands, familiar shoreline features, etc.).

### **5.2.2 Volume Estimations**

When a spill has been verified and located, the priority issue will be to estimate and report the volume and measurements of the spill as soon as possible. Direct measurements are the preferred method for determining the volume of a spill.

| Direct Measurement Methods |  |
|----------------------------|--|
| ✓                          | Gauging the tank or container to determine volume lost.    |
| ✓                          | Measuring pressure lost over time.                         |
| ✓                          | Determining the pump or spill rate (GPM) and elapsed time. |

When direct measurements methods are not available, spill measurements will be estimated.

Oil spill volume estimations may be determined by direct measurements or by calculations based upon visual assessment of the color of the slick and information related to length and width that can be calculated on existing charts. The appearance of oil on water varies with the oil's type and thickness as well as ambient light conditions.


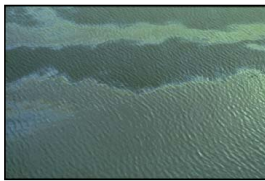


Use this table to calculate the amount of an oil spill.

| Estimated Area*<br>(sq. ft) | Estimated Amount of Spill in GALLONS** |               |              |                       |            |            |
|-----------------------------|--|---------------|--------------|-----------------------|------------|------------|
|                             | Barely Discernible                     | Silvery Sheen | Faint Colors | Bright Bands of Color | Dull Brown | Dark Brown |
| 1,000                       | < 1/8                                  | < 1/8         | < 1/8        | < 1/8                 | < 1/8      | < 1/8      |
| 5,000                       | < 1/8                                  | < 1/8         | < 1/8        | < 1/8                 | < 1/8      | 3/8        |
| 10,000                      | < 1/8                                  | < 1/8         | < 1/8        | < 1/8                 | 1/4        | 2/5        |
| 15,000                      | < 1/8                                  | < 1/8         | < 1/8        | < 1/8                 | 3/8        | 1/2        |
| 20,000                      | < 1/8                                  | < 1/8         | < 1/8        | 1/4                   | 2/5        | 1          |
| 30,000                      | < 1/8                                  | < 1/8         | < 1/8        | 1/4                   | 3/5        | 1          |
| 50,000                      | < 1/8                                  | < 1/8         | 1/4          | 2/5                   | 1          | 3          |
| 100,000                     | < 1/8                                  | 1/4           | 2/5          | 3/4                   | 3          | 5          |
| 300,000                     | 3/8                                    | 3/5           | 1            | 2                     | 6          | 14         |
| 600,000                     | 1/2                                    | 1             | 2            | 4                     | 13         | 29         |
| 900,000                     | 3/4                                    | 2             | 3            | 7                     | 20         | 43         |
| 1,000,000                   | 7/8                                    | 2             | 4            | 7                     | 22         | 47         |
| 1,250,000                   | 1                                      | 2             | 5            | 9                     | 27         | 59         |
| 1,500,000                   | 1                                      | 3             | 5            | 11                    | 32         | 70         |
| 1,750,000                   | 2                                      | 3             | 6            | 13                    | 38         | 82         |
| 2,000,000                   | 2                                      | 4             | 7            | 14                    | 43         | 94         |
| 4,000,000                   | 4                                      | 8             | 15           | 30                    | 90         | 95         |
| 6,000,000                   | 5                                      | 11            | 22           | 44                    | 132        | 286        |
| 8,000,000                   | 7                                      | 15            | 29           | 58                    | 174        | 377        |
| 10,000,000                  | 9                                      | 18            | 36           | 72                    | 216        | 468        |
| 12,500,000                  | 11                                     | 23            | 45           | 90                    | 270        | 585        |
| 15,000,000                  | 14                                     | 27            | 54           | 108                   | 324        | 702        |
| 17,500,000                  | 16                                     | 32            | 63           | 126                   | 378        | 819        |
| 20,000,000                  | 18                                     | 37            | 72           | 144                   | 432        | 936        |
| 22,500,000                  | 21                                     | 41            | 82           | 164                   | 492        | 1,066      |
| 25,000,000                  | 23                                     | 45            | 90           | 180                   | 540        | 1,170      |
| 27,500,000                  | 25                                     | 50            | 100          | 200                   | 600        | 1,300      |

\*Arrived at by multiplying the estimated length of the spill by estimated width. Round up to the next highest value.

\*\*Calculated from guidance published by the API Task Force on Oil Spill Cleanup, Committee for Air and Water Conservation.

#### Oil Thickness Visual Assessment

| Term                                | Description  | Layer Thickness Interval (in.) * |   | bbl. per acre     | Visual Example  |
|-------------------------------------|--|----------------------------------|---|-------------------|---|
| Sheen / Rainbow                     | Visible on the water as a silvery <u>sheen</u> or with <u>tints of rainbow colors</u> . This is the smallest thickness of oil.                     | Silver                           | $1.6 \times 10^{-6} - 1.2 \times 10^{-5}$                       | 40 - 300          |  <a href="http://archive.orr.noaa.gov/job_aid/jobaid.html">http://archive.orr.noaa.gov/job_aid/jobaid.html</a>   |
|                                     |  | Rainbow                          | $1.2 \times 10^{-5} - 2.0 \times 10^{-4}$                       | 300 - 500         |   |
| Metallic / Discontinuous True Color | Visible with dark colors (i.e., <u>yellowish brown</u> , <u>light brown</u> ) with a <u>trace of rainbow color</u> but is not black or dark brown. | Metallic                         | $2.0 \times 10^{-4} - 2.0 \times 10^{-3}$                       | 5000 - 50,000     |  <a href="http://archive.orr.noaa.gov/job_aid/jobaid.html">http://archive.orr.noaa.gov/job_aid/jobaid.html</a>   |
|                                     |  | Discontinuous True Color         | $2.0 \times 10^{-3} - 8 \times 10^{-3}$<br>> $8 \times 10^{-3}$ | 50,000 to 200,000 |   |
| Continuous True Color               | Fresh oil after initial spreading will have a <u>black</u> or very <u>dark brown</u> color. This is the largest thickness of non-emulsified oil.   | >200                             |   | >200,000          |  <a href="http://archive.orr.noaa.gov/job_aid/jobaid.html">http://archive.orr.noaa.gov/job_aid/jobaid.html</a>  |
| Mousse                              | Water-in-oil emulsion which is often <u>orange</u> to <u>rust colored</u> . It is thick and viscous and may contain 30% oil.                       | --                               |   | --                |  <a href="http://archive.orr.noaa.gov/job_aid/jobaid.html">http://archive.orr.noaa.gov/job_aid/jobaid.html</a> |



Several natural weathering processes occur that can diminish the severity of the spill depending upon the composition of the oil.

**Natural Weathering Processes**

|   |  |
|---|--|
| ✓ | <b>Dispersion</b> – The act of breaking up large particles into smaller ones and distributing them throughout a liquid or gaseous medium.          |
| ✓ | <b>Dissolution</b> – The process of going into a solution.   |
| ✓ | <b>Emulsification</b> – Process consisting of the suspension of small globules of one liquid in a second liquid with which the first will not mix. |
| ✓ | <b>Evaporation</b> – To convert or change into a vapor or to draw off in the form of vapor.  |

These factors will be used to estimate the volume of oil in a spill unless an accurate amount is known by other means. Estimated spill volumes should be rounded off to avoid the misconception of a precise determination.

**5.2.3 Predicting Spill Movement**

Real-time oil spill trajectory models predict the movement of spilled oil on water and identify potential shoreline impact zones and other environmentally and ecologically sensitive areas.

The Response Group, Inc. (TRG) in Cypress, TX is a resource providing Sable Offshore Corp. with predictions of both the movement of oil on water and potential impact areas. TRG can initiate the trajectory mapping process by either verbal request or submitting a trajectory request form on a 24 hour/day basis. TRG relies on several sources that provide real-time data in conjunction with condition variables to track and predict spill movement throughout an incident. Trajectory model results will be transferred to Sable Offshore Corp. personnel via fax or email. Weather forecast buoy data and National Weather Bureau satellite imagery may be collected from internet services or by contacting the National Weather Service.

Trajectory models can be run with real-time and predicted weather information used as input over a several hour period.

**5.2.4 Estimating Spill Trajectories**

Oil spill trajectories may initially be estimated to predict the direction and speed of the slick movement. Trajectory calculations provide an estimate of where oil slicks may impact shorelines and other sensitive areas and provide an estimate of the most likely locations for protection, containment, and recovery.

**Methods for Estimating Spill Trajectories**

|   |   |
|---|---|
| ✓ | Computer trajectory modeling programs.  |
| ✓ | Vector Analysis (using wind speed/direction and ocean current speed/direction). |

Sable Offshore Corp. will utilize internal subject matter experts along with consultants as necessary to perform trajectory analysis and fate & effect modeling.

**Trajectory Input Variables**

|   |  |
|---|--|
| ✓ | Atmospheric temperature.                             |
| ✓ | Characteristics of spilled material.                 |
| ✓ | Nature of the spill - continuous or single incident. |
| ✓ | Sea state.   |
| ✓ | Spill location, volume, and time of the spill.       |
| ✓ | Water movement (current) speed & direction.          |
| ✓ | Water temperature.                                   |
| ✓ | Wind speed & direction.                              |

**Trajectory Variable Information Sources**

|   |   |
|---|---|
| ✓ | Commercial weather services.                            |
| ✓ | Internal Sable Offshore Corp. databases.                |
| ✓ | National Oceanic and Atmospheric Administration (NOAA). |
| ✓ | Reports from personnel at the spill site.               |

**5.2.5 Continued Monitoring and Tracking the Spill Movement**

Surveillance of the spill movement throughout the incident is essential to bringing response operations to a successful conclusion. Sable Offshore Corp. will utilize aerial overflights (fixed-wing, rotor, and or unmanned aerial vehicles/drones) and trajectory modeling to monitor and predict the movement of oil until the spill response operation is completed. Sable Offshore Corp. will also employ the use of vessels on the water to attain additional information on the location of oil.

Surveillance operations can be continued both day and night, and during inclement weather, using infrared sensing cameras capable of detecting oil on water. Information from the infrared cameras can be downloaded to a computer and printed out on a chart and/or recorded on videotape. This surveillance technology, if applicable, would be used in conjunction with scheduled overflight operations.

**5.2.6 Sampling and Testing**

In defining an acceptable response to a spill incident, it is necessary to know certain physical and chemical characteristics of the spilled material. If the identification of the spilled material

can be made without testing, product data may be obtained from a safety data sheet (SDS), product specification information, and/or records of product physical and chemical properties.

Occasionally a spill may occur in which the spilled material is not readily identifiable. Typically, laboratory analytical data for spill event samples will not be instantaneously available during an emergency. Therefore, it is necessary and desirable to field-categorize oils as the product reacts and changes in the environment. Although varying widely in physical and chemical properties, oil products have common basic features that permit their grouping for predictive evaluation of environmental effects and determination of control actions. As petroleum products react and change (e.g., weather) when exposed in the environment, the laboratory data may not be representative of "real-time" conditions; rather the data may instead reflect the chemical characteristics of the spilled material(s) at the time of sample collection.

### 5.3 Terrestrial Spills

Specific response actions are contained within each specific geographic area's Tactical Response Plan.

#### 5.3.1 Terrestrial Containment & Recovery

| Terrestrial Containment and Recovery Factors |   |
|--|---|
| ✓  | <b>Existing drainage courses</b> - Oil is more easily contained and recovered if it is flowing within or can be diverted to, existing natural or manmade drainage structures. |
| ✓  | <b>Size</b> - Most containment techniques provide limited storage capacity.   |
| ✓  | <b>Slope</b> - Berms and barriers are generally less effective on steeper slopes and accessibility may be limited.  |
| ✓  | <b>Stormwater runoff</b> - Runoff generally requires the containment of larger quantities of liquids and complicates oil recovery.  |
| ✓  | <b>Substrate permeability</b> - Highly permeable sediments will allow rapid penetration of oil into the substrate, thus complicating containment, and recovery.               |
| ✓  | <b>Surface texture</b> - rough surfaces with natural ridges and depressions enhance containment and should be taken advantage of whenever possible.                           |

If terrestrial sediments become oiled or petroleum contacts and becomes stranded on a shoreline, cleanup operations should be undertaken to minimize the environmental effects of the petroleum. In most instances, cleanup efforts are not subject to the same time constraints as containment, recovery, and protection operations. As a result, better planning and greater attention to detail are possible. The exception is where there is a high probability of stranded oil becoming remobilized and migrating to previously unaffected areas. In this case, cleanup operations should be implemented immediately. Federal and state OSC's must be advised of cleanup plans before the start of any shoreline cleanup operation.

#### Considerations

|   |   |
|---|---|
| ✓ | Clean-up technique selection.   |
| ✓ | Cost-effectiveness.   |
| ✓ | Documentation of the location, degree, and/or extent of oil conditions.                           |
| ✓ | Evaluation of all environmental, cultural, economic, and political factors.                       |
| ✓ | Mitigation of physical and environmental damage associated with cleanup technique implementation. |

#### 5.3.2 Terrestrial Cleanup Factors

The shoreline or terrestrial oil conditions can range from those which require immediate and thorough cleanup to lightly oiled areas where no action may be the most environmentally sound option. The amount and type of oil, shoreline sensitivity, substrate or shoreline type, intrusive nature of the candidate techniques, and shoreline exposure are all factors that influence technique selection and whether cleanup will be required.

#### Terrestrial Cleanup Factors

|   |  |
|---|--|
| ✓ | <b>Impacted groundwater</b> - Special subsurface remediation techniques would likely be required. See Section 2.5.5 for more information.  |
| ✓ | <b>Oil penetration depth</b> - Significant penetration may require the use of heavy equipment or special subsurface remediation techniques.  |
| ✓ | <b>Sediment type</b> - softer sediments may reduce mobility for heavy equipment and the presence of coarser sediments and bedrock could also restrict the use of certain types of heavy equipment. |
| ✓ | <b>Size</b> - Larger areas will generally require the use of mechanical methods, whereas manual techniques can be used for smaller areas.  |
| ✓ | <b>Slope</b> - The use of heavy equipment is often restricted to gradually sloped areas, and manual techniques may be considered unsafe if used on steep terrain.                                  |

### 5.3.3 Shoreline Cleanup Factors

| Shoreline Cleanup Factors |   |
|---------------------------|---|
| ✓                         | <b>Oil conditions</b> - Heavier oil conditions and larger areas may require more intrusive or mechanical methods, whereas lighter conditions may not require any form of cleanup. For example – removing lighter oils in a marsh area or wetland may cause more harm to the environment than allowing for natural attenuation and biodegrading. |
| ✓                         | <b>Oil penetration depth</b> - Significant penetration can reduce the effectiveness of several techniques.  |
| ✓                         | <b>Shoreline sensitivity</b> - Intrusive techniques may create a greater impact than the oil itself.  |
| ✓                         | <b>Shoreline slope</b> - Heavy equipment may not be usable on steeper shorelines.   |
| ✓                         | <b>Substrate type</b> - Finer-grained sediments typically require different techniques than coarse-grained sediments.   |

### 5.3.4 Special Considerations for Spills to Groundwater

Spills to the bare ground will initially spread laterally on the surface and then begin migrating downward through the soil and, depending on a variety of factors and circumstances, could reach groundwater. A portion of the oil will be absorbed by the soil particles or become trapped in small pores eventually immobilizing the spill.

| Factors Halting Ground Oil Absorption |   |
|---------------------------------------|---|
| ✓                                     | Groundwater is reached.   |
| ✓                                     | Impenetrable Layer (silt, clay, sandstone, rock) is encountered.      |
| ✓                                     | Residual Saturation is reached (all the oil is absorbed by the soil). |

If a spill does reach groundwater, the oil will form a mound on the surface of the groundwater (water table) and begin to spread horizontally but preferentially in the direction of groundwater flow. For higher groundwater velocities, a narrow plume elongated in the direction of groundwater flow will form whereas for lower velocities the plume broadens and assumes a more circular pattern. The thickness of the plume or layer of oil on the water table will decrease with distance from the source.

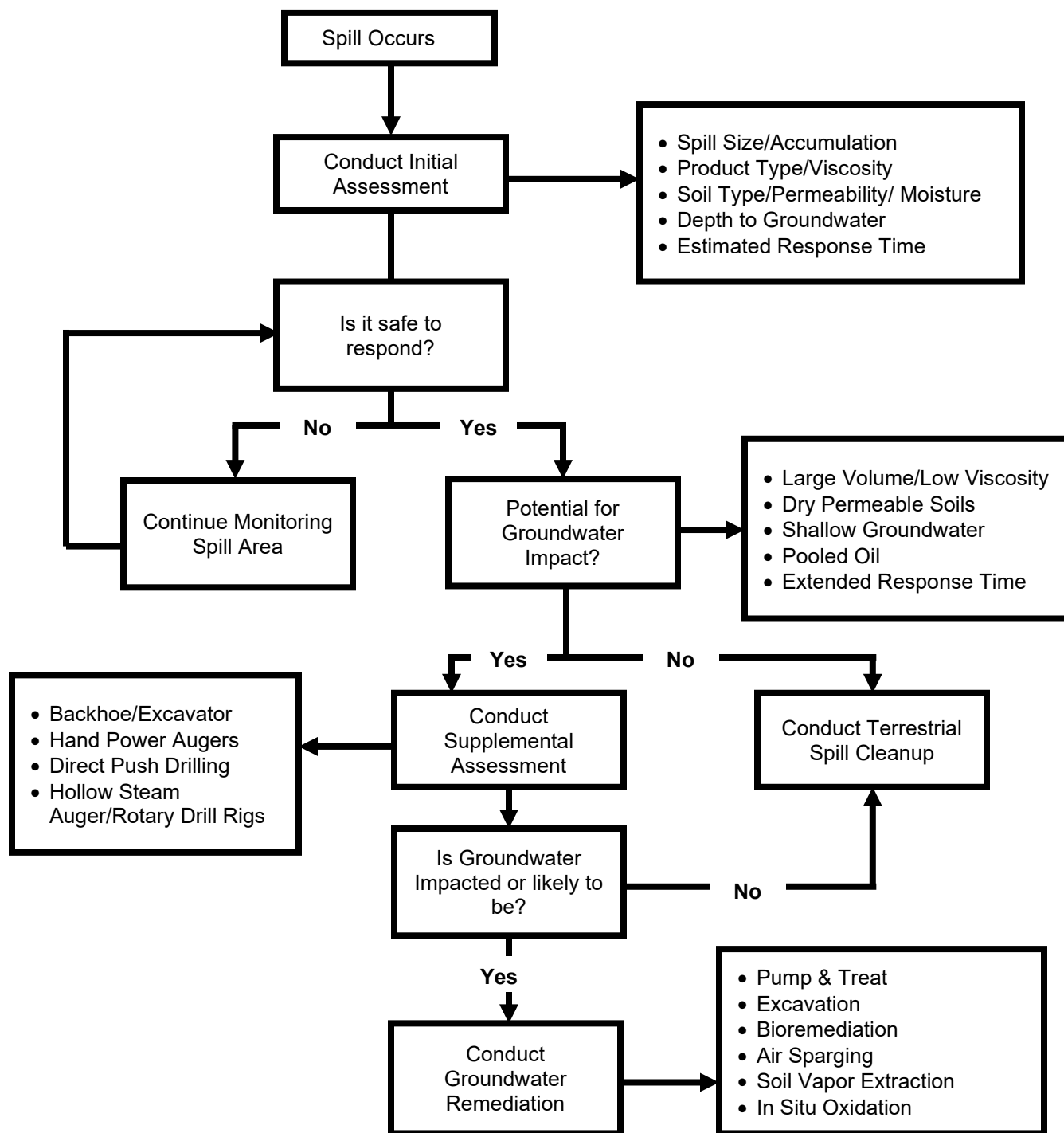
As with vertical migration, a portion of the oil will adhere to soil particles and become trapped in small or water-filled pores, eventually becoming immobilized. For instantaneous or quasi-instantaneous spills, 40-70% of lateral spreading will generally occur in the first twenty (24) hours whereas 60-90% occurs in the first week.



#### 5.3.4.1 Response Actions

In the event of a spill to bare ground, several actions should be taken to assess the spill and if groundwater is impacted, initiate recovery and limit the extent of the impact. A decision guide flowchart is provided below that outlines the general response actions that should be taken.

#### Groundwater Spill Response Strategy Guide



#### **5.3.4.2 Initial Assessment**

As for any spill, the initial response actions for spills to bare ground should include the assessment of health and safety hazards. See the Site Safety and Health Plan as well as the following parameters.

| Initial Assessment Parameters |  |
|-------------------------------|--|
| ✓                             | Depth to Groundwater.                                      |
| ✓                             | Estimated Response Time to Initiation of Recovery Actions. |
| ✓                             | Product Type (viscosity).                                  |
| ✓                             | Soil Type/Permeability/Moisture Content.                   |
| ✓                             | Spill Size and Product Accumulation (pooled oil) Depth.    |

#### **5.3.4.3 Ground Impact Potential**

Once the assessment is completed, the potential for the spill to impact underlying groundwater should be determined and generally requires some knowledge of the local hydrogeology including soil type/permeability and depth to groundwater, and groundwater flow direction. The common factors, along with selected examples that contribute to a spill having a higher or lower potential to impact groundwater are:

| Higher Potential |   |
|------------------|---|
| ✓                | Dry Soil with Low Oil Retention Capacity.                             |
| ✓                | Highly Permeable Soils (sand, gravel, coarse-grained mixed sediment). |
| ✓                | Large Volume.   |
| ✓                | Low Viscosity Oil (gasoline).   |
| ✓                | Pooled Oil (creates a hydraulic head that enhances penetration).      |
| ✓                | Response Time (several hours before pooled oil recovery begins).      |
| ✓                | Shallow Groundwater (generally <20 ft.).                              |

#### Lower Potential

|   |   |
|---|---|
| ✓ | Deep Groundwater (generally >20 ft.).   |
| ✓ | Low Permeability Soils (silts, clays, fine-grained mixed sediment).           |
| ✓ | Medium to High Viscosity Oil (industrial fuel oils, crude, lubricants, etc.). |
| ✓ | No Pooled Oil on Surface.   |
| ✓ | Response Time (expeditious recovery of pooled oil or saturated soils).        |
| ✓ | Small Volume.   |
| ✓ | Wet or Moist Soils with High Oil Retention Capacity.                          |

For small spills that do not pool on the ground surface, vertical penetration into the soil is often limited to four (4) to eight (8) inches except for coarse gravels, which could allow considerably deeper penetration. Depth of penetration can be estimated if you know the square footage of surface impact, soil type, depth to groundwater, and spill volume. Using the above information and the table shown below, a calculation of how much oil can be absorbed/retained by the soil between the surface and the water table. If the retention capacity is significantly greater than the spill volume, the potential for the spill to reach groundwater would be low and vice versa.

#### Retention Capacity

| Soil Type                | Oil Retention Capacity (gal / yd <sup>3</sup> ) |
|--------------------------|---|
| Stones, coarse gravel    | 1   |
| Gravel, coarse sand      | 1.6   |
| Coarse sand, medium sand | 3   |
| Medium sand, fine sand   | 5   |
| Fine sand, silt          | 8   |

#### 5.3.4.4 Supplemental Assessment

If the potential exists for a spill to reach groundwater, additional assessment activities should be conducted to determine whether groundwater has been impacted and, if so, assess the extent of impacts. In most cases, experienced remediation contractors already under contract to Sable Offshore Corp. will be utilized to conduct subsequent assessment activities.

**Assessment Activities**

|   |  |
|---|--|
| ✓ | <b>Backhoes or Excavators</b> – excavate pits/trenches to determine penetration depth/groundwater impacts (limited to depths of 10–20 ft.).                |
| ✓ | <b>Direct Push Drilling Rigs</b> – install borings to collect soil/water samples and can be used to install temporary wells (often limited to 50-100 ft.). |
| ✓ | <b>Hand or Power Augers</b> – install borings to collect soil/water samples and can be used to install temporary wells (often limited to 15-30 ft.).       |
| ✓ | <b>Hollow Stem Auger (HAS) or Rotary Drill Rigs</b> - install borings to collect soil samples and wells for groundwater samples (limited to 100-500 ft.).  |

The method used often depends on equipment availability, depth to groundwater, and access to the spill area. For areas with shallow groundwater and good access, backhoes or excavators are often the most expedient means of determining penetration depth and groundwater impacts. If access is limited, such as in many tank farms, hand or power augers can be used to install borings and collect samples. Direct push (Geo-probe) rigs can get into many areas but are generally truck-mounted and will need road access. For areas with good access and where groundwater is deeper, hollow stem augers or rotary drill rigs are often the best equipment for subsequent assessment.

Borings or pits should be installed, if safe to do so, in the main spill area where penetration is typically greatest. If groundwater impacts are confirmed or expected, additional borings or wells should be installed by stepping out laterally from the spill area and primarily in the downgradient direction until the groundwater impact area is delineated.

It is important to note that if intrusive activities (excavation, drilling, hand augers, etc.) are necessary, additional air monitoring of the excavation and breathing zone around the activities should be conducted to ensure additional hazards are not created by the activities. If excavation activities are conducted and workers must enter the excavation, confined space permitting and/or shoring regulations may apply.

**5.3.4.5 Recover/Remediation**

In the event a spill does reach groundwater or the threat of reaching groundwater remains, recovery or remediation activities will need to be conducted to mitigate the impacts. The impacts could be limited to low concentrations of hydrocarbons that have dissolved into the groundwater or, for larger spills, involve a layer of oil/product floating (separate, or non-aqueous, phase hydrocarbons) on the groundwater-surface accompanied by elevated concentrations of dissolved (aqueous phase) hydrocarbons in the groundwater.

#### Common Groundwater Remediation Techniques

|   |                       |
|---|-----------------------|
| ✓ | Air sparging          |
| ✓ | Bioremediation        |
| ✓ | Excavation            |
| ✓ | In situ oxidation     |
| ✓ | Pump and treat        |
| ✓ | Soil vapor extraction |

The selection of the most appropriate remediation technique will depend on several factors including product type, soil type, depth to groundwater, access, the extent of impacts, current groundwater use, etc. Sable Offshore Corp. will utilize experienced remediation contractors to select and implement the most appropriate remediation technique(s).

#### 5.4 Aquatic Spills

Specific response actions are contained within each specific geographic area's Tactical Response Plan.

##### 5.4.1 Aquatic Containment, Protection, and Recovery Factors

#### Aquatic Containment, Protection and Recovery Factors

|   |   |
|---|---|
| ✓ | <b>Anchor points</b> - Soft bottom substrates can complicate boom anchor placement.   |
| ✓ | <b>Channel width</b> - Widths of more than 200 to 300 feet will generally preclude using booms to completely contain oil floating in the waterway, particularly if strong currents are present.   |
| ✓ | <b>Current speed</b> - Surface currents greater than 1 knot can cause boom failure or entrainment of oil beneath the boom when the boom is deployed perpendicular to the current. If deployed at an angle, boom can generally be effective up to 2-3 knots. |
| ✓ | <b>Safety</b> - High currents and winds, large obstacles, and other dangerous conditions could present safety hazards and preclude certain techniques.  |
| ✓ | <b>Shoreline access</b> - Obstacles (rocks, debris, man-made structures, etc.) in the water or steep or densely vegetated shorelines could restrict access and present safety and operational problems.   |
| ✓ | <b>Slick thickness</b> - Recovery effectiveness with pumps/vacuum systems and skimmers decreases as slick thicknesses decline, becoming relatively ineffective for very thin slicks or sheens.  |
| ✓ | <b>Water depth</b> - Depths greater than 50 feet can complicate boom anchor placement, whereas depths less than 2 feet can preclude effective boom use.   |



#### 5.4.2 Open-Water & Close-to-Shore

Effectively implementing containment and recovery techniques is generally dependent on the size of the spill, available logistical resources, implementation time, and environmental conditions in the spill area. Sable Offshore Corp. strategy is to use Company-owned equipment for immediate containment and contractor equipment and expertise to contain and/or recover spilled oil to the environment.

### 5.5 Alternative Response Technologies

| Alternative Response Technologies |                                |
|-----------------------------------|--------------------------------|
| ✓                                 | Bioremediation                 |
| ✓                                 | Chemical treatment/dispersants |
| ✓                                 | In-situ Burning                |

Although physical control and recovery of spilled oil are advocated and generally preferable, such actions are not always possible or practical because of factors including safety hazards, remote spill sites, or weather. When non-mechanical methods can result in reduced human hazard or environmental damage, consideration of their use is appropriate but will require regulatory approval. If an alternative response technology is considered, the Company will coordinate through the Unified Command and with the Regional Response Team to ensure appropriate steps are taken and documented to expedite approval.

The use of alternative response technologies is prohibited without authorization from the Federal on Scene Coordinator.

All Alternative response technology operations must be conducted under the Special Monitoring of Applied Response Technologies protocols.

#### 5.5.1 Dispersant Use

All pre-approved dispersants are found in the National Contingency Plan's (NCP) 40 CFR Part 300, National Product Schedule. This list is updated on a monthly or bimonthly basis. When considering dispersant use, only products on the National Product Schedule may be used, except during an emergency such as an immediate threat to human life.

The FOSC may authorize the use of dispersants when concurrence has been received by the appropriate RRT or in a pre-approved zone. In cases where dispersants are necessary due to an immediate threat, the FOSC may authorize the use and inform the RRT of the action.

All Dispersant Operations will be conducted following the guidance and direction provided in the appropriate Area Contingency Plan.

Consideration of dispersant use during a spill must account for all aspects of the situation.

| Dispersant Use Considerations |                                       |
|-------------------------------|---------------------------------------|
| ✓                             | Adequacy of cleanup techniques.       |
| ✓                             | Chemical dispensability of the oil.   |
| ✓                             | Economics                             |
| ✓                             | Logistics                             |
| ✓                             | Natural dispersion.                   |
| ✓                             | Nature of the oil.                    |
| ✓                             | Nature of the oil/dispersant mixture. |
| ✓                             | Resources at Risk.                    |
| ✓                             | Time                                  |

Special considerations such as threatened or endangered species, critical habitats, historical or cultural sites, and other structures must also be considered in the decision process.

#### 5.5.2 In-Situ Burning

When the mechanical recovery of spilled oil is not feasible, in-situ burning should be considered as a potentially viable option. Since burning presents a potential safety and air pollution hazard to the surrounding area, approval from appropriate regulatory agencies is required. In-situ burning alters the composition of the spilled oil by eliminating anywhere from 90 to 99 percent of the original volume of oil provided it is controlled within a fire-resistant boom or other containment system. A portion of the original oil is released into the atmosphere as soot and gaseous emissions. Solid or semi-solid residues typically remain following a burn but are relatively easy to retrieve. They can be further reduced in volume through repeated burns, and ultimately are collected and removed from the marine environment.

In-situ burning generates a thick black smoke that contains primarily particulates, soot, and various gases (carbon dioxide, carbon monoxides, water vapor, nitrous oxides, and PAHs). The components of the smoke are like those of car exhaust. Of these smoke constituents, small particulates less than 10 microns in diameter, known as PM-10, (which can be inhaled deeply into the lungs) are considered to pose the greatest risk to humans and nearby wildlife. Each affected area is considered on a case-by-case basis. Decisions to burn or not to burn oil in areas considered case-by-case are made based on the potential for humans to be exposed to the smoke plume, and pollutants associated with it. PM-10 exposure is generally limited to 150 micrograms per cubic meter.

Smoke plume modeling is done to predict which areas might be adversely affected. In-situ burning responses require downwind air monitoring for PM-10. Aerial surveys are also conducted before initiating a burn to minimize the chance that concentrations of marine mammals, turtles, and birds are in the operational area and affected by the response. SMART (Special Monitoring for Applied Response Technologies) protocols are used. SMART recommends that sampling is conducted for particulates at sensitive downwind sites before the burn (to gather background data) and after the burn has been initiated. Data on particulate levels are recorded and the Environmental Unit forwards the data and recommendations to the UC.

**In-Situ Burning Considerations**

|   |  |
|---|--|
| ✓ | Availability of personnel and equipment. |
| ✓ | Danger of fire spreading.                |
| ✓ | Environmental conditions.                |
| ✓ | Human safety.                            |
| ✓ | Oil Type, amount, and condition.         |
| ✓ | Presence of explosive vapors.            |
| ✓ | Timing.                                  |

**5.5.3 Bioremediation**

Bioremediation is the process of applying nutrients (fertilizer containing nitrogen and phosphorus) or genetically engineered bacteria to oiled terrestrial or shoreline areas to accelerate the natural biodegradation process. During this process, micro-organisms (bacteria) oxidize hydrocarbons, ultimately converting them to carbon dioxide and water.

The decision to use bioremediation treatment should be based on the type of spill, the character of the area impacted, and the local political jurisdiction. In some cases, other forms of cleanup may be required in conjunction with nutrient addition to achieve the desired enhancement rate. Extensive efforts to achieve more acceptance of this technology are underway.

The use of biological additives is regulated under Subpart J of the NCP (40 CFR 300.900). Under the NCP, options for the authorization of biological agents are outlined, including a provision for conditional preapproval for use under certain conditions and in certain locations.

The Incident Commander will be responsible for providing the FOSC and SOSC with incident-specific information needed to approve the conduct of bioremediation operations.

The Incident Commander will be responsible for providing the FOSC and SOSC with incident-specific information needed to approve the conduct of bioremediation operations.

## 5.6 Waste Generation and Disposal

This section is to guide Company personnel in the proper management procedures for the handling, storage, disposal, and transport of hazardous and non-hazardous wastes generated from oil spill response operations. This information addresses:

| Waste Management Plan Components |   |
|----------------------------------|---|
| ✓                                | Characterization of recovered material.         |
| ✓                                | Disposal options.                               |
| ✓                                | Initial treatment.                              |
| ✓                                | Temporary storage.                              |
| ✓                                | Transportation                                  |
| ✓                                | Waste minimization and recycling opportunities. |

### 5.6.1 General Handling Guidelines for Recovered Oil

The primary concern in handling oil and oily debris is to prevent the spread of oil contamination to otherwise unaffected areas and the recontamination of areas already cleaned. By employing the guidelines and procedures presented in this section, further oil contamination can be abated. Oil spill recovery and cleanup operations typically generate large quantities of recovered oil, oily wastes, and debris that require proper handling, storage, transportation, and treatment/disposal. Oily wastes and debris often consist of recovered oil, sorbent pads/booms, protective clothing, soil, vegetation (logs, plants, trees, and leaves), trash, oil/water mixtures, and animal carcasses. The management of recovered oil and oily wastes generally include the following activities:

| Management of Recovered Oil & Oily Waste |                         |
|--|-------------------------|
| ✓  | Disposal / treatment.   |
| ✓  | Interim storage.        |
| ✓  | Sampling and analysis.  |
| ✓  | Transportation.         |
| ✓  | Waste characterization. |
| ✓  | Waste handling.         |

These activities must comply with the standards outlined in relevant state and federal regulations. Waste management must also be conducted with the overall objective of ensuring:

| Overall Objectives |   |
|--------------------|---|
| ✓                  | Cost-effectiveness.   |
| ✓                  | Minimization of environmental impacts.                      |
| ✓                  | Minimization of present and future environmental liability. |
| ✓                  | Proper treatment / disposal.                                |
| ✓                  | Waste minimization.   |
| ✓                  | Worker safety.  |

### 5.6.2 Regulatory Overview

Various state and federal regulations have been promulgated in recent years to ensure proper handling and disposal of oil and oily wastes recovered during a response to an oil spill. Regulations adopted by California are similar but generally more stringent than those established by the Federal Government (EPA), state regulations for handling, storage, transportation, and treatment/disposal of oil spill wastes, therefore, will take precedence over federal requirements.

### 5.6.3 Characterization of Waste

#### 5.6.3.1 Hazardous Characteristics

Presently, crude, lube, and fuel oils are not considered hazardous waste unless they possess one or more of the following characteristics described in 40 CFR Part 261.20 (or, California Code of Regulations (CCR) Title 22, Section 66261.20. These are:

| Hazardous Characteristics |              |
|---------------------------|--------------|
| ✓                         | Corrosivity  |
| ✓                         | Ignitability |
| ✓                         | Reactivity   |
| ✓                         | Toxicity     |



Any hazardous waste that may be generated during an event has to be handled differently than a non-hazardous waste. The primary objective of waste characterization is to ensure employee safety and proper waste handling and disposal following applicable state and federal guidelines. The federal definition of hazardous waste, as defined in 40 CFR 261.20, is a waste that exhibits one or more of the following characteristics:

| Hazardous Waste Characteristics |   |
|---------------------------------|---|
| <b>Ignitable</b>                | A liquid that has a flashpoint of less than 140°F   |
|                                 | A non-liquid capable of causing fire through friction, absorption of moisture, or spontaneous chemical change   |
|                                 | An ignitable compressed gas or oxidizing agent  |
| <b>Corrosive</b>                | A non-aqueous waste mixed with an equivalent weight of water or an aqueous waste with a pH less than 2 or greater than 12.5   |
|                                 | A non-liquid waste mixed with an equivalent weight of water or liquid waste that corrodes steel (SAE 1020) at a rate greater than 0.25 inches a year at a test temperature of 130°F |
| <b>Reactive</b>                 | An unstable substance that undergoes violent change without detonating, reacts violently with water, and/or forms explosive or toxic gases when mixed with water                    |
|                                 | Cyanide or sulfide-bearing waste that can generate toxic gases, vapors, or fumes when exposed to pH conditions between 2 and 12.5   |
|                                 | A substance capable of detonation when subjected to a strong force or heat  |
|                                 | A substance readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure   |
|                                 | A forbidden explosive as defined in 49 CFR 173.54   |
| <b>Toxicity</b>                 | Using TCLP, the extract from a representative sample of the waste contains threshold concentrations of contaminants listed in the toxicity characteristic list                      |
|                                 | A waste that contains a substance at a concentration which equals or exceeds the soluble threshold limit concentration (STLC) or the total threshold limit concentration (TTLC)     |
|                                 | A waste that has an acute oral LD50, acute dermal LD50, acute inhalation LC50 or acute aquatic LC50 below defined thresholds (See state / federal waste regulations)                |
|                                 | A waste that contains greater than 0.001 percent by weight of listed substances (See state / federal waste regulations)   |

In general, wastes associated with spills of gasoline, jet fuel, and motor fuel additives will most likely be considered hazardous due to their relatively low flash point (ignitability) and toxicity, but the final determination will depend primarily on the concentration of volatile hydrocarbons and/or water content. (Oil/water mixtures may not have a flashpoint.)

Once the waste has been characterized and a waste handling, storage, and disposal plan have been prepared, candidate recycling, treatment, and disposal facilities must be contacted to determine their acceptance criteria. Most facilities will require that the waste be profiled, which typically means that several analytical and physical tests must be conducted by an accredited laboratory. The number and type of tests required are dependent on the waste type.

#### 5.6.3.2 Non-Hazardous Designated Materials

Materials determined to be non-hazardous but designated will be transported to a Class II waste management facility. The appropriate local authorities should be contacted to determine what waste management facility will accept the waste and any additional tests or requirements the facility might require.

#### 5.6.4 Response Procedures for Waste Handling

##### 5.6.4.1 Waste Handling during Oil Spill Response

The procedures described below will be directed by the Incident Commander and should be followed by response personnel during an oil spill cleanup:

| Procedures for Waste Handling |   |
|-------------------------------|---|
| ✓                             | Identify and implement the appropriate personal protective equipment (PPE) and waste handling procedures to ensure the health and safety of waste handling personnel.   |
| ✓                             | Estimate as soon as possible the magnitude of liquid and solid waste that will likely be generated by the spill and response activities and begin arranging for waste handling, temporary storage, treatment, and disposal. Estimates of liquid and solid waste quantities depend on the type of oil spilled, whether the spill is to water or land, and, in the case of land spills, the presence of pooled oil. General estimating guidelines are as follows: <ul style="list-style-type: none"><li>• Gasoline spills to water: Spill volume x 0.1</li><li>• Diesel, jet fuel, heating oil spills to water: Spill volume x 0.75</li><li>• Spills to land/shorelines: Length of oiled area x average width x average penetration depth x 1.5</li></ul> |
| ✓                             | Prepare a disposal plan for internal use and submittal to the regulatory agencies   |
| ✓                             | Initiate procurement of appropriate waste storage containers (barges, tanks, bladders, drums, debris boxes, etc.), identify candidate interim storage sites, and obtain approvals or permits.   |
| ✓                             | Make preliminary contacts with waste transportation contractors and treatment and disposal facilities to determine their availability.  |
| ✓                             | Collect representative samples of recovered product and product-contaminated waste materials.   |
| ✓                             | Deliver representative samples to a certified laboratory for analysis to determine proper handling and disposal requirements.   |

**Procedures for Waste Handling**

|   |  |
|---|--|
| ✓ | Segregate wastes based on key characteristics including: <ul style="list-style-type: none"><li>• Hazardous</li><li>• Non-hazardous/solid</li><li>• Recyclable</li><li>• Reusable</li><li>• Treatment</li><li>• Burnable</li><li>• Non-burnable</li></ul> |
| ✓ | Prepare a Uniform Hazardous Waste Manifest or Bill of Lading for all shipments of waste offsite.   |

**5.6.4.2 Oily Waste Handling/Treatment Before Transport and Disposal**

A primary concern in handling the recovered product and oily waste is to ensure the health and safety of response personnel and prevent contamination of previously unaffected areas or recontamination of areas already cleaned. Recovered oil should always be placed in sealable containers such as tank trucks, portable pillow tanks, 55-gallon drums, 5-gallon cans with lids or caps, or any other container that can be sealed to prevent spillage. Oily debris should always be placed in leak-proof containers to prevent further spread of spilled oil during handling and transport. Debris boxes or similar containers can hold larger amounts of waste material if they are lined with plastic or rendered leakproof by some other means. For instance, dump trucks are well-suited to transporting oily debris from the spill area to the temporary storage area, disposal site, or recycling facility provided the truck bed is lined with plastic to prevent leakage during transport.

Oil and oily wastes may or may not exhibit characteristics of hazardous waste. These wastes should, therefore, be assumed to be hazardous waste and treated as such, or samples should be collected and sent to a state-certified laboratory for characterization.

**5.6.4.3 Temporary Waste Storage Staging Areas**

The Operations Section Chief is responsible for managing activities at the staging area(s) and for identifying additional areas, if necessary. Staging areas may be selected for utilization as equipment and material storage sites, equipment repair and maintenance areas, temporary storage areas for oil spill-related wastes, etc. These sites will be located with good access to the cleanup operations and to nearby streets and highways. Good storage sites are flat areas such as paved parking lots. The selection of all sites will be subject to regulatory requirements and approvals.

Temporary waste storage sites will be selected and prepared to minimize contamination of surrounding areas from leaching oil. All area drains in the vicinity of a site will be identified and, in the event of a spill, all potentially affected drains will be diked. The waste storage sites will not be located on or adjacent to ravines, gullies, streams, or the sides of hills; but will be located on areas with a minimum slope and above the high-water mark. Access to the storage sites will be controlled and a five-mile-per-hour speed limit will be enforced within these sites. A spill control kit will be kept at each site. This kit will include a patch kit for potential leaking containers

and a supply of sorbent and socks. Should the waste be classified as hazardous, the waste may not be stored in the temporary storage site over 90 days.

#### 5.6.4.4 Waste Disposal (Recycling/Treatment/Incineration/Landfill)

Several alternatives are available for waste disposal. Management and disposal of hazardous wastes should be prioritized as follows:

| Prioritization During Waste Disposal |  |
|--------------------------------------|--|
| ✓                                    | Landfill                                     |
| ✓                                    | Physical, chemical, and biological treatment |
| ✓                                    | Recycling                                    |
| ✓                                    | Solidification / stabilization treatment     |
| ✓                                    | Waste reduction                              |

Other alternatives such as bioremediation and energy recovery are also encouraged.

Recovered petroleum products not accepted for recycling together with contaminated solid waste and debris must be transported to an approved waste management facility. The type of management facility will be based on the results of the characterization initially performed under RCRA requirements.

Waste classified as hazardous waste must be transported to a permitted hazardous waste facility.

### 5.7 Natural Resource Damage Assessment

The Natural Resource Damage Assessment (NRDA) process was established by the Oil Pollution Act of 1990 (OPA90) with the goal of restoring damage to natural resources which have resulted from spills/releases of oil or hazardous substances. The lead federal agency providing NRDA regulatory guidelines is the National Oceanic and Atmospheric Administration (NOAA).

NRDA is directed toward quantifying injuries to natural resources and their services and identifying restoration alternatives. Natural resources include land, fish, wildlife, biota, air, water, and other resources belonging to, managed by, or controlled by the United States, state, local, or Tribal governments.

This restoration goal is achieved by determining damage to injured natural resources and returning injured resources to pre-spill conditions and compensating for interim losses from the date of the spill until recovery. Compensation is through restoration, rehabilitation, replacement, or acquisition of equivalent natural resources and/or services. Compensation can be monetary

or actual restoration of the natural resource. Responsible Parties (RP) are obligated to pay for all reasonable costs of an NRDA, including assessment, planning, and restoration costs. NRDA costs vary but can be 25% or more of the entire spill response cost.

The NRDA process is implemented by government trust agencies (trustees) following an oil spill where injuries to natural resources have occurred or are anticipated. Natural Resource Trustees can consist of as many as five or more agencies. The RP will be invited to participate in the NRDA process, but only to the extent agreed by the NRDA trustees.

NRDA regulations require a highly structured process which involves three phases: pre-assessment (determine injury), restoration planning (assess injury & select restoration method), and restoration implementation. This process can take several years to complete.

Because of the highly technical nature and associated legal liabilities of NRDA, Sable Offshore Corp. will rely on the environmental, health and safety department to design and execute NRDA studies for the Company. Sable Offshore Corp. Safety, Health, and Environment Manager, in consultation with the affected Area Manager/Supervisor, will be responsible for determining the need for damage assessment monitoring and will contact Sable Offshore Corp.'s NRDA Group as part of the initial internal notification process for selected incidents.

Appendix A of the NRDA Response Manual provides more detailed information regarding the NRDA process, including telephone numbers for the Sable Offshore Corp. NRDA Advisor and Coordinator, and NRDA contractors.



## Section 6 Site Safety and Control

### 6.1 Health and Safety

In addition to the safety and health concerns addressed by the preliminary assessment, a safety and health/incident assessment should be conducted to further evaluate the safety and health hazards including:

| Health and Safety Concerns |   |
|----------------------------|---|
| ✓                          | Identification of material involved.                            |
| ✓                          | Physical and chemical characteristics of the involved material. |
| ✓                          | Determine liquid/vapor size and movement.                       |
| ✓                          | Identification of communities and sensitive resources at risk.  |
| ✓                          | Fire and explosion.   |
| ✓                          | Flammability.   |
| ✓                          | Toxicity (and/or may cause asphyxiation).                       |

Except for hydrogen sulfide and a few other chemicals, the flammability of these materials usually presents a far greater hazard to field personnel than toxicity because fires and explosions are often difficult to protect against and can result in catastrophic consequences. The hazards associated with the inhalation of petroleum and chemical vapors and direct contact with many of the commodities handled by Sable Offshore Corp. should not, however, be overlooked.

The Sable Offshore Corp. Safety Manual provides guidelines for assessing the vapor and explosion hazards and determining the appropriate personal protection equipment (PPE) that should be used when conducting the assessments for releases of various commodities.

Additional information on PPE, vapor monitoring, and fire and explosion hazards are provided in subsequent sections.

**Safety Practices**

|   |  |
|---|--|
| ✓ | All employees/contractors must receive a safety orientation on the Sable Offshore Corp. Site Safety and Health Plan prior to the initiation of supplemental response procedures.   |
| ✓ | All response personnel must have completed the appropriate HAZWOPER training and all support/non-response personnel shall have completed the training required for their position. |
| ✓ | No employee/contractor shall engage in any activities without the appropriate PPE.   |
| ✓ | Operations during spills shall be conducted in accordance with the Sable Offshore Corp. Site Safety and Health Plan.   |
| ✓ | All injuries, no matter how minor, must be reported immediately to a Sable Offshore Corp. supervisor.  |
| ✓ | Developments affecting safety may occur frequently; regular hazard/air monitoring is required.   |

**General Safety Considerations during Spill/Release Response**

|   |  |
|---|--|
| ✓ | Cold weather may inhibit vapor production in spilled petroleum products. Even a slight warming trend may cause concentrations of vapors that are explosive.  |
| ✓ | Downwind, low-lying areas could contain harmful accumulations of vapors or low oxygen concentrations.  |
| ✓ | The sense of smell is not an adequate indication of the presence (or absence) of harmful vapors or gases.  |
| ✓ | If a vapor cloud is visible, do not enter the cloud. Remember the actual vapor area is many times larger than the visible cloud (up to 3 to 5 times larger). |

**6.1.1 Identifying Safety Concerns and Prevention**

During cleanup operations, the physical working environment for employees must be continually evaluated. Exposure to either hot or cold weather conditions along with long working hours will adversely affect both the psychological and physiological conditions of those involved.

Continued exposure may result in physical discomfort, loss of efficiency, and a higher susceptibility to accidents and injuries.

### 6.1.2 Site Safety Objectives

The Occupational Safety and Health Administration (OSHA) has promulgated two sets of regulations that are applicable to response operations.

- Hazard communications regulations ([29 CFR §1910.1200](#)).
- HAZWOPER regulations ([29 CFR §190.120](#)).

The hazards communications regulations require that workers be informed of any hazards associated with the materials that they may meet during the conduct of response operations. Hazardous waste operations and emergency response regulations require the preparation of a site-specific safety and health plan, and workers are properly trained to carry out response operations in a safe and healthful fashion.

#### Site Safety Plan Objectives

|   |   |
|---|---|
| ✓ | Comply with applicable laws, rules and regulations, standards, and government agency directives.  |
| ✓ | Ensure that personnel are thoroughly briefed on workplace chemical and physical hazards, and on Company policies, practices, and procedures to eliminate the hazards or reduce them to an acceptable level. |
| ✓ | Establish a positive working relationship with Federal, state, and local safety and health agencies.  |
| ✓ | Maximize personnel protection during all phases of response operations by implementing a comprehensive safety and health program.   |
| ✓ | Maximize the safety and health of the public.   |
| ✓ | Minimize job injuries and illnesses.  |
| ✓ | Minimize personnel exposure to workplace hazards.   |

### 6.1.3 Site Safety Plan

The SOFR will prepare a Site Safety Plan (SSP) that will be kept on-site and address the safety and health hazards of each phase of site emergency response operations and include requirements and procedures for worker protection. All site personnel will be required to review the form and acknowledge they are aware of and fully understand its contents per 29 CFR §1910.120.

The SSP provides procedures and information for program administration, safety and health considerations, PPE, medical surveillance, training, site control, industrial hygiene monitoring programs, and the decontamination of both PPE and equipment utilized during the response.

The ICS Forms for the SSP (ICS 201-5 and ICS 208) can be accessed via the IAP Software.

The SOFR will administer the SSP. The SOFR will be available to answer questions regarding the effective implementation of the plan. The SOFR is supported by other staff personnel advisors in Safety, Industrial Hygiene, Occupational Medicine, Environmental, Operations, and Legal.

It is the responsibility of the SOFR to monitor the effectiveness of the SSP and to contact the appropriate support staff for guidance if changes to the plan are necessary.

The SOFR will enforce compliance with the SSP. Any contractor found deviating from the plan will be communicated to the appropriate contractor supervisor.

#### **6.1.3.1 Daily Safety Briefings**

Site safety meetings/briefings are the first steps in maintaining site safety. Daily meetings will be held at the start of each shift to ensure that all personnel understand site conditions and operating procedures, to ensure that PPE is being used correctly, to address worker health and safety concerns, and to communicate any changes or revisions to the Site Safety and Health Plan.

Briefing Attendance Forms shall be used to document personnel working the response operation to recognize the hazards present and the policies and procedures required to minimize exposure or adverse effects of these hazards.

#### **6.1.3.2 Visitor Policy**

All visitors should be properly trained before arrival on-site. Incident Command and the Public Information Officer/Liaison Officer, or their designee, must approve the site visit and shall coordinate visitor tours with the Operations Section Chief. The SOFR shall designate a safe route through the site and away from the on-going operations and provide for visitor escorts. The Team Leader at the task site must be notified when the visitor(s) approaches.

Visitors are expected to dress appropriately for a field visit and when required, shall wear PPE consistent with that used by workers at the response site.

##### **Visitor Policy**

- |   |   |
|---|---|
| ✓ | All visitors shall be approved before arrival at the Incident Site. |
| ✓ | All visitors to be escorted.  |

**6.1.4 Physical and Chemical Characteristics of Sable Offshore Corp. Commodities**

| Sable Offshore Corp. Commodities |                            |
|----------------------------------|----------------------------|
| ✓                                | Crude Oil                  |
| ✓                                | Refined petroleum products |
| ✓                                | HVLs                       |
| ✓                                | Gases                      |
| ✓                                | Chemicals                  |

Refer to the below references for commodity specific guidance on health hazards, routes of exposure, exposure limits, safety precautions and considerations for response, etc.

| Physical and Chemical Characteristics References |  |
|--|--|
| ✓  | Safety Data Sheet(s) - SDS   |
| ✓  | <a href="#">The National Institute for Occupational Safety and Health (NIOSH) Pocket Guide</a> |
| ✓  | <a href="#">DOT Emergency Response Guidebook</a>   |
| ✓  | American Conference of Governmental Industrial Hygienists (ACGIH) TVL/BEI Guidelines           |
| ✓  | <a href="#">29 CFR Part 1910.1000</a> Air Contaminates (Z Table)                               |



#### 6.1.5 Personal Protective Equipment (PPE)

All work shall be conducted following procedures established during pre-entry briefings and the Work Plan. PPE shall be appropriate for the hazards that are likely to be encountered.

| Personal Protective Equipment (PPE) |  |
|-------------------------------------|--|
| Respiratory:                        | Wear a positive pressure air-supplied respirator in situations where there may be potential for airborne exposure above exposure limits. If exposure concentration is unknown or if conditions immediately dangerous to life or health (IDLH) exist, use a NIOSH approved self-contained breathing apparatus (SCBA) or equivalent operated in a pressure-demand or other positive pressure mode. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. |
| Skin:                               | The use of thermally resistant gloves is recommended.  |
| Eye/Face:                           | Approved eye protection will be used to protect the face from any possible irritation or injury. Depending on conditions of use, a face shield may be necessary.   |
| Other Protective Equipment:         | A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.   |
|                                     | All other PPE used should be donned following the manufacturer's instructions and should be at an appropriate level for the task at hand.  |

See the [Occupational Safety and Health Administration's Personal Protective Equipment Document](#) for further descriptions of PPE and their application/use.

The following references contain guidance for the selection of appropriate PPE based on hazards/chemicals present.

| PPE Selection Guidance |  |
|------------------------|--|
| ✓                      | Safety Data Sheet(s) - SDS   |
| ✓                      | <a href="#">The National Institute for Occupational Safety and Health (NIOSH) Pocket Guide</a> |
| ✓                      | <a href="#">DOT Emergency Response Guidebook</a>   |

### 6.1.6 Decontamination

Additional Guidance regard Decontamination, including example site plan layouts is available from OSHA at: [Hazardous Waste - Decontamination | Occupational Safety and Health Administration \(osha.gov\)](https://www.osha.gov/publications/hazardous-waste-decontamination-occupational-safety-and-health-administration).

#### 6.1.6.1 Personnel Decontamination

Personnel responding to hazardous substance incidents may become contaminated.

| Potential Personnel Contamination |   |
|-----------------------------------|---|
| ✓                                 | Contacting vapors, gases, mists, or particulate in the air.       |
| ✓                                 | Being splashed by materials while sampling or opening containers. |
| ✓                                 | Walking through puddles of liquids or on contaminated soil.       |
| ✓                                 | Using contaminated instruments or equipment.                      |

Protective clothing and respirators help prevent the wearer from becoming contaminated or inhaling contaminants. Good work practices help reduce contamination on protective clothing, instruments, and equipment.

Even with these safeguards, contamination may occur. Harmful materials can be transferred into clean areas, exposing unprotected personnel. In removing contaminated clothing, personnel may contact contaminants on the clothing or inhale them. To prevent such occurrences, methods to reduce contamination, and decontamination procedures must be developed and established before anyone enters a site and must continue (modified when necessary) throughout site operations.

Decontamination consists of physically removing contaminants or changing their chemical nature to innocuous substances. How expansive decontamination must depend on several factors such as the type of contaminates. The more harmful the contaminant the more extensive and thorough decontamination must be. Less harmful contaminants may require less decontamination.

Only general guidance can be given on methods and techniques for decontamination. The exact procedure to use must be determined after evaluating several factors specific to the incident.

**6.1.6.2 Decontamination of Equipment**

Measures will be taken to prevent contamination of sampling and monitoring equipment. Sampling devices become contaminated, but monitoring instruments, unless they are splashed, usually do not. Once contaminated, instruments are difficult to clean without damaging them. Any delicate instrument, which cannot be easily decontaminated, will be protected while it is being used. It will be placed in a clean plastic bag, and the bag taped and secured around the instrument. Openings will be made in the bag for sample intake.

Sampling devices require special cleaning. The EPA Regional Laboratories will be consulted on proper decontamination methods.

Wood tools are difficult to decontaminate because they absorb chemicals. They will be kept on-site and handled only by protected workers. At the end of the response, wooden tools will be discarded. For decontaminating other tools, the EPA Regional Laboratories will be consulted.

Certain parts of contaminated respirators, such as the harness assembly and leather or cloth components, are difficult to decontaminate. If grossly contaminated, they may have to be discarded. Rubber components can be soaked in soap and water and scrubbed with a brush. Regulators must be maintained according to the manufacturer's recommendations. Persons responsible for decontaminating respirators will be thoroughly trained in respirator maintenance.

Bulldozers, trucks, backhoes, bulking chambers, and other heavy equipment are difficult to decontaminate. The method generally used is to wash them with water under high pressure and/or to scrub accessible parts with detergent/water solution under pressure, if possible. In some cases, shovels, scoops, and lifts have been sandblasted or steam cleaned. Care will be given to those components in direct contact with contaminants such as tires and scoops. Swipe tests will be utilized to measure effectiveness.

Respirators, reusable protective clothing, and other personal articles not only must be decontaminated before being reused but also sanitized. The inside of masks and clothing becomes soiled due to exhalation, body oils, and perspiration. The manufacturer's instructions will be used to sanitize the respirator mask. If practical, protective clothing will be machine washed after thorough decontamination, otherwise it will be cleaned by hand.

In some instances, clothing and equipment will become contaminated with substances that cannot be removed by normal decontamination procedures. A solvent may be used to remove such contamination from equipment if it does not destroy or degrade the protective material. If persistent contamination is expected, disposable garments will be used. Testing for persistent contamination of protective clothing and appropriate decontamination will be done by qualified laboratory personnel.

### 6.1.6.3 Work Zones and Control Points

Work zones prevent or reduce the migration of contamination from a site where operations occur, and access control points limit the movement of personnel and equipment between zones and onto the site itself. By these means, contamination is contained within relatively small areas and its potential for spread is minimized.

The Safety Officer will establish three contiguous zones surrounding each separate contaminated area on the site where response operations are to take place.

Movement of personnel and equipment into and out of the contaminated areas and between zones will be limited to access control points located upwind of the contaminated area.

| Response Work Zones                        |   |
|--|---|
| <b>Hot / Exclusion Zone</b>                | The innermost of the three contiguous zones is the zone where contamination is known or suspected to occur based on the results of the preliminary site characterization. All personnel working in the Exclusion Zone will be required to wear the specified Levels of Protection. (Different Levels of Protection in the Exclusion Zone may be designated based on site-specific subarea conditions and job assignments.) Entry and exit access control points will be established to regulate the flow of personnel and equipment into and out of the zone and to verify that the procedures established to enter, and exit are followed. The access control point will be located upwind of the contaminated areas along the outer boundary. |
| <b>Warm / Contamination Reduction Zone</b> | Located between the Exclusion and Support Zones. Initially, it will be a clean area designed to provide a transition between contaminated and clean areas. Zone 2 serves as a buffer to further reduce the probability of the clean zone from becoming contaminated or from being affected by other existing hazards. Decontamination of personal protective clothing and equipment will take place at a series of stations within the Contamination Reduction Corridor. This corridor extends from the Hotline of the Exclusion Zone through the Contamination Reduction Zone.   |
| <b>Cold / Support Zone</b>                 | The outermost part of the site is a clean area that may include the Field Command Post, transport vehicles, equipment, supplies, etc. Its location is dependent on accessibility, wind direction (ideally upwind from Zone 1; however, wind shifts may preclude this), and availability of resources (e.g., adequate roads, power, water, shelter). Normal work clothes are appropriate for this zone. No contaminated clothing, equipment, samples will be permitted in this zone. Traffic will be restricted to authorized response personnel.  |

**6.1.6.4 Site Plan Layout**

The SOFR will develop specific decontamination procedures for personal protective equipment and field equipment. Separate but similar procedures will be established for both field and personal protective equipment to prevent the transfer of contaminants from the Exclusion Zone.

All field equipment will be transferred from the Exclusion Zone through a separate corridor in the Contamination Reduction Corridor to a central pad in the Support Zone or another location. (Decontamination of sampling equipment for quality assurance reasons is considered a separate issue from these procedures. The Environmental Protection Agency (EPA) Regional Laboratories can provide information on proper decontamination methods.) A separate access corridor for the transport of non-contaminated equipment and personnel will extend from the Support Zone directly into the Exclusion Zone.

Personal protective equipment decontamination will take place at a series of stations placed at 3-foot intervals within the Contamination Reduction Corridor. The number of stations will depend on the amount and type of personal protective equipment.

The SOFR will identify the amounts and types of decontamination equipment and supplies required for site operations.

**6.1.7 Medical Surveillance and Monitoring**

A medical surveillance program complying with OSHA 29 CFR 1910.120(f) is available to all personnel assigned to hazardous materials response duties.

**6.2 Site Security and Control**

Security is necessary to protect the public and responders, prevent any additional damage due to sabotage, protect the equipment, and to eliminate congestion at the worksite due to unauthorized personnel.

Incidents draw attention from the public. In the event additional security resources are needed, the Company will draw upon non-Facility resources as necessary to prevent unauthorized personnel from exposure and danger at the scene; provide appropriate security; and keep the public, media, or other unauthorized personnel at a safe distance from the scene.

**Incident Security Measures**

|   |  |
|---|--|
| ✓ | Ensure access for personnel and equipment to the access point, staging area, and command center. |
| ✓ | Ensure the public does not interfere with the incident response and response operations.         |
| ✓ | Establish a perimeter (zone of safety) around the incident area.                                 |
| ✓ | Protect personnel from loss or damage and ensure the safety of the public.                       |



In major events, Sable Offshore Corp. will have access to a Sable Offshore Corp. -trained Security Specialist capable of providing on-site security and maintains contracts with firms capable of providing security personnel quickly throughout the United States. Requests for these security personnel should be directed through the Incident Commander.

Incident security will be coordinated through the Logistics Section Chief/Facilities Unit Leader, or when security is a primary focus of the response, through a Security Officer within the Command Staff.

#### **6.2.1 Limiting Road Access**

In the event road access needs to be restricted around the facility or vicinity of response activities, requests for the assistance of the sheriff's department, state police and local police, and/or fire department will be made. Assistance may include actions such as roadblocks, escort, and access control to response locations, etc.

#### **6.2.2 Temporary Flight Restrictions**

When airspace over an incident needs to be restricted, requests to the Federal Aviation Administration (FAA), through the Federal On-Scene Coordinator (FOSC), or their designated representative, for a temporary flight restriction (TFR) will be made, as appropriate.

#### **6.2.3 Maritime Safety Zones**

For incidents on the water that require exclusion of marine traffic from the incident area, contact the cognizant U.S. Coast Guard Captain of the Port (COTP) for the implementation of a safety zone.

## Section 7 Training, Drills, and Exercises

### 7.1 Response Training

Experienced, well-trained people are essential for the successful implementation of this Integrated Contingency Plan. Exercises are performed to check the effectiveness of the training and to test the plan. An ongoing training and exercise program will be carried out at the facility. In addition to maintaining maximum familiarity with all aspects of the plan, the training and exercise program is intended to provide members of the spill response team with the basic knowledge, skills, and practical experience necessary to perform safe and effective spill response operations under this plan.

#### Response Training Program

All Sable Offshore Corp. personnel know:

- |   |   |
|---|---|
| ✓ | Their responsibilities under the plan   |
| ✓ | The name and address of, and the procedures for contacting Sable Offshore Corp. on a twenty-four (24) hour basis, and |
| ✓ | The name of and procedures for contacting the QI on a twenty-four (24) hour basis                                     |

Reporting personnel know:

- |   |   |
|---|---|
| ✓ | The content of the Information Summary    |
| ✓ | The toll-free telephone number of the NRC |
| ✓ | The notification process                  |

Persons engaged in response activities know:

- |   |   |
|---|---|
| ✓ | The characteristics and hazards of the oil discharged   |
| ✓ | The conditions that are likely to worsen any emergencies, including the consequences of facility malfunctions or failures, and the appropriate corrective actions |
| ✓ | The steps necessary to control any accidental discharge of oil and to minimize the potential for fire, explosion, toxicity, or environmental damage               |
| ✓ | The proper firefighting procedures and use of equipment, fire suits and breathing apparatus   |

**7.1.1 Sable Offshore Corp. Emergency Response Training Summary****7.1.2 Response Contractor Training**

When third-party personnel are needed for clean-up operations, Sable Offshore Corp. will use fully qualified Oil Spill Removal Organization (OSRO) contractors or co-ops to perform work. Contract labor, documentation of training of the casual laborers is required. At the time contractors or co-ops sub-ocean-up operations are initiated, documentation from the contractor or co-op regarding the HAZWOPER qualification of their personnel will be obtained. Each contractor or co-op must provide a letter annually to the facility, which states that their personnel are properly trained.

All contractors responding to a spill/release that involves Sable Offshore Corp. assets will be required by their contracts to satisfy the HAZWOPER training requirements of 29 CFR 1910.120 for their position.

**7.1.3 Other Response Personnel**

Other response support personnel whose skills are needed temporarily to perform immediate incident support work (such as dump truck drivers and crane operators) are not required to meet the training requirements of this section. However, these personnel must be briefed on the potential hazards and the duties to be performed at the site before participating in response operations. They must also receive instruction in the use of any safety and PPE needed and be provided with all other appropriate safety and health precautions.

**7.1.3.1 Specialist Employees**

Specialist employees are experts who would provide technical advice or guidance during response to an incident. Examples of such specialists might include chemists, biologists, industrial hygienists, physicians, or others with skills useful during a spill response operation. Such persons must receive appropriate training or demonstrate competency in their specialty annually. There are no specific requirements on training content or hours of training for these persons except that it entails whatever is necessary to maintain competency in their specific area of expertise. Training and demonstration of competency for skilled support personnel and specialists should be documented.

**7.1.3.2 Casual Laborers**

Casual laborers will generally not be hired but may be employed by Sable Offshore Corp. response contractors or other response organizations. Contractors will be responsible for providing the appropriate HAZWOPER training to these laborers prior to their involvement in response operations.

**7.1.3.3 Volunteers**

Volunteers will not normally be used during an Sable Offshore Corp. incident response. However, if during an incident response, the Unified Command requests the use of volunteers, the guidance provided in the applicable Area Contingency Plan will be used.

## 7.2 Response Exercise Program

Sable Offshore Corp. has adopted the drill and exercise procedures contained with the [National Preparedness for Response and Exercise Program Guidelines](#) (PREP Guidelines).

Where applicable, state exercise requirements will also be met (i.e., Cal OSPR).

### 7.2.1 Internal Exercises

Internal exercises are those that are conducted wholly within Sable Offshore Corp.. The internal exercises test the various components of the response plan to ensure the plan adequately meets the OPA '90 requirements for spill response.

| Internal Exercises |   |
|--------------------|---|
| ✓                  | Qualified Individual (QI) / Incident Commander (IC) Notification Exercises (Facilities)*. |
| ✓                  | Internal Notification Exercises (Maintenance Groups) *.                                   |
| ✓                  | Spill Management Team Tabletop Exercises.   |
| ✓                  | Equipment Deployment Exercises (Facility-Owned Equipment).                                |
| ✓                  | Equipment Deployment Exercises (Response Contractors).                                    |

All the internal exercises will be self-evaluated and self-certified.

### 7.2.2 External Exercises

The external exercises (Area Exercises) go outside Sable Offshore Corp. to test the interaction of Sable Offshore Corp. with the response community. The external exercises will test Sable Offshore Corp.'s entire plan and the coordination with members of the response community necessary to conduct an effective response to a pollution incident.

EPA, the USCG, DOT/PHMSA, State and Local agencies, and industry conduct Area Exercises in cooperation to exercise the Area Contingency Plan. This is a large-scale exercise that is planned and evaluated by all parties involved.

#### 7.2.3 Exercise Cycle

Each component of this plan must be exercised at least once in the triennial cycle. In the triennial cycle, the following exercises must be conducted at the facility:

| Triennial Cycle   |           |   |  |
|---|-----------|---|--|
| Frequency   |           | Exercise Type/ Description                                  | Comments   |
| Annual  | Triennial |   |  |
| 4   | 12        | QI Notification Exercise**                                  | This is a quarterly phone call/page to the QI or Alt. QI when they are not on site. The person calling needs to ask how long it would take the QI/Alt QI to reach the site if there were a spill |
| 2*  | 6         | Equipment Deployment Exercise<br>(Facility-owned equipment) | Equipment requiring deployment exercises are hard boom and skimmers.   |
| 1   | 3         | Response Team Tabletop Exercise                             | In the triennial cycle, one SMT TTX must involve a worst-case discharge scenario.  |
| 1   | 3         | Equipment Deployment Exercise<br>(OSRO-owned equipment)     | Letter stating that the OSRO has met the OSRO requirements for deployment in a similar environment.  |
| <p>*Semi-Annual – EPA and USCG / Annually- DOT/PHMSA</p> <p>** At least once a year the exercise should be conducted outside of regular business hours and unannounced.</p> |           |   |  |

Annually, one of the above IMT or Facility Owned Equipment Exercises must be conducted as an unannounced exercise.



#### **7.2.4 Credit for Actual Response / Completed Exercises**

All drills, exercises, and actual incidents will be critiqued. If appropriate, the information derived from the critique will be incorporated into the ICP.

Plan holders should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated.

Drill and exercise credit should be taken for an actual incident when all appropriate PREP objectives are met, the response was evaluated, and the proper documentation was generated.

#### **7.2.5 Certification Process**

All internal exercises will be self-evaluated and self-certified by the owner or operator. Following an exercise or actual event, the responders should complete a critique of their response. The evaluation form located in this section should include The Company facility name, exercise date, type of exercise conducted, response plan, or zone exercised, and participants. This form is to be signed by the Incident Commander or Exercise Facilitator; then filed and retained for a minimum of five years at the facility.

### **7.3 Recordkeeping**

Records are kept under usual and customary business practices in the asset's files for a minimum of five (5) years, unless required longer by the standard employee or state/local requirements.

These records will be available for inspection. Requests for inspection of training records should be made through the appropriate department.

#### **7.3.1 Training Records**

Sable Offshore Corp. will maintain records sufficient to document training of its spill response team members, volunteers, and contractors.

All records will be made available for inspection upon request. The Sable Offshore Corp. OSROs will maintain records sufficient to document training of the organization's personnel for a period of five (5) years or for as long as an individual is assigned duties under the response plan. These records will be available for inspection upon request by Sable Offshore Corp. management personnel, its Qualified Individuals, or agency representative.

#### **7.3.2 Drill Records**

Sable Offshore Corp. will ensure that records sufficient to document drills are maintained for a period of five (5) years following completion of drills. Similarly, Sable Offshore Corp. will ensure that records sufficient to document drills of its oil spill response organization and response resources identified in this plan are maintained for five (5) years. All records will be made available for inspection upon request by any federal agency representative.

#### 7.3.3 Example Training and Exercise Forms

Sample Exercise forms and the PREP Components Evaluation Worksheet are available in the [Incident Action Plan \(IAP\) Software™](#).


##### 7.3.3.1 Training Documentation Form

| Training Documentation Form   |  |                   |  |                   |
|---|--|-------------------|--|-------------------|
| Training:   |  | Date:             |  |                   |
| Work Group/Location:  |  |                   |  |                   |
| By signing this form, I verify/certify receiving the above regulatory training on the date indicated. |  |                   |  |                   |
| Name<br>(Signature)   |  | Name<br>(Printed) |  | Company Or Agency |
|   |  |                   |  |                   |
|   |  |                   |  |                   |
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|   |  |                   |  |                   |
|   |  |                   |  |                   |
| INSTRUCTOR'S<br>SIGNATURE:  |  |                   |  | Page      of      |

## Discharge Prevention Log


[illegible]

#### 7.3.3.3 QI Notification Exercise Form

|  |  |   |  |  |
|--|--|---|--|--|
| <b>QI Notification Exercise</b>              |  | <b>Version Name:</b>  |  |  |
| Incident Name:                               |  |   |  |  |
| Facility Name                                |  |   |  |  |
| Exercise/ Actual Response                    | <input type="checkbox"/> Exercise                |   | <input type="checkbox"/> Actual Response         |  |
| Quarter                                      | <input type="checkbox"/> 1 <sup>st</sup> Quarter | <input type="checkbox"/> 2 <sup>nd</sup> Quarter                                      | <input type="checkbox"/> 3 <sup>rd</sup> Quarter | <input type="checkbox"/> 4 <sup>th</sup> Quarter |
| Contact Person                               |  |   |  |  |
| Qualified Individual                         |  |   |  |  |
| Time of Initial Call                         |  |   |  |  |
| Number Called                                |  |   |  |  |
| Time of Contact with QI                      |  |   |  |  |
| Number of Calls Required                     |  |   |  |  |
| Type of Comm Used:                           | <input type="checkbox"/> Phone                   | <input type="checkbox"/> Pager  | <input type="checkbox"/> Radio                   |  |
| <b>Description of Incident/Exercise</b>      |  |   |  |  |
|  |  |   |  |  |
| <b>Incident/Exercise Evaluation Comments</b> |  |   |  |  |
|  |  |   |  |  |
| <b>Notes</b>                                 |  |   |  |  |
|  |  |   |  |  |
| <b>Signature</b>                             |  |   |  |  |
| Certifying Signature                         |  |   |  |  |
| Print Name                                   |  |   |  |  |
| <b>QI Notification Exercise</b>              | <b>Prepared By:</b>                              | <b>At:</b>  |  |  |
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## 7-9




|   |  |   |   |
|---|--|---|---|
| <b>Equipment Deployment Exercise</b>  |  | Version Name:   |   |
| Incident Name:  |  | Period:   | to  |
| <b>Evaluation</b>   |  |   |   |
| Describe goals of the equipment deployment and list any Area Contingency Plan or other Governmental Plan strategies tested. (Attach a sketch of equipment deployments and booming strategies) |  |   |   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No  |  | For deployment of facility-owned equipment, was the amount of equipment deployed at least the amount necessary to respond to your facility's average most probably spill? (explain below)                                   |   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No  |  | Was the equipment deployed in its intended operating environment? (explain below)   |   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No  |  | For deployment of OSRO/Co-Op/HSRO-owned equipment, was a representative sample (1000 feet of each boom type, or as appropriate, and at least one of each skimmer type) deployed? (explain below)                            |   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No  |  | Was the equipment deployed in its intended operating environment? (explain below)   |   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No  |  | Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all pollution response equipment involved in a comprehensive maintenance program? (explain below) |   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No  |  | Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill?   |   |
| <input type="checkbox"/> Yes <input type="checkbox"/> No  |  | Was all deployed equipment operational? If not, explain below.  |   |
| <b>PREP Components Used</b>   |  |   |   |
| <input type="checkbox"/>  | Notifications  |   |   |
| <input type="checkbox"/>  | Staff Mobilization   |   |   |
| <input type="checkbox"/>  | Operations Within the Response Management System Described |   |   |
| <input type="checkbox"/>  | Source Control   |   |   |
| <input type="checkbox"/>  | Assessment   |   |   |
| <input type="checkbox"/>  | Containment  |   |   |
| <input type="checkbox"/>  | Recovery   |   |   |
| <input type="checkbox"/>  | Protection   |   |   |
| <input type="checkbox"/>  | Disposal   |   |   |
| <input type="checkbox"/>  | Communications   |   |   |
| <input type="checkbox"/>  | Transportation   |   |   |
| <input type="checkbox"/>  | Personnel Support  |   |   |
| <input type="checkbox"/>  | Equipment Maintenance and Support                          |   |   |
| <input type="checkbox"/>  | Procurement  |   |   |
| <input type="checkbox"/>  | Documentation  |   |   |
| <b>Equipment Deployment Exercise</b>  |  | Prepared By:  | At:   |
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#### 7.3.3.5 Incident/Management Team Tabletop Exercise

|   |   |   |   |
|---|---|---|---|
| <b>Incident Management Team Tabletop Exercise</b>   |   | Version Name:   |   |
| Incident Name:  |   |   |   |
| <b>Incident Type:</b>   |   |   |   |
| <b>Exercise Type:</b>   |   | <input type="checkbox"/> Announced Exercise <input type="checkbox"/> Unannounced Exercise <input type="checkbox"/> Actual Response  |   |
| <b>Location:</b>  |   |   |   |
| <b>Start:</b>   |   | <b>End Date:</b>  |   |
| <b>Scenario Used:</b>   |   | <input type="checkbox"/> Small Spill (Avg MPD) <input type="checkbox"/> Medium Spill (Max MPD) <input type="checkbox"/> Worst Case Discharge <input type="checkbox"/> N/A |   |
| <b>Size of Spill:</b>   |   |   |   |
| <b>Evaluation of Exercise / Incident</b>  |   |   |   |
| Did the Spill Management Team (SMT) utilize the ERP during the exercise?                          |   | <input type="checkbox"/> Yes  | <input type="checkbox"/> No   |
| Were internal and external Notifications made per the Emergency Response Plan?                    |   | <input type="checkbox"/> Yes  | <input type="checkbox"/> No   |
| Were the communications systems adequate?   |   | <input type="checkbox"/> Yes  | <input type="checkbox"/> No   |
| Were the Response Contractor(s)/Oil Spill Removal Organization(s) (OSRO)/Co-Op(s) notified?       |   | <input type="checkbox"/> Yes  | <input type="checkbox"/> No   |
| Was there good coordination with On-Scene Coordinator, State, and applicable government/agencies? |   | <input type="checkbox"/> Yes  | <input type="checkbox"/> No   |
| Was sensitive Site and Resource Information in the Emergency Response Plan accessed as needed?    |   | <input type="checkbox"/> Yes  | <input type="checkbox"/> No   |
| <b>Components Used</b>  |   | <b>Comments</b>   |   |
| <input type="checkbox"/>  | Notifications   |   |   |
| <input type="checkbox"/>  | Staff Mobilization  |   |   |
| <input type="checkbox"/>  | Operation Within the Response Management System Described |   |   |
| <input type="checkbox"/>  | Source Control  |   |   |
| <input type="checkbox"/>  | Assessment  |   |   |
| <input type="checkbox"/>  | Containment   |   |   |
| <input type="checkbox"/>  | Recovery  |   |   |
| <input type="checkbox"/>  | Protection  |   |   |
| <input type="checkbox"/>  | Disposal  |   |   |
| <input type="checkbox"/>  | Communications  |   |   |
| <input type="checkbox"/>  | Transportation  |   |   |
| <input type="checkbox"/>  | Personnel Support   |   |   |
| <input type="checkbox"/>  | Equipment Maintenance and Support                         |   |   |
| <input type="checkbox"/>  | Procurement   |   |   |
| <input type="checkbox"/>  | Documentation   |   |   |
| <b>Incident Management Team Tabletop Exercise</b>   |   | Prepared By:  | at  |
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|   |  |               |   |
|---|--|---------------|---|
| <b>Incident Management Team Tabletop Exercise</b> |  | Version Name: |   |
| Incident Name:                                    |  |               |   |
| <i>Lessons Learned</i>                            |  |               |   |
|   |  |               |   |
| <i>Notes</i>                                      |  |               |   |
|   |  |               |   |
| <i>Signature</i>                                  |  |               |   |
| Certifying Signature                              |  |               |   |
| Print Name  |  |               |   |
| <b>Incident Management Team Tabletop Exercise</b> |  | Prepared By:  | at  |
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### 7.3.3.6 Drill/Exercise Critique and Lessons Learned Report

|                                |              |   |
|--------------------------------|--------------|---|
| <b>Incident Critique</b>       |              |   |
| Incident Name:                 |              |   |
| Section:                       |              |   |
| <i>Things That Went Well</i>   |              |   |
|                                |              |   |
| <i>Areas For Improvement</i>   |              |   |
|                                |              |   |
| <i>Additional Comments</i>     |              |   |
|                                |              |   |
| <b>Incident Critique</b>       | Prepared By: | at  |
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Section 8 Reserved

Section 9 Reserved

Section 10 Reserved



# **Pacific Pipeline Company Integrated Contingency Plan Las Flores Canyon Response Zone**

**12000 Calle Real  
Goleta, California 93117**

**CAL OSPR # TBD  
PHMSA Sequence # TBD**

*Developed by:*

***The Response Group***  
Emergency Response Pre-Planning & Support

**Houston TX, New Orleans LA, Anchorage AK  
[www.responsegroupinc.com](http://www.responsegroupinc.com)  
281.880.5000**



**Las Flores Pipeline System Information Summary**

| Pipeline Information Summary                            |  |
|---|--|
| <b>Response Zone Name:</b>                              | Las Flores Pipeline System   |
| <b>Pipelines</b><br>(See Section 11 for greater detail) | Las Flores Pipeline (Las Flores Canyon to Gaviota)<br>CA-324 (Las Flores Canyon to Gaviota)                |
|   | Las Flores Pipeline (Gaviota to Pentland)<br>CA-325A (Gaviota to Sisquoc)<br>CA-325B (Sisquoc to Pentland) |
|   |  |
| <b>Product</b>  | Crude  |
| <b>Counties</b>   | Santa Barbara, San Luis Obispo, Kern   |
| <b>State</b>  | California   |
| <b>Owner</b>  | Pacific Pipeline Company<br>845 Texas Ave., Suite 2920<br>Houston, TX 77002                                |
| <b>Operator</b>   | Sable Offshore Corp.<br>845 Texas Ave., Suite 2920<br>Houston, TX 77002                                    |
| <b>Emergency Phone Number</b>                           | <b>805-567-9543</b>  |
| <b>Hours of Operation</b>                               | 24/7   |
| <b>Regular Daily Throughput</b>                         | 0 bpd. The lines are active but have been nitrogen purged and idled.                                       |
| <b>WCD/RWCS</b>   | 0 bbls while the lines are active, but idled   |
| <b>Qualified Individuals</b>                            | Primary – Jeff Patterson<br>805-961-4080 office<br>805-832-7234 cell                                       |
|   | Alternate – Justin Crowell<br>805-961-4055 office<br>805-714-5707 cell                                     |
|   | Alternate – Brian Smith<br>805-571-0426 office<br>805-701-7575 cell  |



## Notification Quick Guide

Per [14 CCR 817.02\(g\)\(2\)](#), notification to the California Office of Emergency Services, the National Response Center, and Oil Spill Removal Organizations must be made no longer than **30 minutes** after discovery of a discharge or threatened discharge.

### Notification Quick Guide

| Code  | Contact  | Phone                        | Name Of Person<br>Taking Report | Date/<br>Time | Case #<br>(If provided) | Name Of Person<br>Making Report |
|---|--|------------------------------|---------------------------------|---------------|-------------------------|---------------------------------|
| <b>Internal Notifications</b>   |  |                              |                                 |               |                         |                                 |
| QI  | <b>Jeff Patterson</b>                                | 805-961-4080<br>805-832-7234 |                                 |               |                         |                                 |
| Alt. QI   | <b>Justin Crowell</b>                                | 805-961-4055<br>805-714-5707 |                                 |               |                         |                                 |
| Alt. QI   | <b>Brian Smith</b>                                   | 805-571-0426<br>805-701-7575 |                                 |               |                         |                                 |
| <b>OSRO and Support Services</b>  |  |                              |                                 |               |                         |                                 |
| OSRO  | <b>MSRC</b>  | 800-645-7745<br>800-259-6772 |                                 |               |                         |                                 |
| OSRO  | <b>Patriot Environmental</b>                         | 800-624-9136                 |                                 |               |                         |                                 |
| IAP   | The Response Group                                   | 281-880-5000<br>713-906-9866 |                                 |               |                         |                                 |
| <b>Priority – External Communications, including Regulation and Emergency Officials</b> |  |                              |                                 |               |                         |                                 |
| CA-1  | Office of Emergency Services State<br>Warning Center | 800-852-7550<br>916-845-8911 |                                 |               |                         |                                 |
| FED-1   | National Response Center                             | 800-424-8802                 |                                 |               |                         |                                 |
| Local -1  | Local Sheriff / Police                               | 911                          |                                 |               |                         |                                 |



### Notification Quick Guide

| Code                           | Contact  | Phone                        | Name Of Person<br>Taking Report | Date/<br>Time | Case #<br>(If provided) | Name Of Person<br>Making Report |
|--------------------------------|--|------------------------------|---------------------------------|---------------|-------------------------|---------------------------------|
| CA-10                          | Oiled Wildlife Care Network (OWCN)                                     | 877-823-6926                 |                                 |               |                         |                                 |
| <b>Santa Barbara County</b>    |  |                              |                                 |               |                         |                                 |
| Local-1                        | CUPA – Santa Barbara County<br>Environmental Health Services (24-hr)   | 911<br>805-681-4927          |                                 |               |                         |                                 |
| Local -2                       | OEM Duty Officer   | 805-696-1194                 |                                 |               |                         |                                 |
| Local -3                       | SBC Fire Captain   | 805-319-0189<br>805-264-1855 |                                 |               |                         |                                 |
| Local -4                       | SBC Planning Department. Energy  | 805-886-7165                 |                                 |               |                         |                                 |
| Local -5                       | LEPC Region 1  | 310-781-7000<br>562-795-2958 |                                 |               |                         |                                 |
| Local 5                        | LEPC Region 5  | 916-396-9292                 |                                 |               |                         |                                 |
| Local-6                        | Santa Maria Valley Water Conservation<br>District / Twitchell Dam      | 805-925-5212                 |                                 |               |                         |                                 |
| <b>San Louis Obispo County</b> |  |                              |                                 |               |                         |                                 |
| Local-1                        | CUPA – San Luis Obispo County<br>Environmental Health Services (24-Hr) | 911<br>805-781-5554          |                                 |               |                         |                                 |
| Local -2                       | SLO OEM  | 805-781-5678                 |                                 |               |                         |                                 |
| Local -3                       | SLO Fire   | 805-503-9350                 |                                 |               |                         |                                 |
| Local -4                       | SLO Planning   | 805-686-8170                 |                                 |               |                         |                                 |
| Local -5                       | LEPC Region 1  | 310-781-7000<br>562-795-2958 |                                 |               |                         |                                 |



### Notification Quick Guide

| Code                    | Contact  | Phone                        | Name Of Person<br>Taking Report | Date/<br>Time | Case #<br>(If provided) | Name Of Person<br>Making Report |
|-------------------------|--|------------------------------|---------------------------------|---------------|-------------------------|---------------------------------|
| Local -5                | LEPC Region 5  | 916-396-9292                 |                                 |               |                         |                                 |
| <b>Kern County</b>      |  |                              |                                 |               |                         |                                 |
| Local-1                 | CUPA – Kern County Public Health<br>Services (24-hr)             | 911<br>661-321-3000          |                                 |               |                         |                                 |
| Local -2                | Kern County OEM  | 661-324-6551                 |                                 |               |                         |                                 |
| Local -3                | Kern County EOC  | 661-873-2602                 |                                 |               |                         |                                 |
| Local -4                | LEPC Region 1  | 310-781-7000<br>562-795-2958 |                                 |               |                         |                                 |
| Local -4                | LEPC Region 5  | 916-396-9292                 |                                 |               |                         |                                 |
| <b>California State</b> |  |                              |                                 |               |                         |                                 |
| CA-1                    | <b>Office of Emergency Services State<br/>Warning Center</b>     | 800-852-7550<br>916-845-8911 |                                 |               |                         |                                 |
| CA-2                    | California Emergency Management Agency                           | 800-852-7550<br>916-845-8911 |                                 |               |                         |                                 |
| CA-3                    | Central Valley Regional WQCB                                     | 559-445-5116                 |                                 |               |                         |                                 |
|                         | Central Coast Regional WQCB                                      | 916-464-3291                 |                                 |               |                         |                                 |
| CA-4                    | OSPR - Office of Spill Prevention &<br>Response                  | 800-852-7550                 |                                 |               |                         |                                 |
| CA-5                    | California State Lands Commission, Marine<br>Facilities Division | 562-499-6312<br>510-741-4984 |                                 |               |                         |                                 |
| CA-6                    | California Marine Exchange                                       | 310-519-3134                 |                                 |               |                         |                                 |



### Notification Quick Guide

| Code           | Contact  | Phone                        | Name Of Person<br>Taking Report | Date/<br>Time | Case #<br>(If provided) | Name Of Person<br>Making Report |
|----------------|--|------------------------------|---------------------------------|---------------|-------------------------|---------------------------------|
| CA-7           | Cal OSHA   | 800-963-9424<br>408-452-7288 |                                 |               |                         |                                 |
| CA-8           | California Highway Patrol                          | 805-683-2724                 |                                 |               |                         |                                 |
| CA-9           | California State Fire Marshall                     | 562-497-9100<br>916-445-8550 |                                 |               |                         |                                 |
| CA-10          | Oiled Wildlife Care Network (OWCN)                 | 877-823-6926                 |                                 |               |                         |                                 |
| <b>Federal</b> |  |                              |                                 |               |                         |                                 |
| FED-1          | <b>National Response Center</b>                    | 800-424-8802                 |                                 |               |                         |                                 |
| FED-2          | EPA Region IX                                      | 800-300-2193                 |                                 |               |                         |                                 |
| FED-3          | Pipeline and Hazardous Materials<br>Administration | 202-366-4595                 |                                 |               |                         |                                 |
| FED-4          | Chemical Safety and Hazard<br>Investigations Board | 202-261-7600                 |                                 |               |                         |                                 |
| FED-5          | U.S. Coast Guard Sector Los Angeles                | 800-221-8724<br>310-521-3805 |                                 |               |                         |                                 |
| FED-6          | OSHA   | 916-396-9292                 |                                 |               |                         |                                 |

**California Plan Certification****Management Certification**

I certify, to the best of my knowledge and belief, under penalty of perjury under the laws of the State of California, that the information contained in this contingency plan is true and correct and that the plan is both feasible and executable.

Manpower, equipment, and materials will be provided as required in accordance with this Plan. The Company is dedicated to protection of the environment and commits to implement the necessary measures, as specified in the Plan, as necessary in a spill response emergency.

The Company has contracted through certified OSRO(s) to ensure the necessary personnel, equipment and resources are available to respond to a discharge within appropriate response times.

This Plan has been prepared in accordance with and is consistent to the National Contingency Plan and the regional ACP.

**CERTIFICATION SIGNATURE:**  
Signature

\_\_\_\_\_  
President  
Title

\_\_\_\_\_  
J. Caldwell Flores  
Name (Please type or print)

\_\_\_\_\_  
Date



**Significant and Substantial Harm Determination****PHMSA Significant and Substantial Harm and Certification of Response Resources**

Facility Name: **Las Flores Pipeline**  
Facility Address: 12050 Calle Real  
Goleta, CA 93117

Is the pipeline greater than 6 and 5/8 inches (168 mm) in outside nominal diameter, greater than 10 miles (16 kilometers) in length? And

YES ☒NO ☐

Has any line section experienced a release greater than 1,000 barrels (159 cu. meters) within the previous five years? Or

YES ☐NO ☒

Has any line section experienced two or more reportable releases, as defined in Sec. 195.50, within the previous five years? Or

YES ☐NO ☒

Does any line section contain any electric resistance welded pipe, manufactured prior to 1970 and operates at a maximum operating pressure established under Sec. 195.406 that corresponds to a stress level greater than 50 percent of the specified minimum yield strength of the pipe? Or

YES ☐NO ☒

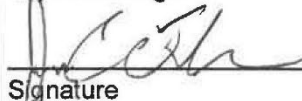
Is any line located within a 5-mile (8 km) radius of potentially affected public drinking water intakes and could reasonably be expected to reach public drinking water intakes? Or

YES ☒NO ☐

Is any line located within a 1-mile (1.6 km) radius of potentially affected environmentally sensitive areas and could reasonably be expected to reach these areas?

YES ☒NO ☐

Sable Offshore Corp. hereby certifies to the Pipeline and Hazardous Materials Safety Administration of the Department of Transportation that we have identified and ensured, by contract or by other means, the availability of personnel and equipment to respond, to the maximum extent practicable, to a worst case discharge.

  
Signature

President

Title

J. Caldwell Flores

Name (Please type or print)

Date

## **Certification of Financial Responsibility**

The COFR application has been submitted to CalOSPR. They will be added to the plan upon receipt.

## Review Log

### Review Log

This manual was reviewed as indicated below:

| Name:                | Date:     | Remarks: |
|----------------------|-----------|----------|
| Sable Offshore Corp. | Feb. 2024 | New plan |

## Revision Log

### Revision Log

This manual was reviewed as indicated below:

| Name:                     | Date:     | Revision Number: | Sections Revised: |
|---------------------------|-----------|------------------|-------------------|
| TRG/ Sable Offshore Corp. | Feb. 2024 | 1                | New plan          |

## Plan Distribution

The Emergency Preparedness, Response and Security Advisor is responsible for maintenance and distribution of the Plan. Distribution will be handled in the following manner:

- This plan is designed to be electronically based.
- If the electronic plan is inaccessible, bound copies of the plan are available to the response team for their use during an emergency incident (and for outside response teams as well).
- The following Distribution List is provided to facilitate control.
- Company personnel who may be called upon to provide assistance during emergency response activities will have access to the Plan for their use and training.
- Certain individuals will be assigned to maintain bound copies of the Plan. It is the responsibility of any person holding a copy of the Plan to ensure that the copy is transferred to their replacement in the event of reassignment or change in responsibility.
- Copies of the Plan will also be distributed to various regulatory agencies. The list of agencies is provided in the Distribution List below.

| Distribution List  |                |            |
|--|----------------|------------|
| Recipient  | Plan Type Held |            |
|  | Hard           | Electronic |
| Sable Offshore Corp.                                     |                |            |
| Las Flores Canyon Facility                               |                |            |
| California OSPR  |                |            |
| California State Fire Marshall                           |                |            |
| California State Coastal Commission                      |                |            |
| California State Lands Commission                        |                |            |
| Pipeline and Hazardous Materials Safety Administration   |                |            |
| Santa Barbara County Planning and Development Department |                |            |
| Santa Barbara County Fire Department                     |                |            |
| Santa Barbara Office of Emergency Management             |                |            |
| Kern County Environmental Health Division                |                |            |
| US. Coast Guard Sector San Francisco                     |                |            |



## Regulatory Cross Reference

| Applicable Regulations |                 |   |
|------------------------|-----------------|---|
| Agency                 | Section         | Subject                                 |
| PHMSA                  | 49 CFR 194      | Facility Response Plan                  |
| PHMSA                  | 49 CFR 195      | Pipeline Emergency Response Procedures  |
| OSHA                   | 29 CFR 1910.120 | Emergency Response Plan                 |
| Cal OSPR               | 14 CCR 817.04   | Inland Facility Oil Spill Response Plan |
| Cal OSPR               | 14 CCR 817.02   | Marine Facility Oil Spill Response Plan |

### PHMSA 49 CFR Part 194

| DOT/PHMSA 49 CFR Part 194 |  |                                      |
|---------------------------|--|--------------------------------------|
| § 194.103                 | Brief Description  | Location                             |
| (a)                       | Each operator shall submit a statement with its response plan, as required by §§194.107 and 194.113, identifying which line sections in a response zone can be expected to cause significant and substantial harm to the environment in the event of a discharge of oil into or on the navigable waters or adjoining shorelines. | Preface                              |
| § 194.105                 | Brief Description  | Location                             |
| (a)                       | Each operator shall determine the worst-case discharge for each of its response zones and provide the methodology, including calculations, used to arrive at the volume.   | Sec 14.1,<br>Sec 14.2                |
| (b)                       | The worst case discharge is the largest volume, in barrels, of the following (b)(1-4)  | Sec 14.2                             |
| § 194.107                 | Brief Description  | Location                             |
| (a)                       | Each response plan must plan for resources for responding, to the maximum extent practicable, to a worst-case discharge, and to a substantial threat of such a discharge.  | Sec 13.1,<br>Sec 13.3,<br>Sec 13.4.1 |
| (b)                       | An operator must certify in the response plan that it reviewed the NCP and each applicable ACP and that its response plan is consistent with the NCP and each applicable ACP as follows:   | Sec 1.3.4                            |
| (b)(1)                    | As a minimum to be consistent with the NCP as a facility response plan must:   | --                                   |

### DOT/PHMSA 49 CFR Part 194

|                  |   |                                 |
|------------------|---|---------------------------------|
| (b)(1)(i)        | Demonstrate an operator's clear understanding of the function of the Federal response structure, including procedures to notify the National Response Center reflecting the relationship between the operator's response organization's role and the Federal On Scene Coordinator's role in pollution response; | Sec 4                           |
| (b)(1)(ii)       | Establish provisions to ensure the protection of safety at the response site; and   | Sec 6.1                         |
| (b)(1)(iii)      | Identify the procedures to obtain any required Federal and State permissions for using alternative response strategies such as in-situ burning and dispersants as provided for in the applicable ACPs; and  | Sec 5.5,<br>Sec 14.6            |
| (b)(2)           | At a minimum, to be consistent with the applicable ACP the plan must:   | --                              |
| (b)(2)(i)        | Address the removal of a worst-case discharge and the mitigation or prevention of a substantial threat of a worst-case discharge;   | Sec 5<br>Sec 14.4               |
| (b)(2)(ii)       | Identify environmentally and economically sensitive areas;  | Sec 15                          |
| <b>§ 194.107</b> | <b>Brief Description</b>  | <b>Location</b>                 |
| (b)(2)(iii)      | Describe the responsibilities of the operator and of Federal, State and local agencies in removing a discharge and in mitigating or preventing a substantial threat of a discharge; and   | Sec 4                           |
| (b)(2)(iv)       | Establish the procedures for obtaining an expedited decision on use of dispersants or other chemicals.  | Sec 5.5.1,<br>Sec 14.6          |
| (c)              | Each response plan must include:  | --                              |
| (c)(1)           | A core plan consisting of --  | --                              |
| (c)(1)(i)        | An information summary as required in § 194.113,  | Preface<br>Sec 11               |
| (c)(1)(ii)       | Immediate notification procedures,  | Preface<br>Sec 12.1<br>Sec 12.2 |
| (c)(1)(iii)      | Spill detection and mitigation procedures,  | Sec 2.3,<br>Sec 5               |
| (c)(1)(iv)       | The name, address, and telephone number of the oil spill response organization, if appropriate,   | Sec 13.3,<br>Sec 13.4           |

### DOT/PHMSA 49 CFR Part 194

|                  |  |                                     |
|------------------|--|-------------------------------------|
| (c)(1)(v)        | Response activities and response resources,  | Sec. 13.3,<br>Sec 13.4,<br>Sec 14.4 |
| (c)(1)(vi)       | Names and telephone numbers of Federal, state, and local agencies which the operator expects to have pollution control responsibilities or support,  | Preface<br>Sec 12.2                 |
| (c)(1)(vii)      | Training procedures,   | Sec 7                               |
| (c)(1)(viii)     | Equipment testing,   | Sec 2.2                             |
| (c)(1)(ix)       | Drill program – an operator will satisfy the requirement for a drill program by following the National Preparedness for Response Exercise Program (PREP) guidelines. An operator choosing not to follow PREP guidelines must have a drill program that is equivalent to PREP. The operator must describe the drill program in the response plan and OPS will determine if the program is equivalent to PREP.   | Sec 7.2                             |
| (c)(1)(x)        | Plan review and update procedures;   | Sec 1.4.1                           |
| (c)(2)           | An appendix for each response zone that includes the information required in paragraph (c)(1)(i)-(ix) of this section and the worst-case discharge calculations that are specific to that response zone. An operator submitting a response plan for a single response zone does not need to have a core plan and a response zone appendix. The operator of a single response zone onshore pipeline shall have a single summary in the plan that contains the required information in § 194.113.7; and. | Sec 14.1<br>Sec 14.2                |
| (c)(3)           | A description of the operator's response management system including the functional areas of finance, logistics, operations, planning, and command. The plan must demonstrate that the operator's response management system uses common terminology and has a manageable span of control, a clearly defined chain of command, and sufficient trained personnel to fill each position.   | Sec 4                               |
| <b>§ 194.109</b> | <b>Brief Description</b>   | <b>Location</b>                     |
| (a)              | In lieu of submitting a response plan required by 194.103, an operator may submit a response plan that complies with a state law or regulation, if the state law or regulation requires a plan provides equivalent or greater spill protection than a plane required under this part.  | --                                  |
| <b>§ 194.111</b> | <b>Brief Description</b>   | <b>Location</b>                     |

### DOT/PHMSA 49 CFR Part 194

|                  |  |   |
|------------------|--|---|
| (a)              | Each operator shall maintain relevant portions of its response plan at the operator's headquarters and at other locations from which response activities may be conducted, for example, in field offices, supervisor's vehicles, or spill response trailers. | --  |
| (b)              | Each operator shall provide a copy of its response plan to each qualified individual.  | --  |
| <b>§ 194.113</b> | <b>Brief Description</b>   | <b>Location</b>                             |
| (a)              | The information summary for the core plan, required by § 194.107, must include:  | --  |
| (a)(1)           | The name and address of the operator.  | Sec 11.1                                    |
| (a)(2)           | For each response zone which contains one or more line sections that meet the criteria for determining significant and substantial harm as described in § 194.103, a listing and description of the response zones, including county(s) and state(s).        | Sec 11.1                                    |
| (b)              | The information summary for the response zone appendix, required in § 194.107, must include:   | --  |
| (b)(1)           | The information summary for the core plan.   | Preface<br>Sec 11.1                         |
| (b)(2)           | The names or titles and 24-hour telephone numbers of the qualified individual(s) and at least one alternate qualified individual(s);   | Preface<br>Sec 11.1                         |
| (b)(3)           | The description of the response zone, including county(s) and state(s), for those zones in which a worst-case discharge could cause substantial harm to the environment.   | Preface<br>Sec 11.1                         |
| (b)(4)           | A list of line sections for each pipeline contained in the response zone, identified by milepost or survey station number, or other operator designation.  | Preface<br>Sec 11.1<br>Sec 11.2             |
| (b)(5)           | The basis for the operator's determination of significant and substantial harm.  | Preface                                     |
| (b)(6)           | The type of oil and volume of the worst-case discharge.  | Preface<br>Sec 11.1<br>Sec 14.1<br>Sec 14.2 |
| <b>§ 194.115</b> | <b>Brief Description</b>   | <b>Location</b>                             |

### DOT/PHMSA 49 CFR Part 194

|                  |   |                 |
|------------------|---|-----------------|
| (a)              | Each operator shall identify and ensure, by contract or other approved means, the resources necessary to remove, to the maximum extent practicable, a worst-case discharge and to mitigate or prevent a substantial threat of a worst-case discharge. | Sec 13.3        |
| (b)              | An operator shall identify in the response plan the response resources, which are available to respond within the time specified, after discovery of a worst-case discharge, or to mitigate the substantial threat of such a discharge.               | Sec 13.3        |
| <b>§ 194.117</b> | <b>Brief Description</b>  | <b>Location</b> |
| (a)              | Each operator shall conduct training to ensure that:  | Sec 7.1         |
| (a)(1)           | All personnel know --   | --              |
| (a)(1)(i)        | Their responsibilities under the response plan.   | --              |
| (a)(1)(ii)       | The name and address of, and the procedure for contacting, the operator on a 24-hour basis.   | --              |
| (a)(1)(iii)      | The name of, and procedures for contacting, the qualified individual on a 24-hour basis.  | --              |
| (a)(2)           | Reporting personnel know --   | --              |
| (a)(2)(i)        | The content of the information summary of the response plan.  | --              |
| (a)(2)(ii)       | The toll-free telephone number of the National Response Center.   | --              |
| (a)(2)(iii)      | The notification process.   | --              |
| (a)(3)           | Personnel engaged in response activities know --  | --              |
| (a)(3)(i)        | The characteristics and hazards of the oil discharged.  | --              |
| (a)(3)(ii)       | The conditions that are likely to worsen emergencies, including the consequences of facility malfunctions or failures, and the appropriate corrective actions.  | --              |
| (a)(3)(iii)      | The steps necessary to control any accidental discharge of oil and to minimize the potential for fire, explosion, toxicity, or environmental damage.  | --              |
| <b>§ 194.117</b> | <b>Brief Description</b>  | <b>Location</b> |
| (a)(3)(iv)       | The proper firefighting procedures and use of equipment, fire suits, and breathing apparatus.   | Sec 3.4         |



**DOT/PHMSA 49 CFR Part 194**

|                  |  |                 |
|------------------|--|-----------------|
| (b)              | Each operator shall maintain a training record for each individual that has been trained as required by this section. These records must be maintained in the following manner as long as the individual<br><br>is assigned duties under the response plan according to (b)(1) and (b)(2).   | Sec 7.3         |
| (c)              | Nothing in this section relieves an operator from the responsibility to ensure that all response personnel are trained to meet the OSHA standards for emergency response operations in 29 CFR 1910.120   | Sec 7.1.1       |
| <b>§ 194.121</b> | <b>Brief Description</b>   | <b>Location</b> |
| (a)              | Each operator shall update its response plan to address new or different operating conditions or information. In addition, each operator shall review its response plan in full at least every 5 years from the date of the last submission or the last approval as required by (a)(1) and (a)(2).   | Sec 1.4.4       |
| (b)              | If a new or different operating condition or information would substantially affect the implementation of a response plan, the operator must immediately modify its response plan to address such a change and, within 30 days of making such a change, submit the change to PHMSA. Examples of changes in operating conditions that would cause a significant change to an operator's response plan as defined in (B)(1-8). | Sec 1.4.4       |

## PHMSA 49 CFR Part 195

### DOT/PHMSA 49 CFR PART 195.402 & .403

| § 195.402 | Brief Description  | Location            |
|-----------|--|---------------------|
| (c)       | Maintenance and Normal Operations: The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:  | Sec 2.2<br>Sec 6.1  |
| (c)(4)    | Determining which pipeline facilities are located in areas that would require an immediate response by the operator to prevent hazards to the public if the facilities failed or malfunctioned.  | Sec 15              |
| (c)(5)    | Analyzing pipeline accidents to determine their causes.  | Sec 2.2             |
| (c)(6)    | Minimizing the potential for hazards identified under paragraph (c)(4) of this section and the possibility of recurrence of accidents analyzed under paragraph (c)(5) of this section.   | Sec 2.2             |
| (c)(9)    | In the case of facilities not equipped to fail safe that are identified under paragraph 195.402 (c)(4) or that control receipt and delivery of the hazardous liquid or carbon dioxide, detecting abnormal operating conditions by monitoring pressure, temperature, flow or other appropriate operational data and transmitting this data to an attended location. | Sec 2.2             |
| (c)(12)   | Establish and Maintain Liaison with Public Officials   | Sec 4               |
| (e)       | Emergencies  | --                  |
| (e)(1)    | Receive, Identify, and Classify Notices of Events  | Sec 2.3<br>Sec 3    |
| (e)(2)    | Procedures for Prompt and Effective Response   | Sec 2.3<br>Sec 3    |
| (e)(3)    | Availability of Response Personnel and Resources   | Sec 12<br>Sec 13    |
| (e)(4)    | Emergency Shutdown and Pressure Reduction Procedures   | Sec 2.3.3           |
| (e)(5)    | Control and Minimization of Released Hazardous Liquid  | Sec 3.3<br>Sec 3.5  |
| (e)(6)    | Evacuation, Traffic, and Security Control  | Sec 6.2             |
| (e)(7)    | Notification of Emergency Officials  | Preface<br>Sec 12.2 |
| (e)(8)    | Assessment of HVL Clouds   | --                  |
| (e)(9)    | Post Incident Critique   | Sec. 4.8            |
| § 195.403 | Brief Description  | Location            |
| (a)       | Operator Personnel Training  | Sec 7.1             |

**OSHA 29 CFR Part 1910.120**

| <b>OSHA 29 CFR 1910.120(p)(8)(ii))</b>                       |                               |
|--|-------------------------------|
| <b>Brief Description</b>                                     | <b>Location</b>               |
| Pre-emergency planning and coordination with outside parties | Sec 4                         |
| Personnel roles, lines of authority and communication        | Sec 4<br>Sec 12.1<br>Sec 12.2 |
| Emergency recognition and prevention                         | Sec 2.3.4                     |
| Safe distances and places of refuge                          | Sec 6.1                       |
| Site security and control                                    | Sec 6.2                       |
| Evacuation routes and procedures                             | --                            |
| Decontamination procedures                                   | Sec 6.1                       |
| Emergency medical treatment and first aid                    | Sec 3.6                       |
| Emergency alerting and response procedures                   | Sec 12.1<br>Sec 12.2          |
| Critique of response and follow-up                           | Sec. 4.8                      |
| PPE and emergency equipment                                  | Sec 6.1                       |

**CalOSPR Inland Facility 14 CCR 817.04**

| <b>California Office of Spill Prevention &amp; Response – Inland Facilities</b> |   |                      |
|---|---|----------------------|
| <b>817.04</b>   | <b>Inland Facilities</b>  | <b>Location</b>      |
| <b>(a-f)</b>  | <b>Blanket Plans</b>  | --                   |
| <b>(g)</b>  | <b>Spill Notification Procedures</b>  | Sec 12.1<br>Sec 12.2 |
| (g)(1)  | Near the front of each contingency plan shall be a list of immediate contacts and phone numbers to call in the event of a threat of or actual spill of oil, including but not limited to: | Preface              |
| (g)(1)(A)   | The designated qualified individual who is available on a 24-hour basis;  | --                   |
| (g)(1)(B)   | The rated oil spill response organization listed in the contingency plan, or plan holder employee contacts for all plan holder response resources;  | --                   |
| (g)(1)(C)   | The designated spill management team;   | Sec 12.1.4           |

**California Office of Spill Prevention & Response – Inland Facilities**

|           |   |   |
|-----------|---|---|
| (g)(1)(D) | The California Governor's Office of Emergency Services, State Warning Center;   | Preface<br>Sec 12.2                         |
| (g)(1)(E) | The National Response Center; and   | Preface<br>Sec 12.2                         |
| (g)(1)(F) | The Oiled Wildlife Care Network or other wildlife care and treatment organization listed in the plan, pursuant to subsection (o) of this section.   | Sec 13.3.3                                  |
| (g)(2)(A) | Calls to all contacts listed in (1) shall be initiated immediately but not later than 30 minutes after discovery of a spill or threatened spill of oil. All notifications shall be completed as promptly as possible, but not later than two hours after the first call.  | Preface<br>Sec 12.2                         |
| (g)(2)(B) | If there is oiled wildlife or a threat to wildlife, the plan holder shall immediately notify the Oiled Wildlife Care Network or the wildlife care and treatment organization listed in the contingency plan.  | Sec 13.3.3                                  |
| (g)(3)    | Initial contact with the qualified individual does not relieve the owner or operator from making timely notifications.  | --  |
| (g)(4)    | All phone numbers necessary to complete the immediate notification procedures shall be prominently posted and easily referenced.  | Preface<br>Sec12.1                          |
| (g)(5)    | Each contingency plan shall identify a call-out procedure to acquire the resources necessary to address spills that cannot be addressed by the equipment that the plan holder owns or has under contract. Procedures must allow for initiation of the call-out of additional resources within 24 hours of the incident and must begin as soon as a determination has been made that additional resources are necessary. | Preface<br>Sec 12.1<br>Sec 12.2<br>Sec 13.4 |

### California Office of Spill Prevention & Response – Inland Facilities

|           |  |                     |
|-----------|--|---------------------|
| (g)(6)    | <p>Each plan shall provide a checklist of the information to be reported in the notification procedures, including but not limited to:</p> <ul style="list-style-type: none"> <li>(A) Inland Facility name and location;</li> <li>(B) Date and time of the incident;</li> <li>(C) Cause and location of the spill;</li> <li>(D) An estimate of the volume of oil spilled and the volume at immediate risk of spillage;</li> <li>(E) Type of oil spilled, and any inhalation hazards or explosive vapor hazards, if known;</li> <li>(F) Size and appearance of the slick;</li> <li>(G) Prevailing weather;</li> <li>(H) Actions taken or planned by personnel on scene;</li> <li>(I) Current condition of the inland facility;</li> <li>(J) Injuries and fatalities; and</li> </ul> <p>Any other information that may be relevant or appropriate.</p> | Sec 12.3            |
| (g)(7)    | Reporting of a spill shall not be delayed solely to gather all the information required by this subsection.  | Sec 12.3            |
| (g)(8)    | An updated estimate of the volume of oil spilled and the volume at immediate risk of spilling shall be reported to the California Governor's Office of Emergency Services if the estimated volumes have increased, but not less than every 12 hours within the first 48 hours of response. The state on-scene coordinator, through the unified command, shall have the option of increasing or decreasing this time frame, depending upon the need for additional notice about the spill. Updated spill volume information included in the incident action plan developed through the unified command will meet the requirements of this subsection.   | Sec 12.3            |
| (h)       | <b>Introductory Material</b>   | --                  |
| (h)(1)    | Each contingency plan shall provide the following information:   | --                  |
| (h)(1)(A) | Name and address of the inland facility, and mailing address, if different from the physical address. The name and address of the inland facility shall be referenced in the plan title or on a title page at the front of the plan;   | Preface<br>Sec 11.1 |
| (h)(1)(B) | Name, address, phone number, fax number, and e-mail address of both the owner and operator of the inland facility, and indicate which entity is the intended plan holder responsible for implementing the plan;  | Preface<br>Sec 11.1 |



## California Office of Spill Prevention &amp; Response – Inland Facilities

|           |   |            |
|-----------|---|------------|
| (h)(1)(C) | Name, address, phone number, fax number, and e-mail address of the person to whom correspondence should be sent;  | Sec 12.1.6 |
| (h)(1)(D) | The certificate of financial responsibility number for the inland facility shall be included in the front of the contingency plan. If a certificate has not been issued, then the contingency plan must include a statement whether an application for a certificate has been submitted (including date of submission). The contingency plan will not be approved until a certificate has been issued.  | Preface    |
| (h)(1)(E) | <p>A statement signed, under penalty of perjury, by an executive within the plan holder's management who is authorized to fully implement the contingency plan, and who shall review the plan for accuracy, feasibility and executability. If an executive does not have training, knowledge and experience in the area of oil spill prevention, preparedness, and response, the statement shall also be signed by another individual within the plan holder's management structure who has training, knowledge, and experience appropriate for the risks posed by the plan holder's reasonable worst-case spill volume. The certification statement shall be submitted according to the following format:</p> <p>"I certify, to the best of my knowledge and belief, under penalty of perjury under the laws of the State of California, that the information contained in this oil spill contingency plan is true and correct and that the plan is both feasible and executable."</p> <p>(signature), (title), (date)</p> | Preface    |
| (h)(2)    | Each plan shall identify a qualified individual, and any alternates that may be necessary for the purpose of implementing the contingency plan and include documentation that the qualified individual acknowledges this capacity. If an alternate or alternates are identified in the contingency plan, then the plan shall also describe the process by which responsibility will be transferred from the qualified individual to an alternate. During spill response activities, notification of such a transfer shall be made to the state on-scene coordinator at the time the transfer occurs.  | Sec 12.1.2 |

### California Office of Spill Prevention & Response – Inland Facilities

|        |   |                       |
|--------|---|-----------------------|
| (h)(3) | Each contingency plan shall identify a spill management team and provide documentation that the spill management team acknowledges this capacity.   | Sec 12.1.4            |
| (h)(4) | Each contingency plan shall identify at least one rated oil spill response organization that will provide the requisite response resources in the event of an oil spill. The plan shall include a copy of the contract or other approved means verifying that any rated oil spill response organization listed in the plan will provide the requisite services. However, if the plan holder itself intends to provide any response resources or capabilities required by this subchapter, then the plan holder shall demonstrate to the Administrator the applicable requirements of this section are met by the plan holder. | Sec 13.3,<br>Sec 13.4 |
| (h)(5) | Each contingency plan shall provide the name, address, telephone number, e-mail address and fax number of an agent for service of process designated to receive legal documents on behalf of the plan holder, and include documentation that the agent for services of process acknowledges this capacity. Such agent shall be located in California.   | Sec 12.1.7            |
| (i)    | <b>Spill Protection Measures</b>  | --                    |
| (i)(1) | The contingency plan shall describe measures that reduce or mitigate the potential hazards identified in the risk and hazard analysis described in subsection (k) of this section. Such description may include, but is not limited to the following:<br><br>Schedules, methods and procedures for testing, maintaining and inspecting equipment and other structures; and  | Sec 2                 |
| (i)(2) | Methods and procedures to reduce spills during transfer and storage operations, including overfill prevention and immediate spill containment resources.  | Sec 2                 |
| (j)    | <b>Inland Facility Description and Reasonable Worst Case Spill Volume</b>   | --                    |
| (j)(1) | The contingency plan shall describe the inland facility generally, and describe the inland facility's operations with specific attention to those locations from which an oil spill could occur and impact inland waters of the state. The contingency plan shall also provide the largest reasonable worst-case spill volume of all the facilities covered by the plan, pursuant to (4) below.   | Sec 11.1              |

**California Office of Spill Prevention & Response – Inland Facilities**

|           |  |                      |
|-----------|--|----------------------|
| (j)(2)    | For a transmission pipeline, production facility, or other non-railroad facility, the description shall also include the following information as applicable:  | --                   |
| (j)(2)(A) | A general diagram or map of the facility site;   | Sec 16               |
| (j)(2)(B) | Well locations by field, including the American Petroleum Institute well number for the well with the largest reasonable worst case spill volume;  | --                   |
| (j)(2)(C) | Relevant piping and tank diagrams (e.g., enhanced photographs or line drawings) including the location of pipelines; oil storage capacity of each structure covered under the plan and its age, design, construction and general condition; the range of oil products normally stored in each structure; the presence of containment structures and oil transfer locations;                | Sec 16               |
| (j)(2)(D) | A description of the oil handled or transported, including physical properties, health and safety hazards, pour point, viscosity (API gravity), and type (e.g., Group 5). A safety data sheet can meet some of these requirements. This information shall be maintained separately at the inland facility, and the contingency plan shall identify the stored location of the information; | Sec 11.1<br>Sec 14.5 |
| (j)(2)(E) | Maximum storage or handling capacity and current normal daily throughput of oil handled;   | Sec 11.1             |
| (j)(2)(F) | A description of the normal procedures for transferring oil, and the amount, frequency and duration of the oil transfers;  | --                   |
| (j)(2)(G) | The inland facility's normal hours of operation;   | Sec 11.1             |
| (j)(2)(H) | Vicinity maps showing any vehicular access to the inland facility, nearby residential, commercial or other populous areas and access to private land necessary to respond to a spill; and  | Sec 15.3             |
| (j)(2)(I) | Geographic locations including latitude and longitude of relevant field offices and remote local offices, or any pre-identified incident command post locations.   | --                   |
| (j)(4)    | The reasonable worst case spill volume for an inland facility, calculated in barrels, is as follows:   | --                   |

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| (j)(4)(B) | <p>Transmission Pipeline: Regardless of the following methodology used for determining the reasonable worst case spill volume for a transmission pipeline, the calculations and parameters used shall be submitted as part of the contingency plan. The reasonable worst case spill volume is the largest of the following:</p> <ol style="list-style-type: none"> <li>1. The pipeline's maximum release time in hours (i.e. the time between pipeline rupture and discovery), plus the maximum shutdown response time in hours (based on historic spill data or in the absence of such historic data, the operator's best estimate), multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipeline), plus the largest line drainage volume after shutdown of the line section(s). Line section means a continuous run of pipe that is contained between adjacent pressure pump stations, between a pressure pump station and a terminal or break-out tank, between a pressure pump station and a block valve, or between adjacent block valves; or</li> <li>2. The largest foreseeable discharge for a line section based on the maximum historic spill, if one exists, adjusted for any subsequent corrective or preventive action taken; or</li> </ol> <p>If there are one or more breakout tanks, then the capacity of the single largest tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system.</p> | <p>Sec 14.1<br/>Sec 14.2</p> |
| (j)(5)    | <p>The plan holder shall update the reasonable worst case spill volume every calendar year, and any other time that a change in the reasonable worst case spill volume would constitute a significant change pursuant to subsection (u)(3).</p>  | <p>--</p>                    |
| (j)(6)    | <p>If the contingency plan covers multiple types of facilities, then the plan holder's reasonable worst case spill volume for the plan shall be the largest volume.</p>  | <p>--</p>                    |
| (k)       | <p><b>Risk and Hazard Analysis and Offsite Consequence Analysis</b></p>  | <p>--</p>                    |

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| (k)(1) | Each inland facility owner or operator shall conduct a risk and hazard analysis that identifies the hazards associated with the operation of the inland facility likely to cause an oil spill, including: operator error, equipment failure, and external events. This subsection shall not require railroads subject to the jurisdiction of the federal Surface Transportation Board to disclose the confidential contents of any safety or security plan required by federal law; however railroads must otherwise comply with the provisions of this subsection.   | Sec 15 |
| (k)(2) | For hazards identified with the ability to cause an oil spill into waters of the state, the owner or operator shall conduct an offsite consequence analysis for a reasonable worst case spill. The offsite consequence analysis must include a trajectory identifying the potential direction, rate of flow, and time of travel of the reasonable worst case spill from the facility to waters of the state and downstream, accounting for natural and manmade pathways and barriers. The analysis shall assume reasonably foreseeable adverse weather conditions, pessimistic water and air dispersion (including produced water), and other adverse environmental conditions. For risks to inland waters designated as perennial in the National Hydrography Dataset, as described in subsection (b), the analysis must consider the highest flow or current in the waterway for six hours. | Sec 15 |
| (k)(3) | Based on the analysis, the contingency plan must:   | --     |



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| (k)(3)(A) | <p>Identify the types of resources at risk in (i) through (v) below that may be impacted based on the trajectories, including depicting the resources at risk locations on maps.</p> <ul style="list-style-type: none"> <li>i. Habitat and shoreline types, as identified in Table 1 and in Appendix C of the National Oceanic and Atmospheric Administration Shoreline Assessment Manual (Aug. 2013), or as identified in the American Petroleum Institute's Options for Minimizing Environmental Impacts of Inland Spill Response (Oct. 2016), each incorporated by reference herein.</li> <li>ii. The presence of state or federally-listed rare, fully protected, or threatened or endangered species, or state species of special concern, which includes aquatic and terrestrial animal, fish and plant resources.</li> <li>iii. The presence of aquatic resources including state fish, amphibians, invertebrates, and plants including important spawning, migratory, nursery and foraging areas.</li> <li>iv. The presence of terrestrial animal and plant resources.</li> </ul> <p>The presence of migratory and resident bird and mammal, including relevant migration routes, breeding, stopover, nursery, haul-out, and population concentration areas by season.</p> | Sec 15                    |
| (k)(3)(B) | <p>Identify the following, and include appropriate contacts, as applicable to emergency response:</p> <ul style="list-style-type: none"> <li>i. Commercial and recreational fisheries areas, aquaculture sites, public beaches, parks, marinas, boat ramps, and recreational use areas;</li> <li>ii. Industrial, irrigation, and drinking water intakes, dams, power plants, salt pond intakes, and important underwater structures; and</li> </ul> <p>Known historical and archaeological sites, and areas of cultural or economic significance to Native Americans.</p>  | Sec 15                    |
| (k)(3)(C) | <p>Identify and map the on-water collection locations and strategies for the identified sites and resources at risk, including access locations.</p>   | Sec 14.4.4,<br>Sec 14.4.5 |

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| (k)(4) | The owner or operator may rely on and cite area contingency plans, geographic response plans, and other sources to identify the information required by subsections (k)(3)(A), (B), and (C) above. Having a contract with a rated oil spill response organization does not alleviate the requirement for this analysis.  | Sec 14.4.5            |
| (k)(5) | If the information provided is insufficient regarding trajectories, resources at risk, strategies, sites, or contacts, then upon request of the Administrator, the owner or operator shall provide or include additional relevant information.   | --                    |
| (l)    | <b>Response Resources, Response Times, and Daily Recovery Rates</b>  | --                    |
| (l)(1) | The response resources necessary to address the reasonable worst-case spill are brought to the incident over a period of time. The time frame for arrival and operational deployment of response resources is measured from the time the plan holder learns about or receives notification of the spill, drill, or exercise.   | Sec 13.4,<br>Sec 14.4 |
| (l)(2) | The type and amount of response resources, and the time frames for on-scene deployment are specified in the Response Times, Containment, Recovery & Storage tables in subsections (m) and (n) of this section. The amount of response resources required by these tables are planning standards to address the plan holder's reasonable worst-case spill; additional resources may be required based on the circumstances of an actual spill. The owner or operator may either provide the necessary response resources or rely on a rated oil spill response organization to provide the response resources, as described in subsections (m)(4) and (n)(7) of this section. | Sec 13.3,<br>Sec 13.4 |
| (l)(3) | A safety assessment, as set forth in subsection (r)(2) of this section and as required by California Division of Occupational Safety and Health regulations (e.g. HAZWOPER), shall occur within the response time frames and before on-scene deployment of response resources.   | Sec 6.1               |
| (l)(4) | The actual time necessary to deliver and deploy equipment will be assessed at the time of a spill, drill, or exercise and will take into account the prevailing conditions of weather, and the site safety assessment.   | --                    |

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| (l)(5)    | All response resources shall be appropriate for use on the type of oil identified, and shall be appropriate for use in the environment, habitat, terrain, and waterbody in which the response resources are being considered for use.  | --       |
| (m)       | <b>Terrestrial Response Resources</b>  | --       |
| (m)(1)(A) | If an owner or operator's inland facility poses an oil spill risk to inland waters designated as intermittent or ephemeral in the National Hydrography Dataset, as described in subsection (b), then the contingency plan only needs to demonstrate a contract or other approved means for the response resources and capabilities to contain and store a reasonable worst case spill volume into or threatening the dry portions of the waterway (e.g., bed, bank, channel areas). These resources must be available within the time frames described in the Terrestrial Response Times, Containment, Recovery & Storage table below. Terrestrial services do not require dedicated response resources. | Sec 13.3 |
| (m)(1)(B) | If an owner or operator's inland facility poses an oil spill risk to inland waters designated as perennial in the National Hydrography Dataset, as described in subsection (b), then the contingency plan must demonstrate on-water response capabilities as described in subsection (n) of this section.  | Sec 13.3 |
| (m)(1)(C) | Regardless of the inland water depth, an offsite consequence analysis described in subsection (k) of this section is required.   | Sec 15   |

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| (m)(1)(D)                         | <p>The following table indicates times within which terrestrial response resources shall be deployed and operational within the first 24 hours of a spill, drill or exercise, for the containment, recovery, and temporary storage of the reasonable worst-case spill (RWCS) volume.</p> <p>Table – <u>Terrestrial Response Times, Containment, Recovery &amp; Storage Amounts</u></p> <table><tr><th>Equipment</th><th>Deployment Within 6 hours</th><th>Deployment Within 12 hours</th><th>Deployment Within 24 hours</th></tr><tr><td><b>Containment &amp; Recovery</b></td><td>Sufficient equipment for 50% of RWCS</td><td>Sufficient equipment for 75% of RWCS</td><td>Sufficient equipment for 100% of RWCS</td></tr><tr><td><b>Temporary Storage</b></td><td>Sufficient storage to adequately support removal</td><td>Sufficient storage to adequately support removal</td><td>Sufficient storage to adequately support removal</td></tr></table> | Equipment  | Deployment Within 6 hours                        | Deployment Within 12 hours | Deployment Within 24 hours | <b>Containment &amp; Recovery</b> | Sufficient equipment for 50% of RWCS | Sufficient equipment for 75% of RWCS | Sufficient equipment for 100% of RWCS | <b>Temporary Storage</b> | Sufficient storage to adequately support removal | Sufficient storage to adequately support removal | Sufficient storage to adequately support removal | -- |
|-----------------------------------|---|--|--|----------------------------|----------------------------|-----------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|--------------------------|--|--|--|----|
| Equipment                         | Deployment Within 6 hours   | Deployment Within 12 hours                       | Deployment Within 24 hours                       |                            |                            |                                   |                                      |                                      |                                       |                          |  |  |  |    |
| <b>Containment &amp; Recovery</b> | Sufficient equipment for 50% of RWCS  | Sufficient equipment for 75% of RWCS             | Sufficient equipment for 100% of RWCS            |                            |                            |                                   |                                      |                                      |                                       |                          |  |  |  |    |
| <b>Temporary Storage</b>          | Sufficient storage to adequately support removal  | Sufficient storage to adequately support removal | Sufficient storage to adequately support removal |                            |                            |                                   |                                      |                                      |                                       |                          |  |  |  |    |
| (m)(2)                            | As applicable, the contingency plan must include the following terrestrial response resources and information:  | --   |  |                            |                            |                                   |                                      |                                      |                                       |                          |  |  |  |    |
| (m)(2)(A)                         | <p>The personnel available to respond to a reasonable worst-case spill, including:</p> <ol style="list-style-type: none"><li>1. A list by incident command system position, or a job description;</li><li>2. A match between personnel by job function and the equipment to be used, including the plan for mobilization of such personnel; and</li></ol> <p>A description of how personnel to maintain a response effort of at least 14 calendar days would be rotated, retained, or acquired.</p>   | --   |  |                            |                            |                                   |                                      |                                      |                                       |                          |  |  |  |    |
| (m)(2)(B)                         | (A) The location, description, and condition of containment and recovery equipment, with operators for each piece of equipment, such as backhoes, bulldozers, vacuum trucks, or other types of equipment;   | --   |  |                            |                            |                                   |                                      |                                      |                                       |                          |  |  |  |    |
| (m)(2)(C)                         | The type and capacity of storage bins; and  | --   |  |                            |                            |                                   |                                      |                                      |                                       |                          |  |  |  |    |
| (m)(2)(D)                         | Identification of disposal locations for hazardous materials including oil.   | --   |  |                            |                            |                                   |                                      |                                      |                                       |                          |  |  |  |    |

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| (m)(3)    | The contingency plan must include a narrative description of how containment, recovery, storage, and protection equipment, personnel and other resources will be transported or delivered to a spill site. The description shall account for adverse environmental conditions, adverse weather, water currents or flow (e.g., cubic feet per second), winds, and any other conditions that may be reasonably anticipated which could hinder response efforts.   | --       |
| (m)(4)    | The requirements of this subsection may be provided by a rated oil spill response organization with a terrestrial services rating (as described in section 819.02). To the extent that the requirements are provided by a rated oil spill response organization, then the contingency plan only needs to include evidence of a contract or other approved means with a rated oil spill response organization to satisfy these requirements. However, if an inland facility owner or operator does not contract with a rated oil spill response organization for the requirements and capabilities described in this subsection and intends to meet these requirements with owner or operator owned equipment and personnel, then the owner or operator must provide the information listed in this subsection, and the owner or operator must comply with the oil spill response organization rating requirements pursuant section 819.01 of this subchapter. | Sec 13.3 |
| (n)       | <b>Inland On-Water Response Resources</b>   | --       |
| (n)(1)(A) | If an owner or operator's facility poses an oil spill risk to inland waters designated as perennial in the National Hydrography Dataset, as described in subsection (b), then the contingency plan must demonstrate the response resources to perform containment (e.g. hard boom), recovery of spilled oil and oily waste (e.g. skimming), storage of recovered materials (e.g. tanks, bladders), shoreline protection, and implement any pre-identified response strategies to address the reasonable worst case spill volume into or threatening the waterway. These resources must be available within the time frames described in the Inland On-Water Response Times, Containment, Recovery & Storage table below. The response resources identified to meet the requirements for the first 6 hours must be dedicated response resources.   | Sec 13.3 |



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| (n)(1)(B)                           | If an owner or operator's inland facility poses an oil spill risk to inland waters designated as intermittent or ephemeral in the National Hydrography Dataset, as described in subsection (b), then the contingency plan only needs to demonstrate terrestrial response capabilities as described in subsection (m).  | --  |  |                            |                            |                         |             |             |              |                                     |   |   |  |                                   |                                |                                  |                                   |    |
|-------------------------------------|--|---|--|----------------------------|----------------------------|-------------------------|-------------|-------------|--------------|-------------------------------------|---|---|--|-----------------------------------|--------------------------------|----------------------------------|-----------------------------------|----|
| (n)(1)(C)                           | <p>The following table indicates the equipment and times within which inland water on-water response resources shall be deployed and operational within the first 24 hours of a spill, drill or exercise for the containment, recovery, and temporary storage of the reasonable worst-case spill (RWCS) volume.</p> <p>Table – <u>Inland On-Water Response Times, Containment, Recovery, &amp; Storage Amounts</u></p> <table><tr><th>Equipment</th><th>Deployment Within 6 hours (Dedicated)</th><th>Deployment Within 12 hours</th><th>Deployment Within 24 hours</th></tr><tr><td>Containment (hard boom)</td><td>1,000' boom</td><td>5,000' boom</td><td>10,000' boom</td></tr><tr><td>Recovery Capability (the lesser of)</td><td>820 bbls/day EDRC or 50% of RWCS volume</td><td>4,100 bbls/day EDRC or 75% of RWCS volume</td><td>8,200 bbls/day EDRC or 100% of RWCS volume</td></tr><tr><td>Temporary Storage (the lesser of)</td><td>820 bbls or 50% of RWCS volume</td><td>1,500 bbls or 75% of RWCS volume</td><td>3,000 bbls or 100% of RWCS volume</td></tr></table> | Equipment                                 | Deployment Within 6 hours (Dedicated)      | Deployment Within 12 hours | Deployment Within 24 hours | Containment (hard boom) | 1,000' boom | 5,000' boom | 10,000' boom | Recovery Capability (the lesser of) | 820 bbls/day EDRC or 50% of RWCS volume | 4,100 bbls/day EDRC or 75% of RWCS volume | 8,200 bbls/day EDRC or 100% of RWCS volume | Temporary Storage (the lesser of) | 820 bbls or 50% of RWCS volume | 1,500 bbls or 75% of RWCS volume | 3,000 bbls or 100% of RWCS volume | -- |
| Equipment                           | Deployment Within 6 hours (Dedicated)  | Deployment Within 12 hours                | Deployment Within 24 hours                 |                            |                            |                         |             |             |              |                                     |   |   |  |                                   |                                |                                  |                                   |    |
| Containment (hard boom)             | 1,000' boom  | 5,000' boom                               | 10,000' boom                               |                            |                            |                         |             |             |              |                                     |   |   |  |                                   |                                |                                  |                                   |    |
| Recovery Capability (the lesser of) | 820 bbls/day EDRC or 50% of RWCS volume  | 4,100 bbls/day EDRC or 75% of RWCS volume | 8,200 bbls/day EDRC or 100% of RWCS volume |                            |                            |                         |             |             |              |                                     |   |   |  |                                   |                                |                                  |                                   |    |
| Temporary Storage (the lesser of)   | 820 bbls or 50% of RWCS volume   | 1,500 bbls or 75% of RWCS volume          | 3,000 bbls or 100% of RWCS volume          |                            |                            |                         |             |             |              |                                     |   |   |  |                                   |                                |                                  |                                   |    |
| (n)(2)                              | The contingency plan must include the following information for each response resource listed in the plan:   | --  |  |                            |                            |                         |             |             |              |                                     |   |   |  |                                   |                                |                                  |                                   |    |
| (n)(2)(A)                           | <p>The personnel available to respond to a reasonable worst-case spill, including:</p> <ol style="list-style-type: none"><li>1. A list by incident command system position, or a job description;</li><li>2. A match between personnel by job function and equipment to be used, including the plan for mobilization of such personnel; and</li></ol> <p>A description of how personnel to maintain a response effort of at least 14 calendar days would be rotated, retained, or acquired.</p>  | --  |  |                            |                            |                         |             |             |              |                                     |   |   |  |                                   |                                |                                  |                                   |    |
| (n)(2)(B)                           | The location, inventory and ownership of the equipment to be used to fulfill the on-water response requirements;   | --  |  |                            |                            |                         |             |             |              |                                     |   |   |  |                                   |                                |                                  |                                   |    |
| (n)(2)(C)                           | The type and capacity of transfer and storage equipment matched to the skimming capacity of the recovery systems;  | --  |  |                            |                            |                         |             |             |              |                                     |   |   |  |                                   |                                |                                  |                                   |    |

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| (n)(2)(D) | The manufacturer's rated capacities and the operational characteristics for each major item of on-water recovery equipment;  | --      |
| (n)(2)(E) | <p>The effective daily recovery capacity for each major piece of on-water recovery equipment listed, and the effective daily recovery capacity for the skimming systems as a whole. For planning purposes, the capability of the recovery equipment is the manufacturer's rated capacity as derated by the effective daily recovery capacity;</p> <p>1. A request may be submitted to the Administrator to review the effective daily recovery capacity for a piece of equipment if it can be shown that the equipment has a different capacity than the derating factor allows.</p> <p>The Administrator's decision regarding a change in the effective daily recovery capacity for a piece of equipment will be issued as soon as administratively feasible.</p> | --      |
| (n)(2)(F) | Any vacuum trucks and vessels designated for oil recovery operations, including skimming vessels and vessels designed to tow and deploy boom, and availability of shallow-draft vessels. Each must be designated by registration number or other unique identifier (e.g. VIN, vessel name, etc.);  | --      |
| (n)(2)(G) | Adequate maintenance, inspection, and testing of response equipment that is under the immediate control of the operator; and   | --      |
| (n)(2)(H) | Anticipate the need for equipment to monitor the movement of spilled oil, including aerial surveillance sufficient to direct skimming operations.  | --      |
| (n)(3)    | Temporary Storage and Waste Management   | Sec 5.6 |
| (n)(3)(A) | Each contingency plan shall identify storage for all recovered oil or all oily waste.  | --      |
| (n)(3)(B) | Each contingency plan shall describe how recovered oil and waste will be legally handled and transported, and identify locations able to accept the recovered oil or oily waste for recycling or other means of waste management.  | --      |
| (n)(3)(C) | All skimming systems operating at the incident shall have sufficient storage. Sufficient storage shall be no less than the effective daily recovery capacity for the equipment.  | --      |
| (n)(4)    | Group 5 Oil  | --      |

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| (n)(4)(A) | <p>For inland facilities that transport or handle Group 5 oil (defined under “Persistent Oil” in section 790) the contingency plan shall have evidence of a contract or other approved means with one or more rated oil spill response organizations or otherwise demonstrate the means to recover Group 5 oil up to the reasonable worst case spill volume. Such equipment and resources shall include, but are not limited to, the following methods and equipment for:</p> <ol style="list-style-type: none"> <li>1. Locating the oil suspended in the water column (e.g., sonar, sampling equipment, etc.) or on the bottom of the waterbody;</li> <li>2. Reducing spreading on the bottom (e.g., containment boom, sorbent boom, silt curtains, etc.);</li> <li>3. Recovering oil from the bottom (e.g., dredges, pumps, etc.);</li> <li>4. Assessing the impact of such spills; and</li> </ol> <p>Any other methods or equipment appropriate for responding to a spill involving a Group 5 oil.</p> | --       |
| (n)(5)    | Shoreline Protection  | --       |
| (n)(5)(A) | The contingency plan must address the specific types of shorelines that may be impacted.  | Sec 5    |
| (n)(5)(B) | <p>The contingency plan must identify response resources appropriate for protecting shorelines, including:</p> <ol style="list-style-type: none"> <li>1. Protective booming, shallow-draft vessels, and other shoreline protection equipment.</li> </ol> <p>The location, inventory, and ownership of the equipment to be used to fulfill the shoreline protection requirements.</p>  | Sec 13.3 |
| (n)(5)(C) | The plan holder must be able to implement response strategies appropriate for each shoreline that could be impacted by a spill, as those strategies are identified in the offsite consequence analysis pursuant to subsection (k).  | --       |
| (n)(5)(D) | The plan holder's records for storage, maintenance, inspection, and testing of shoreline protection response resources that are under the immediate control of the operator must be made available to the Administrator upon request.   | --       |

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| (n)(6)    | The contingency plan must include a narrative description of how containment, recovery, storage, and protection equipment, personnel and other response resources will be transported or delivered to a spill site. The description shall account for adverse environmental conditions, adverse weather, water currents or flow (e.g., cubic feet per second), winds, and any other conditions that may be reasonably anticipated which could hinder response efforts.   | --         |
| (n)(7)    | The requirements of this subsection may be provided by a rated oil spill response organization with an on-water services rating (as described in section 819.02). To the extent the requirements are provided by a rated oil spill response organization, the contingency plan only needs to include evidence of a contract or other approved means with a rated oil spill response organization that will satisfy the requirements. However, if an inland facility owner or operator does not contract with a rated oil spill response organization for the requirements and capabilities described in this section and intends to meet these requirements with plan holder owned and controlled equipment and personnel, then the owner or operator must provide the information listed in this subsection, must comply with the oil spill response organization rating requirements pursuant section 819.01 of this subchapter, and the equipment identified in the plan must be rotated each year so all the owner or operator equipment is tested over the three year period. | Sec 13.3   |
| (o)       | <b>Oiled Wildlife Care Requirements</b>  |            |
| (o)(1)    | Each contingency plan shall describe the method for providing rescue and rehabilitation of oiled wildlife by one of the following means:   | Sec 13.3.3 |
| (o)(1)(A) | Indicate use of the California Oiled Wildlife Care Network; or   | Sec 13.3.3 |

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| (o)(1)(B) | Identify an alternate wildlife care and treatment organization and describe procedures that clearly outline how oiled wildlife will be treated and cared for, including recovery, transport, and processing. Standards and written protocols used for wildlife care shall comply with all applicable state and federal laws. The equipment and personnel necessary to implement these procedures and protocols shall be identified and assured by contract for each response planning area covered by the contingency plan. The documents, equipment, personnel, and facilities must be available for review and inspection by the Administrator upon request. | Sec 13.3.3 |
| (p)       | <b>Applied Response Technologies and Oil Spill Cleanup Agents</b>  | Sec 5.5    |
| (p)(1)    | The contingency plan may identify and include oil spill cleanup agents and applied response technologies that a plan holder considers appropriate for the plan holder's offsite consequence analysis. Procuring agents or technologies will not guarantee approval by the Administrator and the federal Region 9 Regional Response Team for use during an incident. Any listed agents or technologies must be approved for use in California by the Administrator pursuant to Government Code section 8670.13.1 and chapter 8 of this subdivision, and approved by applicable federal agencies.  | Sec 5.5    |
| (p)(2)    | The plan shall describe the approval process for the use of oil spill cleanup agents and applied response technologies on oil spills in state or federal waters, and acknowledge the decision to approve the use of such agents and technologies rests exclusively with the Administrator and the Regional Response Team, respectively.  | Sec 5.5    |
| (p)(2)(A) | The decision to use applied response technologies or oil spill cleanup agents on oil spills does not reside with the plan holder. The plan holder must know how to: <ol style="list-style-type: none"> <li>1. Make the proper spill notifications;</li> <li>2. Request of the Administrator and the Regional Response Team for consideration of a particular applied response technology or use of an oil spill cleanup agent; and</li> </ol> Provide operational support for use of applied response technologies or oil spill cleanup agents.  | Sec 5.5    |
| (q)       | <b>Readiness, Movement, and Cascading of Response Resources</b>  | --         |



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| (q)(1)    | <i>All plan holder owned and controlled response resources identified in the contingency plan shall be available, deployable, and operational for an exercise, drill, or spill. Any necessary maintenance for equipment, availability of response personnel, or other eventualities must be considered, and alternative response resources identified when relying upon response resources that would be unavailable for those or other reasons. A significant change in response resources must be reported to the Administrator, as provided in subsection (u) of this section.</i>   | -- |
| (q)(2)    | Major Equipment Removal   | -- |
| (q)(2)(A) | 3. The inland facility plan holder shall notify the Administrator when major equipment identified in the contingency plan is removed from service for a period of 24 hours or more for maintenance, sale, or any other reason. Major equipment is that which, if removed, would affect the minimum oil containment, recovery or storage capability set forth in the Response Times, Containment, Recovery & Storage tables in subsections (m) and (n) of this section. Notification must be made prior to removing equipment for planned or anticipated removal and within 24 hours of removing equipment for unplanned or unanticipated reasons. | -- |
| (q)(2)(B) | The inland facility shall demonstrate that backup equipment is available during the time that the major equipment is out of service. Backup equipment may be provided from the owner's own inventory or may be made available from another source.  | -- |
| (q)(2)(C) | The contingency plan shall remain valid during the time that equipment has been removed from service, unless the Administrator determines the plan is deficient.  | -- |
| (q)(2)(D) | The inland facility shall notify the Administrator when the major equipment is back in service.   | -- |

California Office of Spill Prevention & Response – Inland Facilities

|        |   |       |
|--------|---|-------|
| (q)(3) | Cascading. When response resources identified in the contingency plan are to be moved out of the plan holder's planning area, and that movement may impact the plan holder's containment, recovery, or storage capability within the first six hours of a spill, the plan holder or the plan holder's rated oil spill response organization shall make a request to the Administrator to temporarily reduce the minimum oil recovery capability set forth in the Response Times, Containment, Recovery & Storage tables in subsections (m) and (n) of this section before the response resources can be moved. The Administrator shall only grant such a request after determining that sufficient response resources are available to address a reasonable worst case spill within the relevant area from where the response resources are being considered for removal.   | --    |
| (r)    | <b>Incident Management, and Area or Geographic Response Plans</b>   | --    |
| (r)(1) | Each contingency plan shall describe an incident command system that will be used for spill management. If the plan holder has its own incident command system handbook, guideline, or reference document, this document shall be made available to the Administrator upon request. The contingency plan shall acknowledge that a federal on-scene coordinator and the Administrator will use the National Incident Management System as the template for management of spills, and will use either the U.S. Coast Guard Incident Management Handbook (2014) or the U.S. Environmental Protection Agency Incident Management Handbook (2016) for spill management guidance. The plan holder shall be able to integrate its incident command system with the system used by the federal on-scene coordinator or the state on-scene coordinator. The inland facility's initial emergency responder on-site shall initiate the incident command system until a more senior facility responder arrives, as required by subsection 5192(q)(3)(A), of title 8, of the California Code of Regulations. | Sec 4 |

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|            |  |              |
|------------|--|--------------|
| (r)(2)     | Each contingency plan shall acknowledge the need to complete a site safety and health plan as required pursuant to section 5192, of title 8, of the California Code of Regulations. Applicable site safety and health plan elements may include, but are not limited to site hazards, respiratory protection, personal protective equipment, confined space entry, direct reading instruments and exposure monitoring. | Sec 6.1      |
| (r)(3)     | Each contingency plan shall acknowledge command and staging sites and facilities identified in the applicable area contingency plan or geographic response plan. For areas not covered by such federal plans, the inland facility contingency plan shall identify potential sites for response operations including locations for:   | Sec 1.3.4, 4 |
| (r)(3)(A)  | A central command post sufficient to accommodate the initial incident management; and  | Sec 1.3.4, 4 |
| (r)(3)(B)  | Equipment and personnel staging areas.   | Sec 1.3.4, 4 |
| <b>(s)</b> | <b>Training</b>  | Sec 7.1      |
| (s)(1)     | Each contingency plan shall document that personnel employed by the plan holder regularly receive training applicable to their role in a spill, such as:   | Sec 7.1      |
| (s)(1)(A)  | Incident command system, including command or general staff position-specific training;  | Sec 7.1      |
| (s)(1)(B)  | Oil spill emergency response training as required by state and federal health and safety laws for facility personnel likely to be engaged in oil spill response (e.g., section 5192 of title 8 of the Code of Regulations, "HAZWOPER"); and  | Sec 7.1      |
| (s)(1)(C)  | Use and operation of oil spill response and clean-up equipment.  | Sec 7.1      |
| (s)(2)     | Training records shall be maintained for three years from the date of the training. All such documentation shall promptly be made available to the Administrator upon request.   | Sec 7.3      |
| <b>(t)</b> | <b>Drills and Exercises</b><br>Each contingency plan shall describe a tabletop exercise and equipment deployment drill program for the inland facility that meets the exercise and drill requirements of section 820.02 of this subchapter, to ensure that the plan holder can adequately respond to a spill.  | Sec 7.2      |
| <b>(u)</b> | <b>Plan Changes and Updates</b>  | Sec 1.4      |

### California Office of Spill Prevention & Response – Inland Facilities

|            |  |         |
|------------|--|---------|
| (u)(1)-(7) | The plan holder shall ensure the plan is up-to-date and complete.  | Sec 1.4 |
| (v)        | <b>Enforcement and Compliance</b><br>The owner or operator of an inland facility who knowingly, intentionally or negligently violates any provision of this subdivision or the Act may be subject to criminal, civil, or administrative actions, pursuant to Government Code section 8670.57 through section 8670.69.6, and chapter 7 of this subdivision (commencing with section 873). | N/A     |
| (w)        | <b>Severability</b><br>If any provision of this section or the application thereof to any person or circumstances is held invalid by a Court, that invalidity shall not affect other provisions or applications of the section that can be given effect without the invalid provision or application, and to this end the provisions of this section are severable.                      | N/A     |

### CalOSPR Marine Facility 14 CCR 817.02

### California Office of Spill Prevention & Response – Marine Terminal

| § 817.02 | Brief Description                            | Location                |
|----------|--|-------------------------|
| (a)      | Introductory Material                        | Preface                 |
| (a)(1)   | Facility information                         | Preface<br>Sec 11.1     |
| (a)(2)   | Qualified individual                         | Preface<br>Sec 12.1.1   |
| (a)(3)   | Name, address, etc. of an agent for service  | Sec 12.1.7              |
| (a)(4)   | Identify spill management team               | Sec 12.1.4              |
| (a)(5)   | Copy of spill response organization contract | Sec 13.3,<br>Sec 13.4.1 |
| (b)      | Marine facility description                  | Sec 11.1<br>Sec 11.2    |
| (b)(1)   | Design and operation                         | Sec 11.1<br>Sec 11.3    |
| (b)(2)   | Marine facility site and surrounding area    | Sec 11.3<br>Sec 15.2.1  |
| (c)      | Prevention Measures                          | Sec 2.1                 |
| (c)(1)   | Risk and hazard analysis                     | Sec 14.5                |

**California Office of Spill Prevention & Response – Marine Terminal**

| <b>§ 817.02</b> | <b>Brief Description</b>  | <b>Location</b>       |
|-----------------|---|-----------------------|
| (c)(2)          | Off-site consequence analysis                                   | Sec 15.2              |
| (c)(2)(A)       | Spill trajectory  | Sec 14.4              |
| (c)(2)(B)       | General toxicity effects  | Sec 14.5              |
| (c)(3)          | Resources at risk from oil spills                               | Sec 15.1<br>Sec 15.2  |
| (c)(4)          | Required prevention measures                                    | Sec 2.1               |
| (d)             | Containment booming and on-water recovery                       | Sec 5<br>Sec 14.4     |
| (d)(1)          | Reasonable worst-case spill                                     | Sec 14.1<br>Sec 14.2  |
| (d)(2)          | Persistence and emulsification factors                          | Sec 14.5.2            |
| (d)(3)          | Response capability standards                                   | Sec 14.4.2            |
| (d)(4)          | Movement of response resources                                  | Sec 14.4.2            |
| (d)(5)          | On-water response equipment and services                        | Sec 13.3,<br>Sec 13.4 |
| (e)             | Shoreline protection  | Sec 5<br>Sec 14.4.3   |
| (e)(1)          | Shoreline response planning volume                              | Sec 14.4.2            |
| (e)(2)          | Shoreline protection equipment and services                     | Sec 13.3,<br>Sec 13.4 |
| (e)(3)          | Reserved  | --                    |
| (e)(4)          | Shoreline clean-up  | Sec 5<br>Sec 14.4.3   |
| (f)             | Response procedures   | Sec 3                 |
| (f)(1)          | Response organization (ICS)                                     | Sec 4                 |
| (f)(2)          | Establishment of command/staging sites                          | Sec 4                 |
| (f)(3)          | Key spill response activities flowchart                         | Sec 5                 |
| (f)(4)          | Provision of emergency services                                 | Sec 12.2              |
| (f)(5)          | Equipment/Procedures to minimize spill                          | Sec 2                 |
| (f)(6)          | Lines of communication, communication procedures, and function. | Sec 13.2              |



**California Office of Spill Prevention & Response – Marine Terminal**

| <b>§ 817.02</b> | <b>Brief Description</b>  | <b>Location</b>                 |
|-----------------|---|---------------------------------|
| (f)(7)          | Access/Contamination Control  | Sec 14.4                        |
| (f)(8)          | Completion of Site Safety Plan  | Sec 6.1                         |
| (g)             | Notification Procedures   | Preface<br>Sec 12.1<br>Sec 12.2 |
| (g)(1)          | List of contacts  | Sec 12<br>Sec 13                |
| (g)(2)          | Immediate notification procedures   | Preface<br>Sec 12.1<br>Sec 12.2 |
| (g)(3)          | Call-out procedure  | Preface<br>Sec 12.1<br>Sec 12.2 |
| (g)(4)          | Checklist of information to be reported   | Sec 12.3                        |
| (g)(5)          | Report spill immediately  | Preface<br>Sec 12.2<br>Sec 12.3 |
| (g)(6)          | Report updated spill volumes  | Sec 12.2<br>Sec 12.3            |
| (h)             | Temporary Storage and Waste Management  | Sec 5.6<br>Sec 13.3.4           |
| (h)(1)          | Identify sufficient temporary storage for recovered oil or all oily waste             | Sec 5.6<br>Sec 13.3.4           |
| (h)(2)          | Identify party to maintain responsibility for recovered oil and oily waste            | Sec 13.3.4                      |
| (h)(3)          | Describe site criteria and methods used to select temporary storage sites             | Sec 13.3.4                      |
| (h)(4)          | Identify permits required and who is responsible for issuing those permits            | Sec 5.6<br>Sec 13.3.4           |
| (h)(5)          | Methods to expedite state approval processes for use of temporary waste storage sites | Sec 5.6                         |
| (i)             | Oiled Wildlife Care Requirements  | Sec 13.3.3                      |
| (i)(1)          | Utilize the California Oiled Wildlife Care Network or;                                | Sec 13.3.3                      |
| (i)(2)          | Describe procedures on oiled wildlife care  | Sec 13.3.3                      |
| (j)             | Training  | Sec 7.1                         |

## California Office of Spill Prevention &amp; Response – Marine Terminal

| § 817.02 | Brief Description   | Location |
|----------|---|----------|
| (j)(1)   | Training for use and operation of response and clean-up equipment                                     | Sec 7.1  |
| (j)(2)   | Operational risk reduction training   | Sec 7.1  |
| (j)(3)   | Safety training   | Sec 7.1  |
| (j)(4)   | Training records are maintained for 3 years   | Sec 7.3  |
| (k)      | Drills and Exercises  | Sec 7.3  |
| (k)(1)   | Describe the marine facility's drill and exercise program   | Sec 7.3  |
| (k)(2)   | Training sessions may constitute creditable drills  | Sec 7.3  |
| (k)(3)   | All response resources identified participate in deployment exercises at least once every three years | Sec 7.3  |

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## 11.1 Information Summary

| Pipeline Information Summary                            |  |
|---|--|
| <b>Response Zone Name:</b>                              | Las Flores Pipeline System   |
| <b>Pipelines</b><br>(See Section 11 for greater detail) | Las Flores Pipeline (Las Flores Canyon to Gaviota)<br>CA-324 (Las Flores Canyon to Gaviota)                |
|   | Las Flores Pipeline (Gaviota to Pentland)<br>CA-325A (Gaviota to Sisquoc)<br>CA-325B (Sisquoc to Pentland) |
|   |  |
| <b>Product</b>  | Crude  |
| <b>Counties</b>   | Santa Barbara, San Luis Obispo, Kern   |
| <b>State</b>  | California   |
| <b>Owner</b>  | Pacific Pipeline Company<br>845 Texas Ave., Suite 2920<br>Houston, TX 77002                                |
| <b>Operator</b>   | Sable Offshore Corp.<br>845 Texas Ave., Suite 2920<br>Houston, TX 77002                                    |
| <b>Emergency Phone Number</b>                           | <b>805-567-9543</b>  |
| <b>Hours of Operation</b>                               | 24/7   |
| <b>Regular Daily Throughput</b>                         | 0 bpd. The lines are active but have been nitrogen purged and idled.                                       |
| <b>WCD/RWCS</b>   | 0 bbls while the lines are active, but idled   |
| <b>Qualified Individuals</b>                            | Primary – Jeff Patterson<br>805-961-4080 office<br>805-832-7234 cell                                       |
|   | Alternate – Justin Crowell<br>805-961-4055 office<br>805-714-5707 cell                                     |
|   | Alternate – Brian Smith<br>805-571-0426 office<br>805-701-7575 cell  |

This response zone has pipelines in: Santa Barbara, San Luis Obispo, and Kern Counties.

Currently, all lines have been drained, nitrogen purged and idled although they are listed as active. Therefore, there is no throughput and the worst case discharge amount is 0 bbls. When operations commence, the daily throughput, Resource Determination, and the WCD scenario will be reevaluated and adjusted to accommodate the appropriate values.

The Las Flores Pipeline consists of 10.86 miles of 24" diameter insulated crude oil pipelines from the Las Flores Pump Station and Gaviota Meter Station (CA-234) and 113.56 miles of 30" diameter insulated crude oil pipelines from Gaviota Pump Station (CA-325A), through the Sisquoc Pump Station and ending at the Pentland Meter Station (CA-325B).

The pipeline sections have a wall thickness ranging from 0.281 to 0.750 inches. The entire buried pipeline except for factory bends and some areas that have had maintenance performed are insulated within 1.5 inches of polyurethane foam with a vinyl outer jacket.

See Section 16 for the Pipeline Trunk Line Charts (TLC).

There are no breakout tanks located in the Response Zone.

#### **11.1.1 Secondary Containment**

Containment capacities at each of the four stations are:

- Las Flores Pump Station – 1,865 bbl.
- Gaviota Meter Station – 2,466 bbl.
- Sisquoc Pump Station – 3,633 bbl.
- Pentland Meter Station - N/A

#### **11.1.2 Fire Protection**

Each station electrical system complies with NFPA 70 and API-500-C.

The Las Flores Pipeline Fire Protection Plan will be in full effect at all pump stations. In the event of a discharge/release outside of the pump station boundaries, all on-site personnel will be instructed to use extreme caution relative to ignition sources.

#### **11.1.3 Site Security**

On-site security is provided at each station by 6-foot fences with barbed wire strands installed at the top. Exits are available to provide necessary means of escape in the event of an emergency. Signs are posted on the fence of each station, in a visible location, stating the operator's name and 24-hour emergency phone number.

#### 11.1.4 River Crossing Inspection and Maintenance

In Santa Barbara County, the three major river crossings (Santa Ynez, Sisquoc, and Cuyama) are visually inspected annually to ensure that existing cover over the pipeline is substantially the same as it was when the pipeline crossings were installed in 1986. At five-year intervals, or sooner as determined by certain events, an actual survey is completed at each of the crossings and a profile is prepared to depict current riverbed grade and the as-built location of the pipeline.

At the Gaviota Creek crossing surveys will be conducted no less than every three years.

Sable Offshore Corp. will evaluate any hazards identified by routine monitoring, evaluation team will be staffed with at least one California registered engineer or engineering geologist.

If the monitoring indicates a potential or actual hazard, appropriate actions, including but not limited to, operations curtailment and repairs, will be taken to mitigate the hazard.

In the case of river crossings at the Santa Ynez, Sisquoc, and Cuyama Rivers, a yearly inspection of burial depth shall be performed. At crossing of the Santa Ynez and Sisquoc Rivers, where channel degradation has reduced depth of cover to less than four feet below the 10-0-year scour depth, or other hazardous levels as determined by a professional engineer on staff or under the supervision of the County Flood Control agency, or US Department of Transportation, specifications, relocation, or reburial of the pipeline to adequate depth will be required. At the crossing of the Cuyama River, if the inspections reveal that hazardous conditions exist, mitigations such as reconstruction or relocation of the crossing will be required as determined by a professional engineer on the staff or under the supervision of the County Flood Control Agency.

### 11.2 Pipeline Facilities Within Response Zone

| TLC No. | Line        | Line Diameter (Inches) | Line Length (miles) | Largest Segment (Miles) | Water Crossings                                    |
|---------|-------------|------------------------|---------------------|-------------------------|--|
| CA-324  | LAS - GAV   | 24                     | 10.86               | 2.83                    | Refugio Creek                                      |
| CA-325A | GAV - SISQ  | 30                     | 38.72               | 18.25                   | Gaviota Creek<br>Santa Ynez River<br>Sisquoc River |
| CA-325B | SISQ - PENT | 30                     | 74.84               | 21                      | Pine Canyon Creek<br>Cuyama River                  |

## 11.3 Regulatory Compliance

This Plan is intended to satisfy the requirements of the Oil Pollution Act of 1990 and has been prepared in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and applicable Area Contingency Plans (ACP), EPA Region IX Regional Contingency Plan and the California Office of Oil Spill Prevention and Response (OSPR). Specifically, this Plan is intended to satisfy:

- PHMSA 49 CFR 194 and 195
- California Code of Regulations, Title 14, CCR Sections 815-820.
- Santa Barbara County Final Development Plan (FDP) Conditions P-3, P-4, P-5.
- Santa Barbara County Zoning Ordinance, Section 35.290.
- The Plan's approval by the Santa Barbara County Fire Department and Office of Emergency Management (Fire/OEM) is based on its consistency with the countywide Oil and Gas Industry Emergency Response Plan.
- California Government Code Section 51010-51019.1.

### 11.3.1 Zone Classification

This response zone has been determined to meet the significant and substantial harm classification because at least one line section within the response zone has met at least one of the criteria listed in 194.103(c)(1).

Approximately five miles of the CA-234 pipeline parallels US HWY 101 N immediately adjacent to the California coastline. Due to its proximity to the marine environment this portion of the Las Flores Pipeline System meets the definition of a Marine Facility as defined in 14 CCR 790, as is applicable to the Cal- OSPR Marine Facility Contingency Planning requirements of 14 CCR 817.02. The remaining portions of the pipeline are applicable to the Inland Facility Contingency Plan Requirements of 14 CCR 817.04. The entire Las Flores Pipeline System is applicable to the PHMSA OPA90 planning requirements contained in 49 CFR Part 194

### 11.3.2 Santa Barbara County Final Development Plan

In the event of an incident requiring the implementation of this Plan in Santa Barbara County, its use assures that the Company will be operating in compliance with State and local regulations. This plan has also been prepared to assure consistency with the [Sector Los Angeles – Long Beach Area Contingency Plan](#), the [Region IX Regional Contingency Plan](#), and the [California State Oil Spill Contingency Plan](#).

This plan is developed to meet the In the Emergency Response Plan requirement of Santa Barbara County's FDP Condition P-3. The P-3 Plan identifies the emergency response procedures to be implemented in the event of an emergency that may affect public safety and/or the environment, regardless of whether spilled oil is involved.



The intent of the P-4 plan is to provide a means whereby one or more industry groups shall coordinate amongst themselves and with the government agencies/organizations to respond to a full-scale emergency (as described above). It is in the best interest of all involved parties to cooperate by providing mutual aid/assistance through the sharing of resources/manpower during full-scale emergencies. Through activation of the P-4 Area Oil and Gas Industry Emergency Response Plan, the Company, Sable Offshore Corp., Freeport-McMoRan Oil & Gas, Phillips 66, DCOR and E&B Resources, Santa Maria Refining Company, Pacific Offshore Pipeline Company and. personnel and/or equipment could be utilized, if available, during an emergency.

To satisfy Contingency Plan Requirements specified in the California Code of Regulations and Santa Barbara County FDP Condition P-5, this Plan is submitted to the Office of Oil Spill Prevention and Response (OSPR) and various departments within the County of Santa Barbara.

Employees shall not hesitate to notify County emergency response agencies via 911 or contact information listed in Appendix B.

#### **11.3.3 California OSPR Plan Review and Submission Requirements**

In compliance with Subsection 817.02(f)(7) California Code of Regulations, Sable Offshore Corp. has established post-spill review procedures to evaluate the effectiveness of the plan and the need for plan amendments. Following an incident, the Company will conduct a meeting with key members of its response organization to evaluate the response effort. The Terminal Operations Supervisor will prepare a critique that analyzes the results of the response and will suggest modifications to the plan, if necessary. Upon management approval, results of the review will be forwarded to the Administrator for oil spill response within 90 days following the completion of response and cleanup procedures.

The plan holder shall update the reasonable worst-case spill volume every calendar year, and any other time that a change in the reasonable worst case spill volume would constitute a significant change.

The inland facility plan holder shall notify the Administrator when major equipment identified in the contingency plan is removed from service for a period of 24 hours or more for maintenance, sale, or any other reason. Major equipment is that which, if removed, would affect the minimum oil containment, recovery or storage capability set forth in the Response Times, Containment, Recovery & Storage tables in subsections (m) and (n) of this section. Notification must be made prior to removing equipment for planned or anticipated removal and within 24 hours of removing equipment for unplanned or unanticipated reasons.

Resubmissions. The Administrator may require earlier or more frequent resubmission or updates. The plan holder shall be notified in writing if an earlier resubmission or update is required. The notice shall include an explanation of the reasons for the resubmission or update.

**11.3.4 Cal Prep**

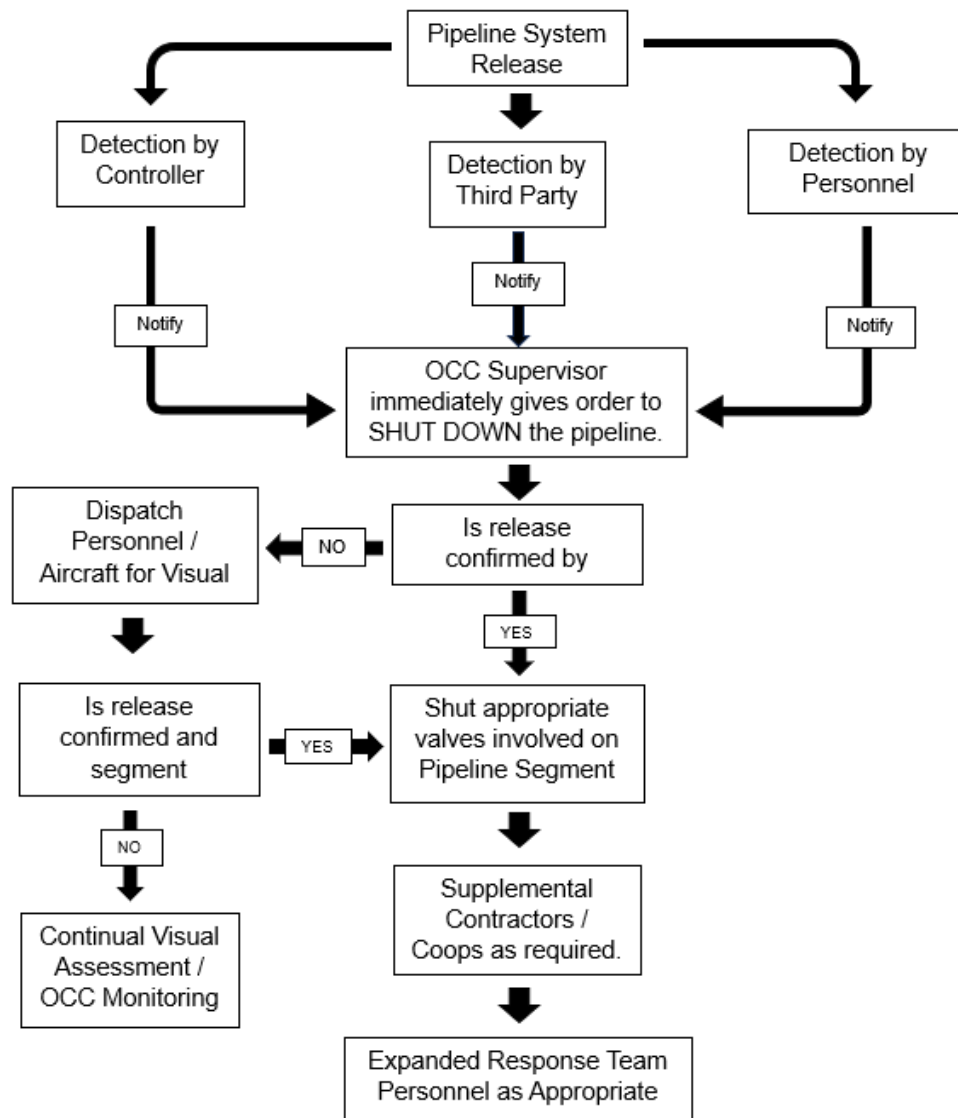
The State of California has State specific oil spill drill requirements that require a 30-day notice for Equipment Deployment Drills and 60-day notice for all other types of drills. This is done by completing a Drill Notification Form and forwarding it to the California Fish and Wildlife Office of Spill Prevention and Response (Cal OSPR). Plan holders are also required to invite CAL OSPR to participate in Drill Design sessions. There are a variety of other California state specific requirements and these, as well as necessary Drill Notification and Drill Credit forms located on the CAL OSPR Drill and Exercise website: <https://www.wildlife.ca.gov/OSPR/Preparedness>.

## 12.1 Internal Notification

### 12.1.1 General Notification Flowchart

The following is a general notification flowchart that is to be used as a guide in the event of a reportable incident. If there is an incident in the Las Flores Pipeline Response Zone a notification will be made to the Operations Control Center.

**Note:** When an abnormal condition is indicated by the hi-low pressure or flow monitors, the OCC will shut the system down in accordance with the OCC Operating Procedures. In some instances, local hi-low alarms will automatically shut a system down when preset limits are exceeded.



### 12.1.2 Qualified Individuals

| Las Flores Pipeline Qualified Individuals |                |              |              |  |
|---|----------------|--------------|--------------|--|
| Add. Code                                 | Name/Position  | Office       | Cellular     | Email  |
| 1   | Jeff Patterson | 805-961-4080 | 805-832-7234 | <a href="mailto:jpatterson@sableoffshore.com">jpatterson@sableoffshore.com</a> |
| 1   | Justin Crowell | 805-961-4055 | 805-714-5707 | <a href="mailto:jcrowell@sableoffshore.com">jcrowell@sableoffshore.com</a>     |
| 1   | Brian Smith    | 805-571-0426 | 805-701-7575 | <a href="mailto:Bsmith@sableoffshore.com">Bsmith@sableoffshore.com</a>         |
| 2   | Craig Landry   | --           | 337-349-2700 | <a href="mailto:clandry@sableoffshore.com">clandry@sableoffshore.com</a>       |
| 2   | Doss Bourgeois | --           | 713-444-4269 | <a href="mailto:dbourgeois@sableoffshore.com">dbourgeois@sableoffshore.com</a> |
| 2   | Lance Yearwood | --           | 832-434-9461 | <a href="mailto:lyearwood@sableoffshore.com">lyearwood@sableoffshore.com</a>   |
| 2   | Rich Tyler     | --           | 281-793-0738 | <a href="mailto:rtyler@sableoffshore.com">rtyler@sableoffshore.com</a>         |
| 1   | Trent Fontenot | 805-567-9501 | 832-444-4114 | <a href="mailto:tfontenot@sableoffshore.com">tfontenot@sableoffshore.com</a>   |

1 - Las Flores Canyon, 12000 Calle Real, Goleta, CA 93117

2- Pacific Pipeline Comp Houston Office

### 12.1.3 Las Flores Pipeline Internal Notifications

| Notification Steps        |                                |                                 |                |                          |            |
|---------------------------|--------------------------------|---------------------------------|----------------|--------------------------|------------|
| Person Reporting Incident | Reports too                    |                                 | Primary Number | Alternate/ 24-Hr. Number | Date/ Time |
|                           | Title                          | Contact                         |                |                          |            |
| First Responder           | Operations Control             | Operations Control Center (OCC) |                |                          |            |
|                           | Facility Operator/ Supervisors | Jeff Patterson                  | 805-961-4080   | 805-832-7234             |            |

#### 12.1.4 Incident Management Team

| Incident Management Team Roster (Current as of the date of submission) |                    |              |              |  |
|--|--------------------|--------------|--------------|--|
| Add. Code  | Name/Position      | Office       | Cellular     | Email  |
| <b>Qualified Individual/Incident Commander</b>                         |                    |              |              |  |
| 1  | Jeff Patterson     | 805-961-4080 | 805-832-7234 | <a href="mailto:jpatterson@sableoffshore.com">jpatterson@sableoffshore.com</a>       |
| 1  | Justin Crowell     | 805-961-4055 | 805-714-5707 | <a href="mailto:jcrowell@sableoffshore.com">jcrowell@sableoffshore.com</a>           |
| 1  | Brian Smith        | 805-571-0426 | 805-701-7575 | <a href="mailto:Bsmith@sableoffshore.com">Bsmith@sableoffshore.com</a>               |
| 4  | Craig Landry       | --           | 337-349-2700 | <a href="mailto:clandry@sableoffshore.com">clandry@sableoffshore.com</a>             |
| 4  | Doss Bourgeois     | --           | 713-444-4269 | <a href="mailto:dbourgeois@sableoffshore.com">dbourgeois@sableoffshore.com</a>       |
| 4  | Rich Tyler         | --           | 281-793-0738 | <a href="mailto:rt Tyler@sableoffshore.com">rt Tyler@sableoffshore.com</a>           |
| 4  | Lance Yearwood     | --           | 832-434-9461 | <a href="mailto:lyearwood@sableoffshore.com">lyearwood@sableoffshore.com</a>         |
| 1  | Trent Fontenot     | 805-567-9501 | 832-444-4114 | <a href="mailto:tfontenot@sableoffshore.com">tfontenot@sableoffshore.com</a>         |
| <b>Safety Officer</b>  |                    |              |              |  |
| 1  | Brian Smith        | 805-571-0426 | 805-701-7575 | <a href="mailto:bsmith@sableoffshore.com">bsmith@sableoffshore.com</a>               |
| 1  | Jamika Velazquez   | 805-961-4189 | 805-335-4655 | <a href="mailto:jjames@sableoffshore.com">jjames@sableoffshore.com</a>               |
| 1  | Shane Cruddas      | 805-571-0408 | 805-264-5865 | <a href="mailto:scruddas@sableoffshore.com">scruddas@sableoffshore.com</a>           |
| 1  | Adam Maingot       | --           | 805-212-0632 | <a href="mailto:amangot@sableoffshore.com">amangot@sableoffshore.com</a>             |
| 3  | Steve Rusch        | --           | 323-697-2060 | <a href="mailto:srusch@sableoffshore.com">srusch@sableoffshore.com</a>               |
| <b>Operations Section Chief</b>  |                    |              |              |  |
| 1  | Justin Crowell     | 805-961-4055 | 805-714-5707 | <a href="mailto:jcrowell@sableoffshore.com">jcrowell@sableoffshore.com</a>           |
| 1  | Brian Smith        | 805-571-0426 | 805-701-7575 | <a href="mailto:bsmith@sableoffshore.com">bsmith@sableoffshore.com</a>               |
| 1  | James Esparza      | 805-571-0402 | 805-680-1744 | <a href="mailto:jesparza@sableoffshore.com">jesparza@sableoffshore.com</a>           |
| 1  | Allan Hazel        | 805-961-4102 | 661-979-8893 | <a href="mailto:allan.j.hazel@sableoffshore.com">allan.j.hazel@sableoffshore.com</a> |
| 5  | The Response Group | 281-880-5000 | 713-906-9866 | <a href="mailto:rbarrett@responsegroupinc.com">rbarrett@responsegroupinc.com</a>     |
| <b>Source Control Branch</b>   |                    |              |              |  |
| 1  | Steve Crawford     | 805-961-4296 | 805-680-3446 | <a href="mailto:scrawford@sableoffshore.com">scrawford@sableoffshore.com</a>         |
| 1  | James Esparza      | 805-571-0402 | 805-680-1744 | <a href="mailto:jesparza@sableoffshore.com">jesparza@sableoffshore.com</a>           |
| 1  | Arun Alagirisamy   | 805-961-4053 | 646-594-0995 | <a href="mailto:aalagirisamy@sableoffshore.com">aalagirisamy@sableoffshore.com</a>   |





#### Incident Management Team Roster (Current as of the date of submission)

| Add. Code                           | Name/Position      | Office       | Cellular     | Email  |
|-------------------------------------|--------------------|--------------|--------------|--|
| 4                                   | Randy Vines        | 805-961-4297 | 713-305-1984 | <a href="mailto:rvines@sableoffshore.com">rvines@sableoffshore.com</a>           |
| <b>Planning Section Chief</b>       |                    |              |              |  |
| 1                                   | Brian Smith        | 805-571-0426 | 805-701-7575 | <a href="mailto:bsmith@sableoffshore.com">bsmith@sableoffshore.com</a>           |
| 1                                   | Steve Crawford     | 805-961-4296 | 805-680-3446 | <a href="mailto:scrawford@sableoffshore.com">scrawford@sableoffshore.com</a>     |
| 1                                   | Patrice Surmeier   | 805-961-4297 | 805-450-6573 | <a href="mailto:psurmeier@sableoffshore.com">psurmeier@sableoffshore.com</a>     |
| 1                                   | Shane Cruddas      | 805-571-0408 | 805-264-5865 | <a href="mailto:scruddas@sableoffshore.com">scruddas@sableoffshore.com</a>       |
| 4                                   | Lance Yearwood     | --           | 832-434-9461 | <a href="mailto:lyearwood@sableoffshore.com">lyearwood@sableoffshore.com</a>     |
| 5                                   | The Response Group | 281-880-5000 | 713-906-9866 | <a href="mailto:rbarrett@responsegroupinc.com">rbarrett@responsegroupinc.com</a> |
| <b>Logistics Section Chief</b>      |                    |              |              |  |
| 2                                   | Humberto Rodriguez | 805-834-1702 | 805-432-9817 | <a href="mailto:hrodriguez@sableoffshore.com">hrodriguez@sableoffshore.com</a>   |
| 2                                   | Daniel Bautista    | 805-834-1714 | 805-208-4717 | <a href="mailto:dbautista@sableoffshore.com">dbautista@sableoffshore.com</a>     |
| 4                                   | Bill Flores        | --           | 832-474-5200 | <a href="mailto:bflores@sableoffshore.com">bflores@sableoffshore.com</a>         |
| 4                                   | Ray Frisby         | --           | 281-615-1806 | <a href="mailto:rfrisby@sableoffshore.com">rfrisby@sableoffshore.com</a>         |
| 5                                   | The Response Group | 281-880-5000 | 713-906-9866 | <a href="mailto:rbarrett@responsegroupinc.com">rbarrett@responsegroupinc.com</a> |
| <b>Finance/Admin. Section Chief</b> |                    |              |              |  |
| 1                                   | Tracy Ballard      | --           | 972-942-4258 | <a href="mailto:tballard@sableoffshore.com">tballard@sableoffshore.com</a>       |
| 1                                   | Shane Cruddas      | 805-571-0408 | 805-264-5865 | <a href="mailto:scruddas@sableoffshore.com">scruddas@sableoffshore.com</a>       |
| 4                                   | Ross Pilcik        | --           | 832-563-3338 | <a href="mailto:rpilcik@sableoffshore.com">rpilcik@sableoffshore.com</a>         |
| 6                                   | The Response Group | 281-880-5000 | 713-906-9866 | <a href="mailto:rbarrett@responsegroupinc.com">rbarrett@responsegroupinc.com</a> |

\*IMT Contact Information is current as of the date of submission.

#### Address Code:

- 1 - Las Flores Canyon, 12000 Calle Real, Goleta, CA 93117
- 2 - Port Hueneme Warehouse, 5901 Arcturus Rd, Oxnard, CA 93033
- 3 - Thousand Oaks, California,
- 4- Sable Houston Office, 700 Milam Street, Ste. 3300 Houston, TX 77002
- 5 - TRG Cypress, 13939 Telge Rd, Cypress, TX 77429

**12.1.5 Plan Point of Contact**

| Las Flores Pipeline Plan Point of Contact |                |   |                              |  |
|---|----------------|---|------------------------------|--|
| Position                                  | Name           | Address   | Phone                        | Email  |
| SYU Sr.<br>Superintendent                 | Jeff Patterson | Las Flores<br>Canyon 12000<br>Calle Real,<br>Goleta Ca<br>93117 | 805-961-4080<br>805-832-7234 | <a href="mailto:jeff.s.patterson@sableoffshore.com">jeff.s.patterson@sableoffshore.com</a> |

**12.1.6 Agent for Service Process**

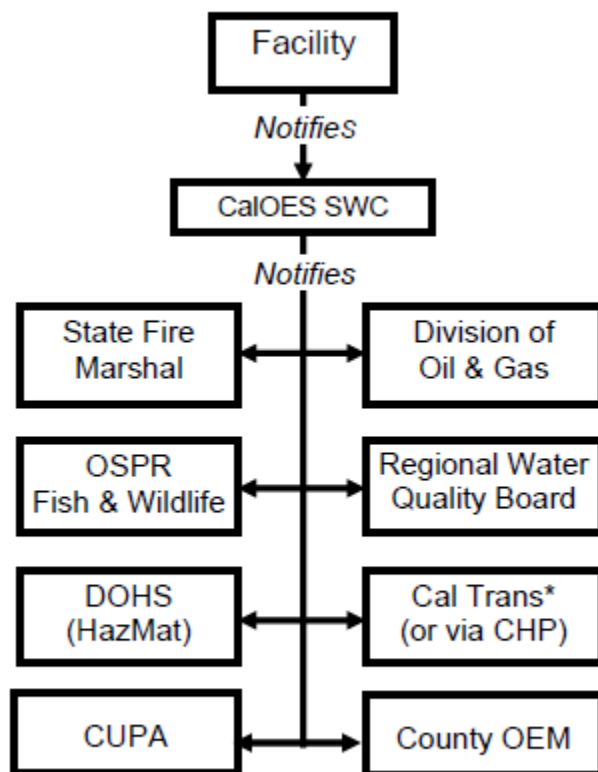
The name and contact information for the Company representative that is designated to receive service of process is listed below, under the regulations of the California Department of Fish and Game, Office of Oil Spill Prevention and Response (15 CCR 817.02(a)(3)). All correspondence regarding this oil Spill Contingency Plan should also be addressed to the representative listed below.

CT Corporation System  
330 North Brand Blvd.  
Glendale, CA 91203  
844-878-1800

## 12.2 External Notification

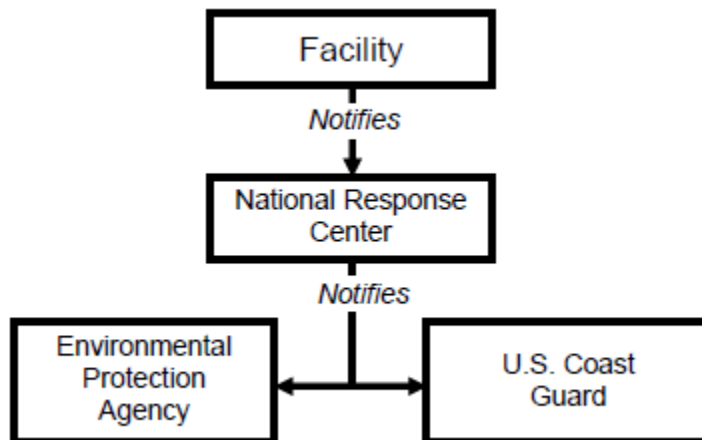
### 12.2.1 General Notification Flowcharts

#### State Notifications



*\* If incident impacts Hwy 101, CHP can be requested when calling 9-1-1.*

#### Federal Notifications



#### 12.2.2 Notification Matrix

Per [14 CCR 817.02\(g\)\(2\)](#), notification to the California Office of Emergency Services and the National Response Center must be made no longer than **30 minutes** after discovery of a discharge or threatened discharge.

| Notification Requirements   |  |
|---|--|
| REPORTABLE DISCHARGE/RELEASE  | REPORTS TO   |
| <p>Discharge of <b>any quantity</b> of oil that produces a sheen or hazardous substance impacting</p> <ul style="list-style-type: none"> <li>• Water ways (any)</li> <li>• Wetlands (any)</li> <li>• Storm Drains (all)</li> <li>• Riverbed (all, including dry)</li> <li>• Shoreline (any)</li> <li>• Surface Water (waters of the State)</li> <li>• Ground Water (waters of the State)</li> <li>• Dry waterways &amp; rivers (waters of the State)</li> <li>• Drinking water</li> </ul> <p>Any discharge or threatened discharge <u>that may threaten</u> or impact water quality.</p> <p>*Note: If it can get into a storm sewer it can threaten or impact water quality.</p> <p>Any pollution of water or adjoining shorelines.</p> | <ul style="list-style-type: none"> <li>• Local 911</li> <li>• <b>National Response Center</b> <b>FED-1*</b> within 30 minutes</li> <li>• <b>Office of Emergency Services (OES)</b> <b>CA-1*</b> within 30 minutes</li> </ul> <p><b>ADDITIONAL NOTIFICATIONS</b></p> <ul style="list-style-type: none"> <li>• California Emergency Management Agency <b>CA-2</b></li> <li>• CUPA/ Local Enforcement Agency <b>Local-1</b></li> <li>• RWQCB Regional Water Quality Board <b>CA-3</b></li> <li>• EPA Region IX Spill Hotline <b>FED-2</b></li> <li>• PHMSA <b>FED-3</b></li> <li>• Chemical Safety and Hazard Investigation Board <b>FED-4</b></li> <li>• California Highway Patrol (if not notified though 911 <b>CA-7</b>)</li> </ul> |
| <p>Discharges of <b>any quantity</b> of oil, product, or hazardous substance that occur on or may impact</p> <ul style="list-style-type: none"> <li>• Marine waters</li> <li>• Navigable Waters (Waters of the State)</li> </ul>  | <p><b>Notify Agencies listed above and:</b></p> <ul style="list-style-type: none"> <li>• USCG - Coast Guard <b>FED-5</b></li> <li>• OSPR - Office of Spill Prevention &amp; Response <b>CA-4</b></li> </ul>  |
| <p>Any discharge from a <b>marine facility</b>.</p> <p>*Note - Even if waterway is dry</p>  | <p><b>Notify Agencies listed above and:</b></p> <ul style="list-style-type: none"> <li>• California State Lands Commission, Marine Facilities Division <b>CA-6</b></li> <li>• California Marine Exchange* <b>CA-6</b></li> </ul>   |
| <p>Other Notifications</p> <p>*Note – See SB County Emergency Notification Matrix on Page B-11 and B-12 for more information regarding additional notifications in Santa Barbara County.</p>  | <p><b>Additional Local Notifications</b></p> <ul style="list-style-type: none"> <li>• County OEM <b>Local-2</b></li> <li>• County Fire and/or EOC <b>Local-3</b></li> <li>• LEPC and/or County Planning <b>Local-4 /5</b></li> <li>• Other County Notifications</li> </ul>   |

### Notification Requirements

Any pipeline rupture/release or pipeline facility release resulting in:

- Caused the death or personal injury requiring hospitalization of any person.
- An explosion or fire not intentionally set by the operator.
- Estimated property damage, including the cost of response, cleanup recovery, and the value of lost product over \$50,000.
- Discharge of any quantity of oil or petroleum products onto waters, wetland or adjoining shorelines including intermittent waterway that causes a sheen.
- In the judgment of the operator is a significant event, even though it did not meet the other criteria.
- Discharge of any crude oil or petroleum products into or on the waters of the state.

(See WATER/ WETLANDS/ STORM DRAIN)

*State Notification Spills of 5 gallons or more of any hazardous liquid, except that spills of less than 5 barrels need not be telephonically reported if they occur in a rural area, on in-plant piping, or on in-plant piping located within a refined products bulk loading facility.*

Safety-regulated liquid pipeline facility release resulting in:

- An explosion or fire not intentionally set by the operator.
- Release of 5 or more gallons of hazardous liquid \*.
- Death of any person.
- Personal injury necessitating hospitalization.
- Estimated property damage, including the cost of response, cleanup, recovery and the value of lost product over \$50,000.

*\* There is an exclusion for releases less than 5 barrels resulting from pipeline maintenance activities. See 195.50 (b).*

*Any discharge of petroleum products posing a significant present or potential hazard to Human Health, safety, property, or the environment.*

### IMMEDIATE NOTIFICATIONS / WITHOUT DELAY

- Local 911
- **National Response Center** **FED-1**\* within 30 minutes
- **Office of Emergency Services (OES)** **CA-1**\* within 30 minutes
- California Emergency Management Agency **CA2**
- CSFM - California State Fire Marshal **CA-9**

### ADDITIONAL NOTIFICATIONS / AS SOON AS POSSIBLE

- CUPA / Local Enforcement Agency **Local-1**

Note\* If a spill can impact any water use the reporting section for Water/ Wetlands/ Storm Drains.

Written DOT 7000-1 Report within 30 days

### Additional Local Notifications

- County OEM **Local-2**
- County Fire and/or EOC **Local-3**
- LEPC and/or County Planning **Local-4 /5**
- Other County Notifications



#### Notification Requirements

| FIRE OR EXPLOSION  | REPORT TO  |
|--|--|
| <ul style="list-style-type: none"> <li>Any smoke investigation.</li> <li>Any fire or fire reported out,</li> <li>Any bomb or extortion threat.</li> <li>Any explosion.</li> <li>Fire eye alarms.</li> <li>Earthquake or Flooding Damage.</li> </ul>  | <ul style="list-style-type: none"> <li>Local 911</li> <li>CUPA / Local Enforcement Agency <b>Local-1</b></li> <li>County OEM <b>Local-2</b></li> <li>County Fire and/or EOC <b>Local-3</b></li> <li>LEPC and/or County Planning <b>Local-4 /5</b></li> <li><b>Other County Notifications</b></li> </ul>  |
| GAS RELEASE (TOXIC OR NON-TOXIC)   | REPORT TO:   |
| <ul style="list-style-type: none"> <li>2 combustible gas alarms.</li> <li>A verified reading of = 50% LEL</li> <li>1 Toxic gas release at &gt;10% ppm.</li> <li>ESD</li> <li>H2S in sales gas or offsite potential</li> </ul>  | <ul style="list-style-type: none"> <li>Local 911</li> <li><b>National Response Center <b>FED-1</b>* within 30 minutes</b></li> <li><b>Office of Emergency Services (OES) <b>CA-1</b>* within 30 minutes</b></li> <li>EPA Region IX Spill Hotline <b>FED-2</b></li> <li>USCG - Coast Guard <b>FED-5</b></li> <li>CUPA/ Local Enforcement Agency <b>Local-1</b></li> <li>County OEM <b>Local-2</b></li> <li>County Fire and/or EOC <b>Local-3</b></li> <li>LEPC and/or County Planning <b>Local-4 /5</b></li> <li><b>Other County Notifications</b></li> </ul> |
| MEDICAL EMERGENCIES  | REPORT TO  |
| <p>Report all instances of accidents resulting in</p> <ul style="list-style-type: none"> <li>Fatality.</li> <li>1 or more employees which requires hospitalization.</li> <li>3 or more employees.</li> </ul> <p>On the job non - first aid injuries that result in</p> <ul style="list-style-type: none"> <li>Lost time.</li> <li>Fatality.</li> </ul> | <p><b>NOTIFICATIONS / AS SOON AS POSSIBLE</b></p> <ul style="list-style-type: none"> <li>OSHA within 8 hrs. <b>FED-4</b></li> <li>CAL OSHA CA-7</li> <li>CUPA / Local Enforcement Agency <b>Local-1</b></li> <li>County OEM <b>Local-2</b></li> <li>County Fire and/or EOC <b>Local-3</b></li> </ul>   |

**Note:** An updated estimate of the volume of oil spilled and the volume at immediate risk of spilling shall be reported to the California Governor's Office of Emergency Services if the estimated volumes have increased, but not less than every 12 hours within the first 48 hours of response. The state on-scene coordinator, through the unified command, shall have the option of increasing or decreasing this time frame, depending upon the need for additional notice about the spill. Updated spill volume information included in the incident action plan developed through the unified command will meet the requirement.

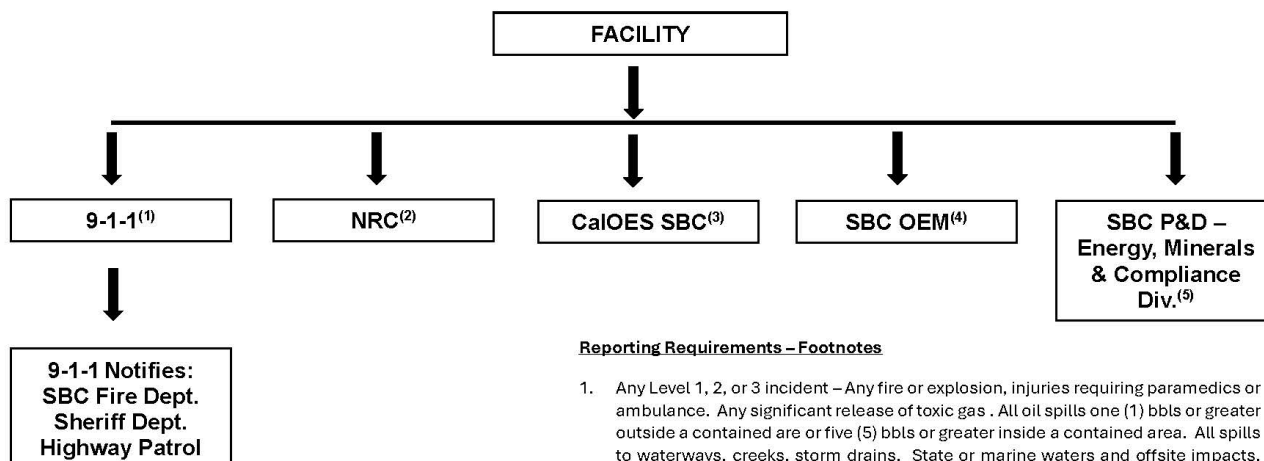
For Santa Barbara County, if the incident meets CAER levels 1-3 the event is considered an Emergency and 911 must be called immediately. When in doubt, report.

### Santa Barbara County Emergency Notification Guidance Matrix

| Level<br>Emergency  | Criteria   | Incident<br>Commander  | Typical Fire<br>Dept.<br>Response  | Notification  |
|---|--|--|--|---|
| <b>LEVEL 1</b><br>Initial Response<br>Minor On-Site<br>Incident                                 | <ol style="list-style-type: none"> <li>Oil spill or produced water spill &gt; 1 bbl outside secondary containment designated for that vessel, system or pipeline, or ≥ 5 bbl inside secondary containment designated for that vessel, system or pipeline, unless it impacts or potentially impacts state or marine waters, in which case go to Level III.</li> <li>Two combustible gas or fire eye alarms</li> <li>Verified high level combustible gas (≥ 50% LEL) alarm</li> <li>Single hand held detector with a LEL reading = 50%</li> <li>Smoke Investigation</li> <li>Fire reported out</li> <li>Hazardous material release outside secondary containment designed for that vessel, system or pipeline.</li> <li>Bomb or extortion threat.</li> </ol> | Highest ranking on-duty Operations person until relieved by Fire Dept.   | One Engine<br>Code 2   | 9-1-1<br>See Facility's<br>Notification<br>Section  |
| <b>LEVEL 2</b><br>Sustained<br>Response<br>Major On-Site<br>Incident                            | <ol style="list-style-type: none"> <li>Oil spill or produced water spill ≥ 5 bbl unless it impacts or potentially impacts state or marine waters, in which case go to Level III.</li> <li>Any toxic gas release &gt; 10 ppm by fixed or handheld monitor.</li> <li>More than 2 combustible gas or fire eye alarms</li> <li>Fire</li> <li>Hazardous materials release requiring hazardous materials emergency response from emergency rescue personnel or contractors.</li> <li>Sour gas in sales line</li> <li>Earthquake or Flooding damage</li> <li>Activation of Emergency Shut Down for plant and / or pipeline.</li> </ol>  | Highest ranking on-duty Operations person until relieved by Fire Dept.   | 1 <sup>st</sup> alarm<br>3 Engines,<br>Chief Officer<br>Code 3   | 9-1-1<br>See Facility's<br>Notification<br>Section<br>Off duty<br>personnel<br>Community<br>Notification<br>Agency<br>Notification as<br>required |
| <b>LEVEL 3</b><br>Major Incident<br>with Public<br>Exposure<br>Potential (off-<br>site impacts) | <ol style="list-style-type: none"> <li>Oil spill or produced water spill impacting or potentially impacting state or marine waters, or threatened release of oil or produced water impacting or potentially impacting state or marine waters.</li> <li>Fire with potential for spreading</li> <li>Explosion</li> <li>Hazardous materials release or gas leak with off-site potential</li> <li>Civil disturbance</li> <li>State of War</li> <li>Highway 101 closure or impact on other significant access routes or roads.</li> </ol>   | Highest ranking on-duty Operations person until relieved by Fire Dept. and potentially: <ul style="list-style-type: none"> <li>Responsible Party</li> <li>Sheriff's Dept.</li> <li>CHP</li> <li>Federal On Scene</li> <li>State On Scene</li> <li>Local On Scene Coordinators</li> </ul> | 2 <sup>nd</sup> alarm or greater,<br>additional<br>engines and / or<br>specialized<br>equipment /<br>resources 2<br>Chief Officers | 9-1-1<br>Off duty<br>personnel<br>Community<br>Notification<br>Agency<br>Notification as<br>required<br>See Facility's<br>Notification<br>Section |

A call to 911 will summon emergency help for most incidents. Subsequent calls are to be made to other Santa Barbara County agencies as shown below.

### Santa Barbara County Agency Notifications



#### Reporting Requirements – Footnotes

- Any Level 1, 2, or 3 incident – Any fire or explosion, injuries requiring paramedics or ambulance. Any significant release of toxic gas. All oil spills one (1) bbls or greater outside a contained area or five (5) bbls or greater inside a contained area. All spills to waterways, creeks, storm drains. State or marine waters and offsite impacts. Any HAZMAT release that poses a threat.
- Any Level 1, 2, or 3 incident – 800-424-8802
- Any Level 1, 2, or 3 incident – Any significant or threatened gas, oil spill, or HAZMAT release. Any substantial threat to storm drains, creek, ocean or other waterway. When notifying the CalOES SWC, request the SWC notify NRC if incident impacts waterways, etc. If this request is not made, Facility staff need to notify NRC directly, if not already completed.
- Any Level 1, 2, or 3 incident – OEM Duty Officer 805-686-5526 and SBC Fire Captain Tim Gailey 805-319-0189 or 805-264-1855 (cell). Any fire or explosion. Two combustible gas or fire eye alarms, reading 50% or greater LEL, ESD. H<sub>2</sub>S in sales gas or off-site potential. Any toxic gas release greater than 10 ppm. All oil spills one (1) bbls or greater outside a contained area or five (5) bbls or greater inside a containment area or any spills to waterways or off-site impacts. Medical emergencies.
- Notify John Zorovich, Energy, Mineral & Compliance Division at 805-568-2519 (office) or 805-215-9676 (cell) within one hour of event or as soon as possible after 1<sup>st</sup> tier notifications have been completed. Leave a message including name, phone number, time, and any other pertinent information in the event of reporting a spill or release.

**12.2.3 Immediate Notifications**

Per [14 CCR 817.02\(g\)\(2\)](#), notification to the California Office of Emergency Services, the National Response Center, and Oil Spill Removal Organizations must be made no longer than **30 minutes** after discovery of a discharge or threatened discharge.

**12.2.3.1 Santa Barbara County**

| Code     | Agency  | Phone                        | Name Of Person Taking Report | Date/Time | Case # (If provided) | Name Of Person Making Report |
|----------|---|------------------------------|------------------------------|-----------|----------------------|------------------------------|
| Local-1  | CUPA – Santa Barbara County Environmental Health Services (24-hr) | 911<br>805-681-4927          |                              |           |                      |                              |
| Local -2 | OEM Duty Officer  | 805-696-1194                 |                              |           |                      |                              |
| Local -3 | SBC Fire Captain  | 805-319-0189<br>805-264-1855 |                              |           |                      |                              |
| Local -4 | SBC Planning Department. Energy                                   | 805-886-7165                 |                              |           |                      |                              |
| Local -5 | LEPC Region 1   | 310-781-7000<br>562-795-2958 |                              |           |                      |                              |
| Local 5  | LEPC Region 5   | 916-396-9292                 |                              |           |                      |                              |
| Local-6  | Santa Maria Valley Water Conservation District / Twitchell Dam    | 805-925-5212                 |                              |           |                      |                              |

**12.2.3.2 San Luis Obispo County**

| Code     | Agency  | Phone               | Name Of Person Taking Report | Date/Time | Case # (If provided) | Name Of Person Making Report |
|----------|---|---------------------|------------------------------|-----------|----------------------|------------------------------|
| Local-1  | CUPA – San Luis Obispo County Environmental Health Services (24-Hr) | 911<br>805-781-5554 |                              |           |                      |                              |
| Local -2 | SLO OEM   | 805-781-5678        |                              |           |                      |                              |
| Local -3 | SLO Fire  | 805-503-9350        |                              |           |                      |                              |





| Code     | Agency        | Phone                        | Name Of Person Taking Report | Date/Time | Case # (If provided) | Name Of Person Making Report |
|----------|---------------|------------------------------|------------------------------|-----------|----------------------|------------------------------|
| Local -4 | SLO Planning  | 805-686-8170                 |                              |           |                      |                              |
| Local -5 | LEPC Region 1 | 310-781-7000<br>562-795-2958 |                              |           |                      |                              |
| Local -5 | LEPC Region 5 | 916-396-9292                 |                              |           |                      |                              |

### 12.2.3.3 Kern County

| Code     | Agency  | Phone                        | Name Of Person Taking Report | Date/Time | Case # (If provided) | Name Of Person Making Report |
|----------|---|------------------------------|------------------------------|-----------|----------------------|------------------------------|
| Local-1  | CUPA – Kern County Public Health Services (24-hr) | 911<br>661-321-3000          |                              |           |                      |                              |
| Local -2 | Kern County OEM                                   | 661-324-6551                 |                              |           |                      |                              |
| Local -3 | Kern County EOC                                   | 661-873-2602                 |                              |           |                      |                              |
| Local -4 | LEPC Region 1                                     | 310-781-7000<br>562-795-2958 |                              |           |                      |                              |
| Local -4 | LEPC Region 5                                     | 916-396-9292                 |                              |           |                      |                              |

### 12.2.3.4 California State

| Code        | Agency   | Phone                        | Name Of Person Taking Report | Date/Time | Case # (If provided) | Name Of Person Making Report |
|-------------|--|------------------------------|------------------------------|-----------|----------------------|------------------------------|
| <b>CA-1</b> | <b>Office of Emergency Services State Warning Center</b> | 800-852-7550<br>916-845-8911 |                              |           |                      |                              |
| CA-2        | State Emergency Management Agency                        | 800-852-7550<br>916-845-8911 |                              |           |                      |                              |
| CA-3        | Central Valley Regional WQCB                             | 559-445-5116                 |                              |           |                      |                              |
|             | Central Coast Regional WQCB                              | 916-464-3291                 |                              |           |                      |                              |





| Code  | Agency   | Phone                        | Name Of Person Taking Report | Date/Time | Case # (If provided) | Name Of Person Making Report |
|-------|--|------------------------------|------------------------------|-----------|----------------------|------------------------------|
| CA-4  | OSPR - Office of Spill Prevention & Response       | 800-852-7550                 |                              |           |                      |                              |
| CA-5  | State Lands Commission, Marine Facilities Division | 562-499-6312<br>510-741-4984 |                              |           |                      |                              |
| CA-6  | Marine Exchange                                    | 310-519-3134                 |                              |           |                      |                              |
| CA-7  | Cal OSHA   | 800-963-9424<br>408-452-7288 |                              |           |                      |                              |
| CA-8  | Highway Patrol                                     | 805-683-2724                 |                              |           |                      |                              |
| CA-9  | State Fire Marshall                                | 562-497-9100<br>916-445-8550 |                              |           |                      |                              |
| CA-10 | Oiled Wildlife Care Network (OWCN)                 | 877-823-6926                 |                              |           |                      |                              |

### 12.2.3.5 Federal

| Code           | Agency  | Phone                        | Name Of Person Taking Report | Date/Time | Case # (If provided) | Name Of Person Making Report |
|----------------|---|------------------------------|------------------------------|-----------|----------------------|------------------------------|
| <b>Federal</b> |   |                              |                              |           |                      |                              |
| <b>FED-1</b>   | <b>National Response Center</b>                 | 800-424-8802                 |                              |           |                      |                              |
| FED-2          | EPA Region IX                                   | 800-300-2193                 |                              |           |                      |                              |
| FED-3          | Pipeline and Hazardous Materials Administration | 202-366-4595                 |                              |           |                      |                              |
| FED-4          | Chemical Safety and Hazard Investigations Board | 202-261-7600                 |                              |           |                      |                              |
| FED-5          | U.S. Coast Guard Sector Los Angeles             | 800-221-8724<br>310-521-3805 |                              |           |                      |                              |
| FED-4          | OSHA  | 916-396-9292                 |                              |           |                      |                              |

**12.2.4 Local Emergency Notification**

| Local Emergency Notifications |  |  |  |  |   |
|-------------------------------|--|--|--|--|---|
| Facility                      | Local Police   | Local Fire Department                    | Nearest Medical Facility   | Local Emergency Planning Commission      | County  |
| Las Flores Pump Station       | Santa Barbara County Sheriff<br>Buellton<br>911<br>805-686-8150    | County Station 12<br>911<br>805-681-5512 | <a href="#">Goleta Valley Cottage Hospital</a><br>351 S Patterson Ave<br>Santa Barbara, CA 93111<br>805-967-3411<br>Trauma Level I | Region 1<br>310-781-7000<br>562-795-2958 | Santa Barbara Environmental Health Hazardous Materials Division<br>850-681-5526 |
| Gavoita Meter Station         |  | Station 38<br>911<br>805-681-5518        | <a href="#">Lompoc Valley Medical Center</a><br>1515 E Ocean Ave<br>Lompoc, Ca 93436<br>805-737-3300<br>Trauma Level III           |  |   |
| Sisquoc Pump Station          | Santa Barbara County Sheriff<br>Santa Maria<br>911<br>805-934-6150 | County Station 23<br>911<br>805-934-6294 | <a href="#">Marian Reginal Medical Center</a><br>1400 E Church St<br>Santa Maria, Ca 93454<br>805-739-3000<br>Trauma Level II      |  |   |
| Pentland Meter Station        | Kern County Sheriff<br>Bakersfield<br>911<br>661-861-3110          | Maricopa Fire<br>911<br>661-769-8239     | <a href="#">Kern Medical</a><br>1700 Mount Vernon Ave<br>Bakersfield, CA 93306<br>661-326-2000<br>Trauma Level II                  | Region V<br>916-396-9292                 | Kern County OEM<br>661-324-6551   |

**12.2.5 Other Immediate Notifications**

In the event any of the following entities are affected or will be potentially affected, the following notifications must also be made:

| Other Immediate Notifications  |            |   |
|--|------------|---|
| Entity   | Location   | Phone   |
| Gaviota State Park   | --         | 951-443-2964 (SURCOM)<br>805-968-2943 vm or via radio |
| Hollister Ranch Owners Association<br>Gate House (If near Gaviota Creek) | (MP 10-14) | 805-567-5020  |
| City of Buellton   | (MP 22-26) | 805-688-5177<br>805-686-0137 (after hours)<br>Union   |

Landowner and/or on-site resident notifications shall be made as necessary and appropriate by Company personnel.

## 12.3 Notification Forms

### 12.3.1 Spill / Release / Incident Report Form

**\*\*\* INITIAL NOTIFICATION TO THE NRC and OES MUST NOT BE DELAYED  
PENDING COLLECTION OF ALL INFORMATION. \*\*\***

Initial Report \_\_\_\_\_ Supplemental Report \_\_\_\_\_ Final Report \_\_\_\_\_ Date: \_\_\_\_\_

Date **and** Time Spill / Release Discovered: \_\_\_\_\_

Spill / Release Discovered by: \_\_\_\_\_

Date **and** Time Spill / Release Reported to SHE: \_\_\_\_\_

Spill / Release Reported to SHE by: \_\_\_\_\_

Pipeline, Station or Terminal: \_\_\_\_\_

Spill / Release / Incident Location: \_\_\_\_\_

City / Parish or County / State: \_\_\_\_\_

Nearest Town / City : \_\_\_\_\_

Driving Directions: \_\_\_\_\_

Product Spilled / Released: \_\_\_\_\_

Volume Spilled / Released: \_\_\_\_\_

Line Size / Description: \_\_\_\_\_

Volume Recovered: \_\_\_\_\_

Interstate: ☐ Intrastate: ☐ Regulated: \_\_\_\_\_

Cause of Spill / Release: \_\_\_\_\_

\_\_\_\_\_

Fire: Yes ☐ No ☐ Explosion: Yes ☐ No ☐ Evacuations: Yes ☐ No ☐

Environmental Impact: Air ☐ Water ☐ Soil ☐ Number of Injuries: \_\_\_\_ Number of Deaths: \_\_\_\_

Area Manager: \_\_\_\_\_

Area Supervisor: \_\_\_\_\_

Field Operations Supervisor / FLS: \_\_\_\_\_

Legal Description: \_\_\_\_\_

Land Description: \_\_\_\_\_

Landowner Notified: \_\_\_\_\_

Nearest Occupied House: \_\_\_\_\_

Nearest Main Road / Intersection: \_\_\_\_\_

Net Volume Lost: \_\_\_\_\_

Pipe Wall Thickness: \_\_\_\_\_ Specification: \_\_\_\_\_

Seam Type: \_\_\_\_\_ MOP: \_\_\_\_\_

Pressure at Time of Spill / Release: \_\_\_\_\_ SMYS: \_\_\_\_\_

Weather Conditions: \_\_\_\_\_

Area of Spill / Release: \_\_\_\_\_ Media Coverage: Yes ☐ No ☐

## Spill Costs ( in whole dollars ):

Public / Private Property Damage \_\_\_\_\_

Cost of Emergency Response Phase \_\_\_\_\_

Cost of Environmental Remediation \_\_\_\_\_

Value of Product Lost \_\_\_\_\_

Value of Operator Property Damage \_\_\_\_\_

Other Costs \_\_\_\_\_

**Total Cost** \_\_\_\_\_

Describe Other Costs: \_\_\_\_\_

Livestock / Wildlife Impacted: \_\_\_\_\_

If Water Impacted, Name: \_\_\_\_\_

Repair Method Used: \_\_\_\_\_

Method of Clean-up: \_\_\_\_\_

Next Remediation Steps: \_\_\_\_\_

Did Spill / Release Reach an HCA: Yes ☐ No ☐ Could It Reach Water: Yes ☐ No ☐Is Leak / Release on a Segment Identified as a "Could Affect" Segment: Yes ☐ No ☐Is Pipe Configured for In Line Inspection Devices: Yes ☐ No ☐

Date of Last In-Line Inspection: \_\_\_\_\_ Type of Tool: \_\_\_\_\_

Cathodically Protected: Yes ☐ No ☐ Type of System: \_\_\_\_\_Year Installed: \_\_\_\_\_ Has a CIS Been Performed: Yes ☐ No ☐ Year of Last CIS: \_\_\_\_\_



| Agency or Company | Name of Person Taking Report | Time of Notification ( 24 hr format ) | Assigned Incident or Report Number |
|-------------------|------------------------------|---------------------------------------|------------------------------------|
|                   |                              |                                       |                                    |
|                   |                              |                                       |                                    |
|                   |                              |                                       |                                    |
|                   |                              |                                       |                                    |
|                   |                              |                                       |                                    |

| Agency or Company | Due Date | Date Mailed |
|-------------------|----------|-------------|
|                   |          |             |
|                   |          |             |
|                   |          |             |
|                   |          |             |

[illegible]

12-19

**Instructions / Pointers for Spill / Release / Incident Report Form**

The first seventeen lines (highlighted in yellow if completing form on computer) are items needed for initial reporting to agencies and should be provided as soon as possible. Some of the initial items may not be readily known when first notification(s) are made to SHE, so should be provided at a later time when the information can be obtained. For any given spill / release / incident, not every information item will be applicable. Skip those items or enter "N/A".

If completing this form on a computer, there is default text in some of the data entry fields (with the exception of the notification tables), provided as an example of the data needed. The data entry fields are gray shaded, and as data is entered into the fields, the default text will disappear.

GPS coordinates are now required. They tie in to spill tracking by the National Pipeline Mapping System (NPMS) and American Petroleum Institute (API). The format does not matter, it can be converted in SHE if necessary. GPS coordinate formats may look like the following:

1. 13 695512E 4705010N ( UTM format )
2. 42.4728N -102.6216W ( DD.DDD format )
3. 42 28' 22" N -102 37' 18" W ( DMS format )
4. 42 28.37' N -102 37.30' W ( DD MM.MM format )

For some items, it may be necessary to consult with Corrosion Technicians, Facility Engineers, Field ERST Techs / Field Regulatory Specialists, or others to obtain the information.

**12.3.2 Santa Barbara County Release Incident Report Form****HAZARDOUS MATERIALS NON-EMERGENCY/MINOR SPILL/RELEASE****Guidance for Reporting Hazardous Material Spill/Release Incidents**

**What is a "Hazardous Material"?** "Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or threatened hazard to human health and safety or to the environment, if released into the workplace or the environment" - CA H&SC 25501(p)

**Who is obligated to report a spill/release?**

Requirements for providing notification of any spill/releases cover: Owners, Operators, Licensees, Persons in Charge, and Employees. Notification is required regarding releases from facilities, vehicles, vessels, pipelines and railroads.

**What is a spill/release?**

Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of a hazardous material into the environment, unless permitted or authorized by a regulatory agency – CA H&SC 25501(s)

**Who must be notified of a spill/release in Santa Barbara County?**

Pursuant to the California Fire Code (Refer to Chapter 15 of the Santa Barbara County Code) and California Health and Safety Code Section 25507, **all hazardous material released in quantities reportable under state, federal or local regulations, shall be reported to the Local Fire Agency. Local governments can have requirements that are more stringent than state.** In Santa Barbara County, the Local Fire Agency and OEM must be notified. When a minor spill/release occurs, the Hazardous Materials Non-Emergency/Minor Spill/Release Incident Report Form is to be faxed to your Local Fire Agency and OEM listed on Page 1 within 1 working day. Follow-up the fax with a telephone call first thing the next working day to verify receipt of the fax. This will satisfy the emergency notification for these agencies in Santa Barbara County only. Other reporting requirements may apply.

**What other agencies may need to be notified?**

In addition to 9-1-1 and/or faxed Incident Report, the following apply under varying circumstances:

- All releases that equal or exceed Federal Reportable Quantities – Call the National Response Center (NRC) at 1-800-424-8802 or on-line at [www.nvc.uscg.mil/online.htm](http://www.nvc.uscg.mil/online.htm)
- All releases on highway – Call California Highway Patrol at (805) 967-1234.
- All hazardous waste tank releases – Call Department of Toxic Substances Control Regional Office at (818) 551-2933
- All serious worker injuries or harmful exposures – Call Cal OSHA District Office at (805) 654-4581
- All oil spills at drilling and production fixed facilities – Call Conservation Department, Division of Oil, Gas and Geothermal Resources at (805) 937-7246.
- All spills with a potential to impact State water quality – Call State Fish & Wildlife Department at (916) 445-0045
- All significant, potential or actual railroad releases – Public Utilities Commission at (213) 897-2975.
- All Hazardous Liquid Pipelines – Call Local Fire Agency (Page 1).
- All Natural Gas Pipelines – Call Public Utilities Commission at (213) 897-2975.
- Consult Federal, State and Local laws and regulations for complete notification requirements.

**Reminder: All significant hazardous material spills/releases or threatened releases must also be reported to the Cal OES State Warning Center at 800-852-7550.**

**What other statutes and regulations require emergency notification of a hazardous material release?**

- |                                     |  |
|-------------------------------------|--|
| • California Health and Safety Code | Sections 25270.8, 25507, 25503(c)(9)         |
| • CA Vehicle Code                   | Section 23112.5                              |
| • CA Public Utilities code          | Section 7673 (c)                             |
| • CA Government Code                | Sections 51018, 8670.25.5(a)                 |
| • CA Water Code                     | Sections 13271(a), 13272(a), 13260(a)        |
| • California Labor Code             | Section 9030                                 |
| • U.S. Code, Title 42               | Sections 9603, 11004                         |
| • California Code of Regulations    | Title 8, Section 5209                        |
|                                     | Title 13, Section 1166                       |
|                                     | Title 14, Section 1722(h)                    |
|                                     | Title 19, Sections 2703(e), 2705             |
|                                     | Title 22, Sections 66265.56(j), 66265.196(e) |
|                                     | Title 23, Sections 2230, 2250, 2251, 2260    |
|                                     | Part 171.16                                  |
| • 49 CFR                            |  |
- Other Federal and State laws / regulations may apply.

**Are there any web sites available to review the statutes and regulations?**

State Regulations <http://www.caloes.ca.gov/http://www.caloes.ca.gov/cal-oes-divisions/fire-rescue/hazardous-materials/spill-release-reporting>

Federal Regulations <https://www.epa.gov/enforcement> and [www.ecfr.gov](http://www.ecfr.gov)

**HAZARDOUS MATERIALS NON-EMERGENCY/MINOR SPILL/RELEASE****INCIDENT REPORT FORM**

Fax Completed Incident Report Form Within 1 Working Day To Local Fire Agency & OEM Listed On Page 1 And Follow Up With A Phone Call First Thing The Next Business Day.

**1. INCIDENT AND RESPONSE DESCRIPTION**911 CALLED? ☐ Yes ☐ No

|  |             |  |
|--|-------------|--|
| Date / Time Discovered   | Date / Time | Discharge Stopped <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Incident Reporting Date / Time   |             |  |
| Incident Business / Site Name  |             |  |
| Incident Address   |             |  |
| Other Locators (Bldg, Room, Oil Field, Lease, Well #, GIS)                           |             |  |
| Please describe the incident and indicate specific causes and area affected.         |             |  |
|  |             |  |
| Indicate actions to be taken to prevent similar spills from occurring in the future. |             |  |
|  |             |  |

**2. ADMINISTRATIVE INFORMATION**

|  |       |
|--|-------|
| Business Name                            |       |
| Address                                  |       |
| Supervisor in charge at time of incident | Phone |
| Contact Person                           | Phone |

**3. HAZARDOUS MATERIAL / RELEASE INFORMATION** CALL 911 FOR RELEASES INTO WATERWAYS, WETLANDS OR AGRICULTURE AREAS.

|                                 |          |  |
|---------------------------------|----------|--|
| Chemical                        | Quantity | <input type="checkbox"/> GAL <input type="checkbox"/> LBS <input type="checkbox"/> FT <sup>3</sup> |
| Chemical                        | Quantity | <input type="checkbox"/> GAL <input type="checkbox"/> LBS <input type="checkbox"/> FT <sup>3</sup> |
| Chemical                        | Quantity | <input type="checkbox"/> GAL <input type="checkbox"/> LBS <input type="checkbox"/> FT <sup>3</sup> |
| Clean-Up Procedures & Timeline: |          |  |
|                                 |          |  |
| Completed By                    |          |  |
| Print Name                      |          | Phone  |
| Title                           |          | Date and Time  |

**Santa Barbara County Local Fire Agency Use Only**

|  |   |   |  |
|--|---|---|--|
| Date Received  | Time  | OES Control #   | CIR #  |
| Received By  |   | Assigned To   | ER <input type="checkbox"/> Yes <input type="checkbox"/> No              |
| Date / Time Reported to 911  |   | Late Report <input type="checkbox"/> Yes <input type="checkbox"/> No                  | INCIDENT #   |
| From 911 Dispatch <input type="checkbox"/> Yes <input type="checkbox"/> No | Investigator Requested <input type="checkbox"/> Yes <input type="checkbox"/> No | Time of Request   |  |
| Time Responding  | Time On Scene   | Time Back in Service  | <input type="checkbox"/> Joint <input type="checkbox"/> Multi-Agency     |
| PROP 65 <input type="checkbox"/> Yes <input type="checkbox"/> No           | DATE/TIME TO HCS  | DATE/TIME TO COUNTY OEM   |  |
| MATERIAL   |   | VOLUME  |  |
| HAZARD   |   | EVACUATION/ACCESS RESTRICTED <input type="checkbox"/> Yes <input type="checkbox"/> No |  |
| Current Status   | <input type="checkbox"/> Clean-Up Underway                                      | <input type="checkbox"/> Pollution Characterization Underway                          | <input type="checkbox"/> Case Closed (Clean-Up Completed or Unnecessary) |
|  | <input type="checkbox"/> Condition Abated                                       | <input type="checkbox"/> Preliminary Site Assessment Underway                         | <input type="checkbox"/> Investigation                                   |
|  | <input type="checkbox"/> No Action Taken  | <input type="checkbox"/> Other  |  |

## COMMENTS

## NOTIFICATION CHECKLIST

CODE 20 ☐ Yes ☐ No ☐ UNKNOWN☐ LOCAL FIRE☐ APCD☐ CAL TRANS☐ COUNTY OEM☐ COUNTY PETROLEUM☐ COUNTY Ag COM☐ ROAD DEPT☐ CHP☐ CAL OSHA☐ STATE OES RESPONSE☐ STATE DOGGR☐ STATE FISH & WILDLIFE☐ STATE RWQCB☐ EHS☐ CLERK OF THE BOARD



## 12.4 Agency Contacts

### 12.4.1 Federal Agencies

| Federal Agency Contacts  |                              |
|--|------------------------------|
| Agency   | Phone                        |
| National Response Center                                       | 800-424-8802                 |
| EPA Region IX  | 800-300-2193                 |
| US Coast Guard Sector Los Angeles/Long Beach                   | 800-221-8724                 |
| Pipeline and Hazardous Materials Safety Administration (PHMSA) | 202-366-4595                 |
| Western Region Office  | 720-963-3160                 |
| Occupational Safety and Health Administration                  | 800-321-5742                 |
| Bureau of Land Management California State Office              | 916-978-4400                 |
| Bureau of Land Management Bakersfield Office                   | 661-391-6000                 |
| US Forest Service  | 805-968-6640                 |
| Army Corps of Engineers  | 213-452-3413                 |
| US Fish and Wildlife Pacific Southwest Region Office           | 918-414-6464                 |
| Ventura Office   | 805-644-1766                 |
| U.S. Forest Service Los Padres National Forest                 | 805-968-6640                 |
| U.S. Forest Service LA Basin                                   | 628-574-5200                 |
| Federal Bureau of Investigation                                | 805-642-3995<br>310-477-6565 |



### 12.4.2 State Agencies

| State Agency Contacts   |  |
|---|--|
| Agency  | Phone  |
| California Office of Emergency Services   | 800-852-7550                                 |
| California Department of Fish and Wildlife  | 800-852-7750                                 |
| State Fire Marshall Pipeline Safety   | 862-497-0350                                 |
| Department of Toxic Substances Control  | 800-618-6942<br>805-654-4581                 |
| Cal OSHA  | 805-654-4581                                 |
| Division of Oil, Gas and Geothermal Resources   | 805-937-7246<br>805-937-7246<br>714-816-6847 |
| Cal State Fish and Wildlife   | 916-445-0411<br>916-445-0045                 |
| State Parks ( <i>El Presidio-Historic State Park, Painted Cave, El Capitan State Beach, Refugio State Beach, Gaviota-State Park, La Purisima-Mission, Point Sal State Beach</i> ) | 805-968-3852<br>951-443-2669<br>(SURCOM)     |
| Public Utilities Commission   | 213-897-2975                                 |
| Highway Patrol (CHP)  | 805-967-1234                                 |
| CHP Goleta  | 911<br>805-967-1234                          |
| CHP Buellton  | 911<br>805-688-5551                          |
| CalTrans Santa Barbara and San Luis Obispo Counties   | 805-549-3111                                 |
| CalTrans Kern County  | 559-488-4038                                 |
| Central Valley Regional Water Quality Control Board CV/FB   | 559-445-5116                                 |
| Central Coast Regional Water Quality Control Board CCRWQCB  | 916-464-3291<br>559-445-5116                 |
| Department of Water Resources   | 916-574-2714                                 |
| Native American Heritage Commission   | 916-373-3710                                 |
| State Historic Preservation Officer (SHIPO)   | 916-445-7000                                 |
| Central Coast Archeological Information Center  | 805-893-2474                                 |

### 12.4.3 Local Agencies

| Local Agency Contacts                                    |  |                                     |
|--|--|-------------------------------------|
| Agency   | Location                                   | Phone                               |
| Santa Barbara County                                     |  |                                     |
| County Emergency Dispatch Center                         | Santa Barbara County                       | 911<br>805-683-2724                 |
| County Fire Department                                   | Santa Barbara County                       | 911<br>805-683-2724                 |
| Station 1  | Gaviota, Bulleton                          | 911<br>805-68-5518<br>805-686-5062  |
| Station 2  | Santa Ynez, Los Alamos                     | 911<br>805-686-5058<br>805-934-6215 |
| Station 3  | Santa Maria, Sisquoc                       | 911<br>805-934-6293<br>805-934-6294 |
| Office of Emergency Management                           | Santa Barbara County                       | 805-681-5526                        |
| Region 1 Local Emergency Planning Commission (LEPC)      | Santa Barbara and San Luis Obispo Counties | 310-781-7000<br>562-795-2958        |
| County Petroleum Office                                  | Santa Barbara County                       | 805-934-6128                        |
| P&D Department of Energy & Minerals                      | Santa Barbara County                       | 805-844-5334<br>805-568-2000        |
| Environmental Health Hazardous Materials Division (CUPA) | Santa Barbara County                       | 805-681-4927                        |
| County Sheriff   | Buellton, New Cuyama, Santa Maria          | 911<br>805-681-4100                 |
| Santa Maria Valley Water Conservation                    | Santa Maria                                | 805-925-5212                        |
| City of Buellton   | Buellton                                   | 805-688-5177                        |
| City of Goleta   | Goleta                                     | 805-961-7500                        |
| San Luis Obispo  |  |                                     |
| Office of Emergency Services                             | San Luis Obispo                            | 805-781-5011<br>805-543-7082        |
| Arroyo Grande Police                                     | Arroyo Grande                              | 911<br>805-473-5100                 |
| Kern County  |  |                                     |
| Region V Local Emergency Planning Commission (LEPC)      | Kern County                                | 916-396-9292                        |
| Kern County Fire Department                              | Kern County                                | 911 / 661-324-6551                  |

## 13.1 Response Equipment

Response equipment and supplies are not located at facilities within the Las Flores Pipeline Response Zone. The Response Zone relies on OSRO equipment and supplies.

## 13.2 Communications

The following communications systems may be used for notification and emergency response operations:

- Cellular phones – most supervisors and key operations personnel have cellular phones.
- Land lines phones - the manned facilities, and many of unmanned facilities, have land line phones, and
- Mobile satellite phones – are located throughout the Regions.

As the need arises, additional communications equipment can be cascaded in from the contracted OSROs.

## 13.3 Response Contractors

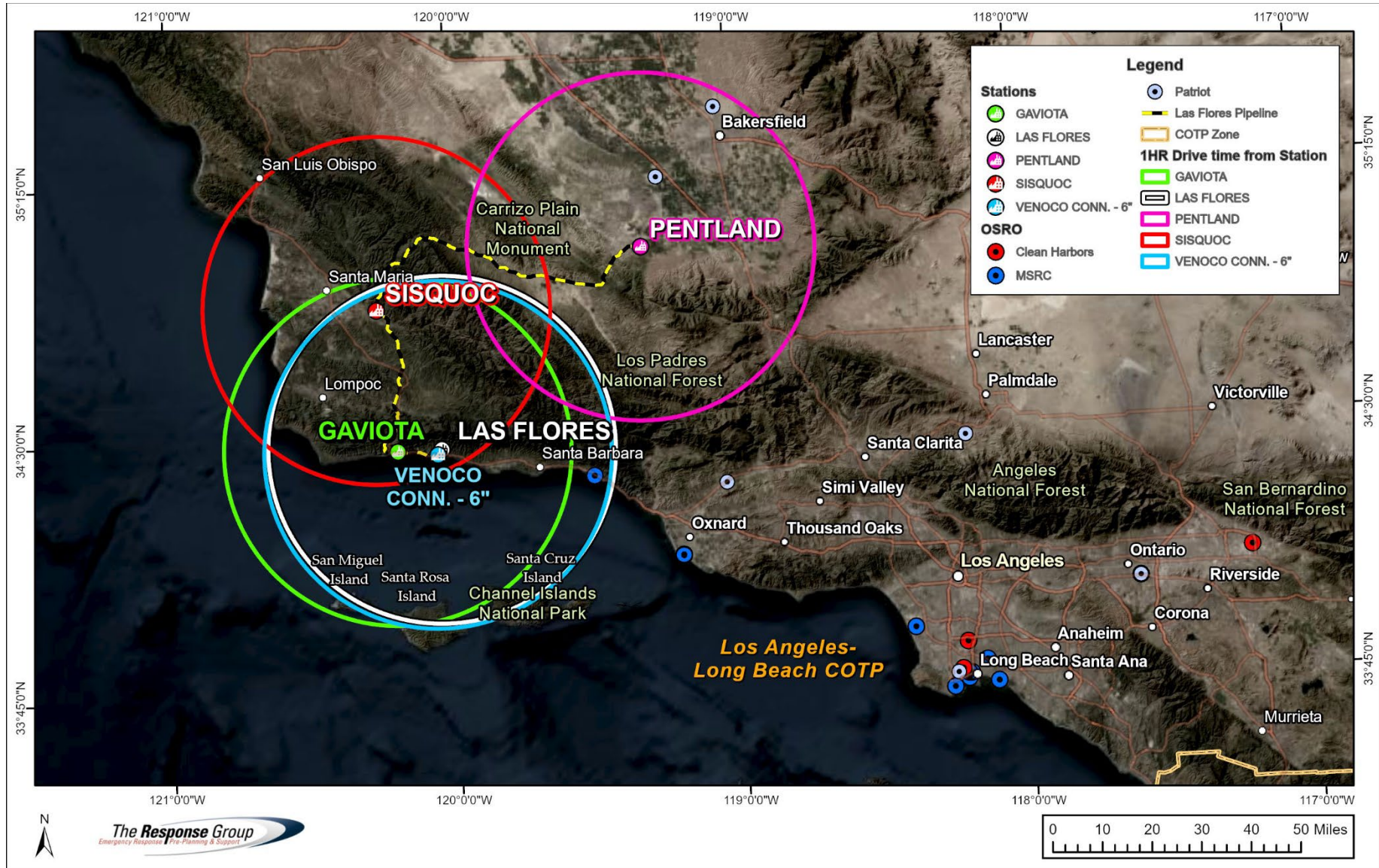
### 13.3.1 Classified Oil Spill Removal Organizations (OSRO)

An approved list of OSRO's that operate in the State of CA can be found here:

<https://wildlife.ca.gov/OSPR/OSRO>.

| Classified OSROs                      |   |                              |
|---------------------------------------|---|------------------------------|
| Company                               | Captain of the Port Zone<br><u>Coast Guard Classification</u>   | Phone Number                 |
| Marine Spill Response Corporation #22 | Los Angeles/Long Beach<br><i>River or Canal: MMPD, WCD1, WCD2, WCD3</i><br><i>Inland: MMPD, WCD1, WCD2, WCD3</i><br><i>Near Shore: MMPD, WCD1, WCD2, WCD3</i> | 800-645-7745<br>800-259-6772 |
| Patriot Environmental #146            | Los Angeles/Long Beach<br><i>River or Canal: MMPD</i><br><i>Inland: MMPD</i>  | 800-624-9136                 |
|                                       |   |                              |

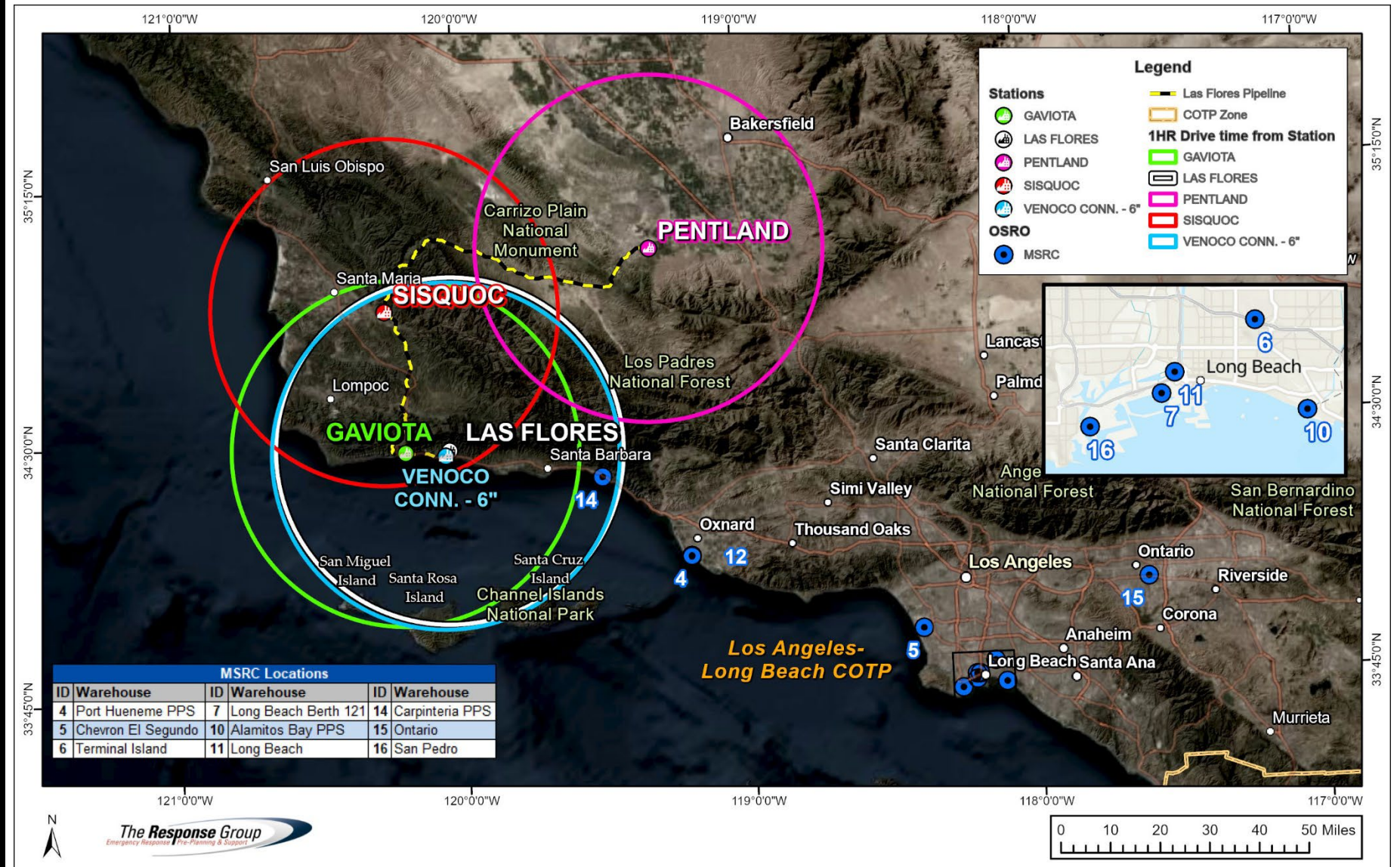




**13.3.1.1 Marine Spill Response Corporation**

Insert Sable Offshore Corp. OSRO Contract





Travel from MSRC to Stations

---

| Travel to Sisquoc    |               |
|----------------------|---------------|
| To Venoco            | Distance (Mi) |
| Port Hueneme         | 95.9 miles    |
| Chevron El Segundo   | 158 miles     |
| Terminal Island      | 171 miles     |
| Long Beach Berth 121 | 179 miles     |
| Alamitos Bay PPS     | 180 miles     |
| Long Beach           | 171 miles     |
| Carpenteria PPS      | 87.3 miles    |
| Ontario              | 191 miles     |
| San Pedro            | 173 miles     |

| Travel to Pentland   |               |
|----------------------|---------------|
| To Venoco            | Distance (Mi) |
| Port Hueneme         | 101 miles     |
| Chevron El Segundo   | 117 miles     |
| Terminal Island      | 130 miles     |
| Long Beach Berth 121 | 133 miles     |
| Alamitos Bay PPS     | 152 miles     |
| Long Beach           | 131 miles     |
| Carpenteria PPS      | 94.5 miles    |
| Ontario              | 144 miles     |
| San Pedro            | 133 miles     |



## Travel from MSRC to Stations

| Travel to Venoco Connection |               |
|-----------------------------|---------------|
| To Venoco                   | Distance (Mi) |
| Port Hueneme                | 62.5 miles    |
| Chevron El Segundo          | 124 miles     |
| Terminal Island             | 137 miles     |
| Long Beach Berth 121        | 140 miles     |
| Alamitos Bay PPS            | 143 miles     |
| Long Beach                  | 138 miles     |
| Carpenteria PPS             | 36.4 miles    |
| Ontario                     | 168 miles     |
| San Pedro                   | 140 miles     |

| Travel to Las Flores |               |
|----------------------|---------------|
| To Venoco            | Distance (Mi) |
| Port Hueneme         | 61.3 miles    |
| Chevron El Segundo   | 123 miles     |
| Terminal Island      | 136 miles     |
| Long Beach Berth 121 | 139 miles     |
| Alamitos Bay PPS     | 142 miles     |
| Long Beach           | 137 miles     |
| Carpenteria PPS      | 35.2 miles    |
| Ontario              | 156 miles     |
| San Pedro            | 139 miles     |

| Travel to Gaviota    |               |
|----------------------|---------------|
| To Venoco            | Distance (Mi) |
| Port Hueneme         | 69.5 miles    |
| Chevron El Segundo   | 131 miles     |
| Terminal Island      | 144 miles     |
| Long Beach Berth 121 | 147 miles     |
| Alamitos Bay PPS     | 150 miles     |
| Long Beach           | 145 miles     |
| Carpenteria PPS      | 43.4 miles    |
| Ontario              | 175 miles     |
| San Pedro            | 147 miles     |

## MSRC Equipment Summary

**Port Hueneme PPS**

| Item/Description        | Quantity |
|-------------------------|----------|
| 20" Curtain Boom (Feet) | 1500     |

**Chevron El Segundo**

| Item/Description                   | Quantity |
|------------------------------------|----------|
| 26" Tidal Seal Boom (feet)         | 6000     |
| 67" Inflatable Curtain Boom (feet) | 9680     |
| 500 BBL: Towable Storage           | 2        |

**Terminal Island**

| Item/Description                                       | Quantity |
|--|----------|
| 6" Curtain Boom (feet)                                 | 3075     |
| 10" Curtain Boom (feet)                                | 1800     |
| 18" Curtain Boom (feet)                                | 5700     |
| 20" Curtain Boom (feet)                                | 100      |
| 20" Curtain Boom (feet)                                | 200      |
| 24" Curtain Boom (feet)                                | 3300     |
| 36" Curtain Boom (feet)                                | 6000     |
| 43" Curtain Boom, Self-Expand (feet)                   | 1750     |
| 50" Curtain Boom (feet)                                | 330      |
| 67" Curtain Boom (feet)                                | 110      |
| Portable Tank/ 57 BBL                                  | 4        |
| Portable Tank/ 10 BBL                                  | 9        |
| Comms Support Trailer                                  | 1        |
| Thermal & HD Drone                                     | 1        |
| Multispectral - Near Wave - IR Long Wave IR (Aircraft) | 1        |

**Long Beach Berth 121**

| Item/Description        | Quantity |
|-------------------------|----------|
| 43" Curtain Boom (feet) | 7000     |

**Alamitos PPS**

| Item/Description        | Quantity |
|-------------------------|----------|
| 24" Curtain Boom (feet) | 800      |

## MSRC Equipment Summary

**Long Beach**

| Item/Description                     | Quantity |
|--------------------------------------|----------|
| 20" Curtain Boom (feet)              | 800      |
| 43" Curtain Boom, Self-Expand (feet) | 3500     |
| FLIR Thermal Camera                  | 1        |

**Carpinteria PPS**

| Item/Description      | Quantity |
|-----------------------|----------|
| 6" Curtain Boom       | 500      |
| 10" Curtain Boom      | 6000     |
| 20" Curtain Boom      | 15000    |
| 24" Curtain Boom      | 400      |
| 43" Curtain Boom      | 5500     |
| 60" Curtain Boom      | 2750     |
| 28" Underflow Dam     | 1        |
| 40" Underflow Dam     | 1        |
| Portable Tank/ 57 BBL | 10       |
| 27' Van/Cargo Trailer | 1        |
| FLIR Thermal Camera   | 3        |

**Ontario**

| Item/Description      | Quantity |
|-----------------------|----------|
| 10" Curtain Boom      | 1000     |
| 28" Underflow Dam     | 2        |
| Portable Tank/ 57 BBL | 1        |

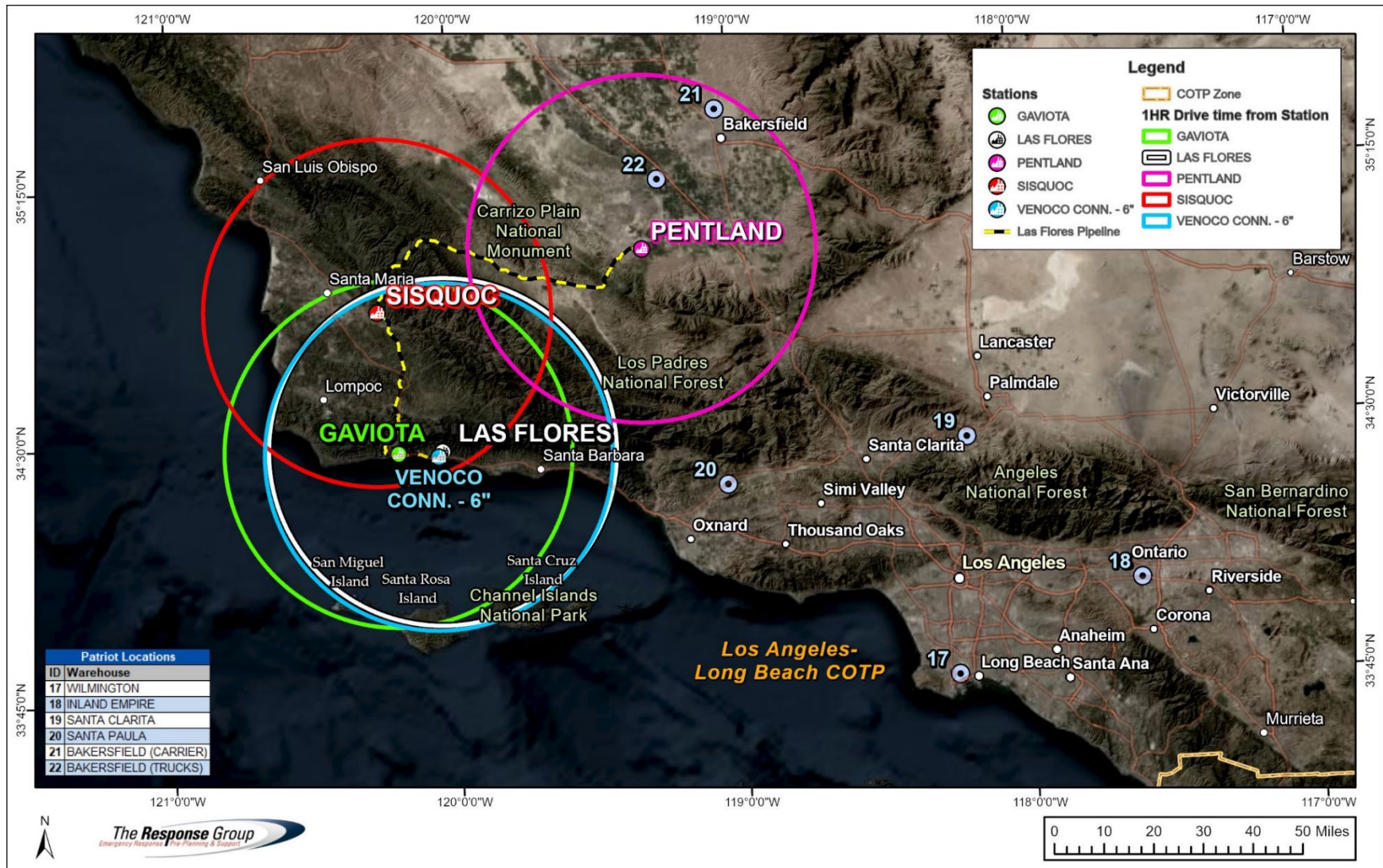
**San Pedro**

| Item/Description    | Quantity |
|---------------------|----------|
| 20" Curtain Boom    | 1000     |
| 43" Curtain Boom    | 2400     |
| 60" Curtain Boom    | 5280     |
| FLIR Thermal Camera | 1        |



**13.3.1.2 Patriot Environmental**

Insert Sable Offshore Corp. OSRO Contract



## Travel from Patriot to Stations

**Travel to Venoco Connection**

| To Venoco             | Distance (Mi) |
|-----------------------|---------------|
| Wilmington            | 136 miles     |
| Inland Empire         | 168 miles     |
| Santa Clarita         | 129 miles     |
| Santa Paula           | 67.8 miles    |
| Bakersfield (Carrier) | 182 miles     |
| Bakersfield (Trucks)  | 156 miles     |

**Travel to Las Flores**

| To Venoco             | Distance (Mi) |
|-----------------------|---------------|
| Wilmington            | 135 miles     |
| Inland Empire         | 156 miles     |
| Santa Clarita         | 129 miles     |
| Santa Paula           | 66.6 miles    |
| Bakersfield (Carrier) | 184 miles     |
| Bakersfield (Trucks)  | 158 miles     |

**Travel to Gaviota**

| To Venoco             | Distance (Mi) |
|-----------------------|---------------|
| Wilmington            | 143 miles     |
| Inland Empire         | 175 miles     |
| Santa Clarita         | 136 miles     |
| Santa Paula           | 74.8 miles    |
| Bakersfield (Carrier) | 176 miles     |
| Bakersfield (Trucks)  | 150 miles     |

**Travel to Sisquoc**

| To Venoco             | Distance (Mi) |
|-----------------------|---------------|
| Wilmington            | 170 miles     |
| Inland Empire         | 191 miles     |
| Santa Clarita         | 168 miles     |
| Santa Paula           | 101 miles     |
| Bakersfield (Carrier) | 128 miles     |
| Bakersfield (Trucks)  | 102 miles     |



Travel from Patriot to Stations

---

| Travel to Pentland    |               |
|-----------------------|---------------|
| To Venoco             | Distance (Mi) |
| Wilmington            | 129 miles     |
| Inland Empire         | 144 miles     |
| Santa Clarita         | 107 miles     |
| Santa Paula           | 98.7 miles    |
| Bakersfield (Carrier) | 44.9 miles    |
| Bakersfield (Trucks)  | 26.8 miles    |

## Patriot Environmental Services Equipment Summary

**Wilmington**

| Item/Description            | Quantity |
|-----------------------------|----------|
| 18" Containment Boom (Feet) | 4000     |
| Drum Skimmers               | 3        |
| Skim Paks                   | 2        |
| Storage Bladders            | 6        |
| Vac Trucks                  | 14       |

**Inland Empire**

| Item/Description | Quantity |
|------------------|----------|
| Storage Bladders | 1        |
| Vac Trucks       | 6        |

**Santa Clarita**

| Item/Description | Quantity |
|------------------|----------|
| Vacuum Trucks    | 5        |

**Santa Paula**

| Item/Description            | Quantity |
|-----------------------------|----------|
| 18" Containment Boom (Feet) | 4000     |
| Drum Skimmers               | 2        |
| Skim Paks                   | 2        |
| Storage Bladders            | 1        |
| Vacuum Trucks               | 17       |

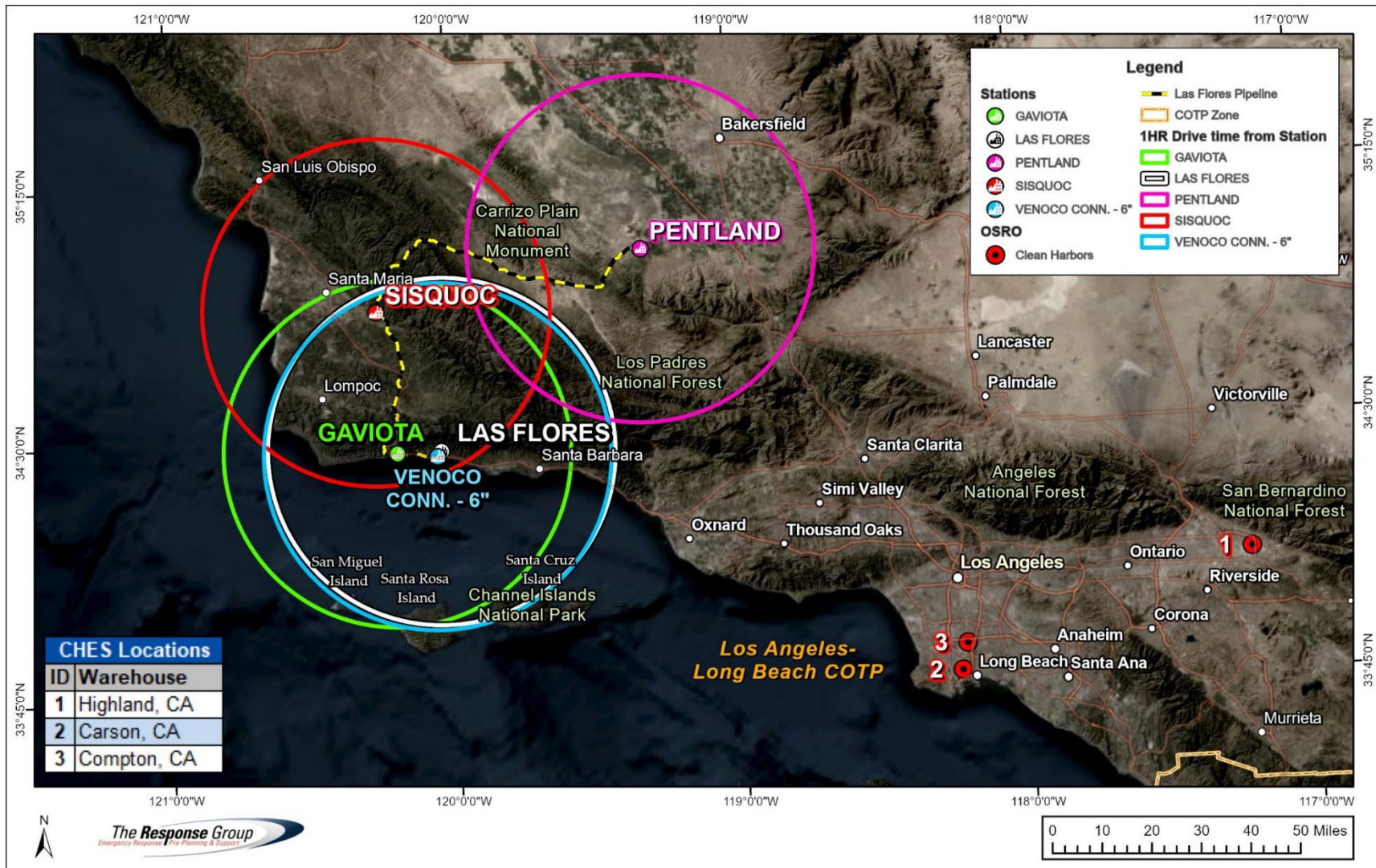
**Bakersfield Carrier/OSRO**

| Item/Description            | Quantity |
|-----------------------------|----------|
| 12" Containment Boom (Feet) | 1100     |
| 18" Containment Boom (Feet) | 1800     |
| Skim Paks                   | 1        |
| Storage Bladders            | 1        |
| Vacuum Trucks               | 21       |



**13.3.1.3 Clean Harbors**

Insert Sable Offshore Corp. OSRO Contract



Travel from Clean Harbors to Stations

---

**Travel to Venoco Connection**

| To Venoco | Distance (Mi) |
|-----------|---------------|
| Highland  | 189 miles     |
| Carson    | 136 miles     |
| Compton   | 133 miles     |

**Travel to Las Flores**

| To Venoco | Distance (Mi) |
|-----------|---------------|
| Highland  | 188 miles     |
| Carson    | 135 miles     |
| Compton   | 132 miles     |

**Travel to Gaviota**

| To Venoco | Distance (Mi) |
|-----------|---------------|
| Highland  | 196 miles     |
| Carson    | 143 miles     |
| Compton   | 140 miles     |

**Travel to Sisquoc**

| To Venoco | Distance (Mi) |
|-----------|---------------|
| Highland  | 223 miles     |
| Carson    | 176 miles     |
| Compton   | 167 miles     |

**Travel to Pentland**

| To Venoco | Distance (Mi) |
|-----------|---------------|
| Highland  | 166 miles     |
| Carson    | 132 miles     |
| Compton   | 127 miles     |



## Clean Harbors Equipment Summary

**494G Highland SERVICE CENTER**  
**Highland, CA**

Supervisor: 0  
Class A Driver: 1  
Field Technician:  
14 Foreman: 2  
Project Manager: 0

| Item/Description | Quantity |
|------------------|----------|
| Air Compressors  | 1        |
| Comms Units      | 16       |
| Gas Meters       | 3        |
| Generators       | 3        |
| Pressure Washers | 2        |
| Pumps            | 3        |
| Vehicles         | 8        |

**Carson, CA**

| Item/Description            | Quantity |
|-----------------------------|----------|
| 18" Containment Boom (feet) | 23900    |

## Clean Harbors Equipment Summary

| LOS ANGELES SERVICE CENTER |          |
|----------------------------|----------|
| Compton, CA                |          |
| Supervisor: 5              |          |
| Equipment Operator: 9      |          |
| Field Technician: 78       |          |
| Foreman: 9                 |          |
| Site Safety Officer: 1     |          |
| Project Manager: 2         |          |
| Coordinator: 2             |          |
| Operations Manager: 1      |          |
| Item/Description           | Quantity |
| 18"Containment Boom (feet) | 4500     |
| Air Compressors            | 4        |
| Equipment Trailers         | 1        |
| Gas Meters                 | 14       |
| Gas Test Kits              | 10       |
| Generators                 | 2        |
| Light Towers               | 2        |
| Pressure Washers           | 5        |
| Pumps                      | 3        |
| Roll Off Trailers          | 6        |
| Skid Steer                 | 1        |
| Skimmers                   | 2        |
| Spill Trailers             | 3        |
| Tractors                   | 5        |
| Trucks/Pickups             | 36       |
| Vacuum Trailers            | 5        |
| Vacuum Trucks              | 3        |
| Vacuum Units               | 10       |



**13.3.2 Additional Response Contractors**

| Additional Response Contractors       |   |                                 |
|---------------------------------------|---|---------------------------------|
| Company                               | Address   | Phone Number                    |
| Incident Management and Documentation |   |                                 |
| The Response Group                    | 108 Innwood Drive<br>Covington, LA 70433          | 281-880-5000 or<br>985-400-5445 |
| Gallagher Marine Systems              | 206 Avenida Montalvo 14<br>San Clemente, CA 92672 | <b>949-361-1822</b>             |
| General Contractors                   |   |                                 |
| PSC                                   | 30790 7th Standard Road<br>Bakersfield, CA, 93314 | <b>661-746-0157</b>             |
| Southwest Contractors                 | Bakersfield, CA                                   | 661-588-0484                    |

**13.3.3 Wildlife Response and Rehabilitation Contractors**

Sable Offshore Corp. will utilize the California Oiled Wildlife Care Network (OWCN) to meet its oiled wildlife care requirements. The Administrator of the Office of Oil Spill Prevention and Response (OSPR), California Department of Fish and Wildlife in cooperation with the University of California has organized a network of private wildlife care centers and provided funding sources for capital improvement, equipment, supplies, ongoing training, and research thereby establishing the OWCN.

| Wildlife Rehab Organizations    |              |                  |   |
|---------------------------------|--------------|------------------|---|
| Name                            | Main Number  | Alternate Number | Email Address   |
| Oiled Wildlife Care Network     | 877-823-6926 | 530-752-3630     | <a href="http://www.vetmed.ucdavis.edu/owcn/">http://www.vetmed.ucdavis.edu/owcn/</a> |
| International Bird Rescue (IBR) | 510-841-9086 | 707-207-0380     | <a href="http://www.bird-rescue.org">http://www.bird-rescue.org</a>                   |
| Tri-State Bird Rescue           | 302-737-7241 | --               | <a href="http://www.tristatebird.org/">http://www.tristatebird.org/</a>               |

**13.3.4 Waste Management**

The transportation of oil, oily water, and oiled debris to permitted facilities via truck, tank truck, barge, etc. will be conducted in an environmentally safe manner consistent with applicable Federal and State regulations, and Sable Offshore Corp. policy. Hazardous material will be transported by permitted transporters and recycled or disposed of in permitted facilities.

The following is a list of Sable Offshore Corp. approved disposal companies or management contractors for each category of waste:

| Waste Management and Disposal Sites                          |                |   |              |
|--|----------------|---|--------------|
| Company  | Address        | Phone                                       | EPA ID #     |
| Clean Harbors Buttonwillow, L.L.C                            | Buttonwillow   | 661-762-6200                                | CAD980675276 |
| Chemical Waste Management - Kettleman Hills Facility         | Kettleman City | 559-386-9711                                | CAT000646117 |
| Gemini Industries, Inc.                                      | Santa Ana      | 949-250-4011                                | CAD060398229 |
| Crosby & Overton, Inc.                                       | Long Beach     | 562-432-5445                                | CAD028409019 |
| McKittrich Waste Treatment Site                              | McKittrich     | <a href="tel:866-909-4458">866-909-4458</a> | --           |
| Republic Vasco Road Landfill                                 | Livermore      | 925-447-0491                                | CAD028409019 |
| Soil Safe of California, Inc.                                | Adelanto       | 760-246-8001<br>800-862-8001                | --           |
| Veolia ES Technical Solutions                                | Richmond       | 510-233-8001                                | CAD981453194 |
| Siemens Water Technologies Corp<br>Evoqua Water Technologies | Red Bluff      | 530-527-2664<br>(866) 926-8420              | CAT080014079 |
| DeMenno/Kerdoon (D/K)  | Compton        | 310-537-7100                                | --           |
| InStrat, Inc   | Rio Vista      | 530-753-1829                                | --           |
| Cardno ERI Ventura Warehouse                                 | Ventura        | 805-644-4157                                | --           |
| Waste Management Landfill                                    | Azusa          | 626-334-0719                                | --           |
| Veolia ES Technical Solutions, LLC                           | Azusa          | 626-334-5117                                | --           |
| Clean Harbors Wilmington, LLC                                | Wilmington     | 310-835-9998                                | --           |
| WM El Sobrante Landfill                                      | Corona         | 866-909-4458                                | --           |
| Kinsbursky Brothers Supply, Inc.                             | Anaheim        | 714-738-8516                                | --           |
| Ted Levine Drum Company                                      | South El Monte | 626-579-1084                                | --           |
| Santa Maria Landfill   | Santa Maria    | 805-925-0951<br>ext. 7270                   | --           |

**13.4 Other Contractors & Suppliers**

| Additional Services                                |                              |
|--|------------------------------|
| Name   | Main Number                  |
| Aviation Services                                  |                              |
| The Response Group (UAV)                           | 281-880-5000 or 985-400-5445 |
| Environmental Services                             |                              |
| Goldberg Environmental Service – Santa Barbara, CA | 805-687-6046                 |
| Cardno   | 707-338-6991                 |
| Environmental Testing, Sampling, Labs              |                              |
| Test America Sacramento                            | 916-374-4308                 |
| Eurofins CalScience (NESHAPS)                      | 714-895-5494                 |
| Utilities  |                              |
| PG&E   | 800-743-5000                 |
| Contractors – General / Marine / Oil Field         |                              |
| PSC  | 661-746-0157                 |
| Southwest Contractors                              | 661-588-0484                 |

## 14.1 Worst Case Discharge

### 14.1.1 Volume

Currently, the lines are all active, but have been drained, nitrogen purged and idled. Prior to the lines returning to service, the WCD volume will be assessed and the plan updated. (See TLC diagram in 16.3).

| Worst-Case Discharge |                      |         |                     |   |
|----------------------|----------------------|---------|---------------------|---|
| Volume (bbl.)        | Line Segment (miles) | Section | Section Name        | Pipelines / Systems                             |
| 0                    | 21                   | CA-325B | Sisquoc to Pentland | Las Flores Pipeline System to Pentland Pipeline |

### 14.1.2 Location of Worst-Case Discharge

San Louis Obispo, California

### 14.1.3 Type of Oil

| Type of Oil         |       |      |
|---------------------|-------|------|
| Name                | Guide | ID   |
| Petroleum Crude Oil | 128   | 1267 |

### 14.1.4 Weather Conditions

The worst-case discharge (WCD) calculation considers the following adverse conditions:

- Wednesday evening proceeding the Thanksgiving Holiday
- 5 mph wind from the southwest
- Cold with light rain

### 14.1.5 Selection Criteria

The WCD for the Las Flores Pipeline Response Zone is the largest of the following considered volumes documented below.

- The largest tank considering prevention credits.
- The largest pipeline volume plus the volume lost to flow during detection and shutdown.
- Spill history.

## 14.2 Worst Case Discharge/Reasonable Worst Case Spill Analysis

### 14.2.1 Breakout Tank Calculation

There are no breakout tanks located within the response zone.

### 14.2.2 Historical Releases

| Historical Releases |                        |                            |                             |   |
|---------------------|------------------------|----------------------------|-----------------------------|---|
| Date                | Quantity Spilled (BBL) | Spill to Soil, Water, Both | Spill from Tank or Pipeline | Incident Summary  |
| May 21, 2015*       | 2,934                  | Both                       | CA-324                      | L901 (CA-324) was transporting heavy crude leaving Las Flores station and was released near MP 6.7, traveling overland, and impacting the Pacific/Refugio Beach Area. At the time of the incident, the line was not owned by Sable Offshore Corp. |



### 14.2.3 Pipeline System Calculations

For purposes of estimating the time to detect a release it is assumed the mode of failure is a catastrophic failure or impingement of the pipeline because these are the only conditions where maximum flow rate would apply.

The WCD/RWCS line section on the CA-325B is between the Check Valve at Shelby Ranch (4791+61) and a MOV located at the San Andres fault (5900+64).

| Pipeline System Calculations                    |   |  |
|---|---|--|
| $WCD/RWCS = [(RDT + SRT) \times (MFR)] + [LDV]$ |   |  |
| Where:  |   |  |
| RDT   | = | The pipeline system release detection time in hours = .48 hours.   |
| SRT   | = | The shutdown response time in hours = .10 hours.   |
| MFR   | = | The maximum flow rate in barrels per hour (BPH), based on the maximum daily capacity of the pipeline = 0 barrels per hour (BPH).   |
| LDV   | = | The line drainage down volume calculation, in barrels, considers all of the pipe volume that can drain, by gravity alone, through the rupture. The calculation considers pipe in the upstream direction until the nearest remote operated valve (ROV) (since check valves only prevent backflow) and in the downstream direction until the nearest check valve or ROV. The calculation considers pipe that is higher elevation than the release point but not lower elevation than a closer relative maximum. So, in simple terms, the downstream side of hills are included on the upstream side of the release point and the upstream side of hills are included on the downstream side of the release point. The LDV for the WCD/RWCS location is 0 bbl.. |
| WCD   | = | Total WCD is 0 bbl.  |



The above graph illustrates the LDV for the WCD/RWCS location, which is located on the Sisquoc to Pentland line segment. The nearest upstream ROV is at Carrizo, and the nearest downstream valve (check or ROV) is at San Andreas. The gray line below is the elevation profile, and the orange line is the spill volume. The red portions of the gray line are the segments that contribute to the LDV of 41,899 bbl. As you can see on the graph, there is a significant amount of pipe between the upstream and downstream valves that is not red, because that pipe would not be able to drain down by gravity alone. Because the terrain on this pipeline has a significant impact on the LDV calculation, the calculation may not be able to be exactly replicated without the same software, input parameters, elevation profile and modeling resolution.

## 14.3 Area Climate and Geography

### 14.3.1 Hydrographic and Climatological Conditions Overview

| Hydrographic and Climatological Overview |   |
|--|---|
| <b>Wind</b>                              | West Northwest 7 mph  |
| <b>Temperature</b>                       | The climate is normally warm and dry in the summer, and cool and wet in the winter months. The wet winter months generally range from October through April, with January & February typically bringing the largest amount of precipitation.  |
| <b>Rainfall</b>                          | Average rainfall for the Santa Barbara County area is 18.37"  |
| <b>Tides</b>                             | Tides affect nearshore currents. The tide in Santa Barbara Channel is a mixed semidiurnal type with a usual range of 1.5 to 2.0 meters. The peak tide time difference between the two ends of the channel is typically one hour with the tide proceeding westward. Expected tidal-induced currents are approximately ten centimeters per second in open portions of the Channel. Considerations between islands and regions near extensions of plan (Point Conception) accelerate tidal currents.   |
| <b>Marine Currents</b>                   | <p>There are four major currents off the California coast. The California Current, the major southeastward flow, extends from Washington and Oregon. Its mean speed is about 15 centimeters per second. This current is found at distances greater than about 120 kilometers off northern and central California, reached within a few kilometers of the shore at Point Conception, and generally flows outside the Southern California Bight. The Southern California Bight consists of 100,000 square miles of the Pacific Ocean between Point Conception and Cabo Colnett in Baja California (and extends west to the inner boundary of the California Current). The California Undercurrent is a subsurface, northward flow. Nearer shore and beneath the California Current are two northward-flowing currents:</p> <ul style="list-style-type: none"> <li>• Davidson Current (Speeds up to 15-30 centimeters per second), which flows north of Point Conception.</li> <li>• Southern California Countercurrent (Speeds up to 35-40 centimeters per second), which flows northward within the southern California Bight</li> </ul> <p>The strength of the currents vary seasonally and non-seasonally. Nearshore current varies along the coast in response to variations in coastline orientation, bottom topography, and tides. Because some of the Southern California Countercurrents turns southward at Point Conception, there is a general counterclockwise circulation in the Santa Barbara Channel with westward flow along the mainland and eastward flow along the northern shores of the Channel Islands. Current speeds generally range from 10-20 centimeters per second for the predominate flow.</p> |
| <b>Visibility</b>                        | Marine fog is common in the coastal locations of the pipeline. It is most abundant in the summer.   |

### 14.3.2 Physical Geographic Features

| Geographic Features           |  |
|-------------------------------|--|
| <b>Bathymetry</b>             | Not Applicable. The entirety of the pipeline is onshore, but a release from line sections of the CA-324 have the potential to impact the shoreline/marine environment.   |
| <b>Beach Type</b>             | Beach soils vary from sandy material to outcroppings of shale and sandstone.   |
| <b>Soil and Terrain</b>       | <p>Characteristic soils include Ayar and Conception along the terraces and Cortina in stream valleys. Sespe and Vaquero sandstones occur in narrow bands west of the Santa Ynez Fault. An Area of sand soil occurs near the southernmost boundary of the Los Padres National Forest.</p> <p>Normal erosion in existing waterways is evident. Construction along the pipeline alignment will not aggravate or increase the normal amount of erosion or runoff. Water drainage courses have been crossed by trenching across during times of minimal flow. The burial depth is a minimum of four feet below 100-year scour level. Channel and bank contours at major streams and river crossings were restored to preconstruction conditions upon completion of pipeline installation.</p> |
| <b>Transportation Hazards</b> | All major road crossings including US 101, State Highway 166, and all county roads have been made by boring under road and inserting a steel casing. The one exception to this is Refugio Road which was "Slick Bored" with no casing. Existing substructures such as phone cables, gas company lines, and water lines have been crossed in most cases by trenching underneath. The pipeline has been lowered enough in the immediate area of these facilities to maintain a minimum vertical separation of 12 inches.   |
| <b>Traffic Patterns</b>       | Existing public and private roads can be used for general access to the pipeline corridors. Normal access to the pipeline will take place as needed to test the cathodic protection system, maintain pipeline markers, and inspect mainline block valves. If repairs to the pipeline are necessary, access would occur along the ROW from the nearest existing road.   |

### 14.3.3 Seasonal Effects

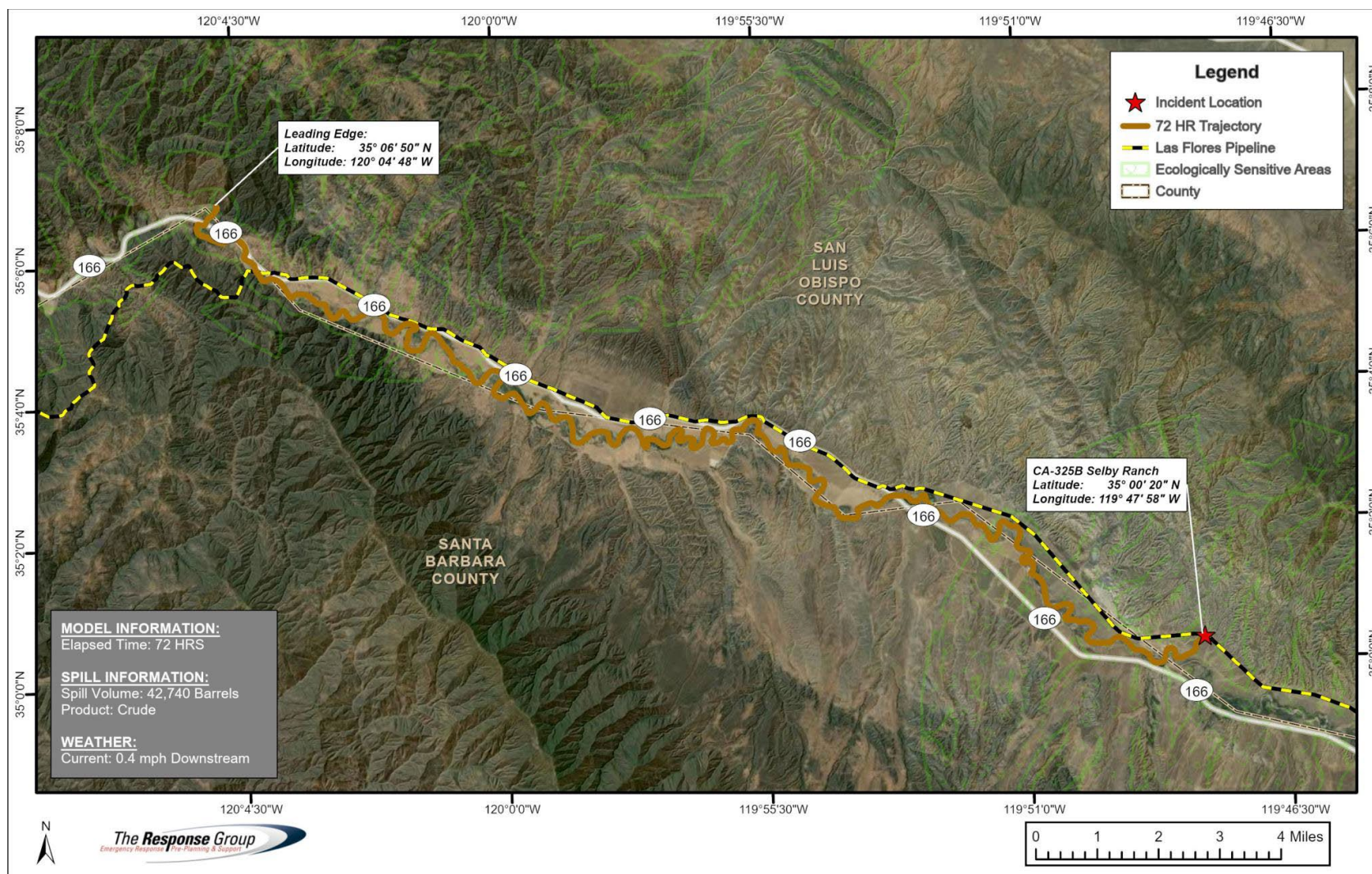
The primary seasonal effect on biological resources is whether the specific resource is present at the time of the spill. This is especially true of birds and mammals. Plants may be affected differently depending on the timing of the spill relative to the plant's growing season. In general, oiling during the dormant winter season has the lowest impact, whereas oiling of vegetation during the summer growing season has longer effects





## 14.4 Response Planning and Strategies Scenarios

### 14.4.1 72-Hr Trajectory





**14.4.2 Determination of Response Resources**
**Tables for Worst Case Discharge Response Resources Determination and Removal Capacity Planning**

| Spill Location<br>Sustainability of on-water oil<br>recovery | Rivers & Canals          |                                |                   | Nearshore/Inland/Great Lakes |                                |                   |
|--|--------------------------|--------------------------------|-------------------|------------------------------|--------------------------------|-------------------|
|  | <u>3 Days</u>            |                                |                   | <u>4 Days</u>                |                                |                   |
| <u>Oil Group</u>   | % Natural<br>Dissipation | %<br>Recovered<br>Floating Oil | % Oil<br>On Shore | % Natural<br>Dissipation     | %<br>Recovered<br>Floating Oil | % Oil<br>On Shore |
| 1. Non-persistent oils                                       | 80                       | 10                             | 10                | 80                           | 20                             | 10                |
| 2. Light crudes  | 40                       | 15                             | 45                | 50                           | 50                             | 30                |
| 3. Medium crudes and fuels                                   | 20                       | 15                             | 65                | 30                           | 50                             | 50                |
| 4. Heavy crudes and fuels                                    | 5                        | 20                             | 75                | 10                           | 50                             | 70                |

**Emulsion Factors**
**NON-PERSISTENT OIL**

Group 1 1.0

**PERSISTENT OIL**

Group 2 1.8

Group 3 2.0

Group 4 1.4

**Response Capability Caps (bbl./day) (Maximum Required Recovery Levels)**

| AREA              | TIER 1 | TIER 2 | TIER 3 |
|-------------------|--------|--------|--------|
| Rivers and Canals | 1,875  | 3,750  | 7,500  |
| Great Lakes       | 6,350  | 12,300 | 25,000 |
| Inland/Nearshore  | 12,500 | 25,000 | 50,000 |

**On-Water Oil Recovery Resource Mobilization Factors**

| AREA                         | TIER 1 | TIER 2 | TIER 3 |
|------------------------------|--------|--------|--------|
| River                        | .30    | .40    | .60    |
| Inland/Nearshore Great Lakes | .15    | .25    | .40    |

NOTE: These mobilization factors are for total resources mobilized not incremental response resources.

**RESPONSE TIME (hours)**

| AREA                    | TIER 1 | TIER 2 | TIER 3 |
|-------------------------|--------|--------|--------|
| Higher volume port area | 6      | 30     | 54     |
| All Other               | 12     | 36     | 60     |

| WCD / RWCS Resource Determination  |        |                   |        |
|--|--------|-------------------|--------|
| Location Data  |        |                   |        |
| Location Type  |        | Rivers and Canals |        |
| Port Type  |        | High Volume       |        |
| WCD Product Type   |        | Crude Oil         |        |
| Product Group  |        | 3                 |        |
| Worst Case Discharge – Based on RWCS criteria (bbl.)                         |        | 0                 |        |
| Selected Calculation Factors   |        |                   |        |
| Removal Capacity Planning Volume – Percent Natural Dissipation               |        | 30%               |        |
| Removal Capacity Planning Volume – Percent Recovered Floating Oil            |        | 50%               |        |
| Removal Capacity Planning Volume – Percent Oil Onshore                       |        | 50%               |        |
| Emulsification Factor  |        | 2.0               |        |
| Tier 1 – On Water Oil Recovery Resource Mobilization Factor                  |        | .15               |        |
| Tier 2 – On Water Oil Recovery Resource Mobilization Factor                  |        | .25               |        |
| Tier 3 – On Water Oil Recovery Resource Mobilization Factor                  |        | .40               |        |
| Response Planning Volume Calculation   |        |                   |        |
| Natural Dissipation  |        | 0                 |        |
| On-Water Recovery Volume (bbl.)  |        | 0                 |        |
| Shoreline Recovery Volume (bbl.)   |        | 0                 |        |
| Shoreline Cleanup Volume (bbl.)  |        | 0                 |        |
|  | Tier 1 | Tier 2            | Tier 3 |
| On-Water Recovery Capacity (bbl./day)  | 0      | 0                 | 0      |
| Shallow Water Resp Capability (20% of On-Water Recovery Capacity) (bbl./day) | 0      | 0                 | 0      |
| Storage Capacity (2x On-Water Recovery Capacity) (bbl./day)                  | 0      | 0                 | 0      |
| On-Water Response Caps (bbl./day)  | 12,500 | 25,000            | 50,000 |
| Response Time (hrs.)   | 6 hr.  | 30 hr.            | 54 hr. |

There may be times when it is necessary to move response equipment from one risk zone to another in order to respond to a catastrophic oil spill. However, the OSPR Administrator needs to ensure that sufficient response resources are available to address a reasonable risk within each zone. Therefore, when equipment is needed from one risk zone which may impact the plan holder's on-water containment and recovery at the 6-hour level, the plan holder or OSRO shall make a request to the OSPR Administrator to temporarily reduce the Response Capability Standards, before the equipment can be moved. The Administrator shall only grant such a request after determining that sufficient response resources are available to address a reasonable risk within the zone from where the response equipment is being considered for removal.

#### 14.4.3 Shoreline Clean-up Matrix

| CDFW-OSPR Shoreline Cleanup Matrix   |  |  |                              |  |   |   |   |   |   |   |   |    |
|--|--|--|------------------------------|--|---|---|---|---|---|---|---|----|
| Cleanup Technique Shoreline <sup>2</sup>   |  |  | Shoreline Types <sup>1</sup> |  |   |   |   |   |   |   |   |    |
|  |  |  | 1                            | 2  | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1.   | No Action                                    |  | P                            | P  | X | X | X | X | A | X | A | A  |
| 2.   | Manual Debris Removal                        |  | P                            | A  | R | R | R | R | P | R | P | P  |
| 3.   | Passive Collection (sorbents)                |  | R                            | R  | R | R | R | R | R | R | R | R  |
| 4.   | Debris Removal with Heavy Equipment          |  | X                            | X  | A | A | A | P | X | A | X | A  |
| 5.   | Trenching (recovery wells)                   |  | X                            | X  | P | P | P | P | X | X | X | X  |
| 6.   | Sediment Removal                             |  | X                            | X  | A | P | P | P | X | X | X | X  |
| 7.   | Cold Water Flooding (deluge)                 |  | A                            | A  | A | A | A | A | A | A | A | A  |
| 8.   | Cold Water Washing                           |  | X                            | X  | X | X | X | X | X | X | X | X  |
|  | a.   | Low Pressure (<50 psi)   | A                            | A  | X | P | P | A | X | A | X | P  |
|  | b.   | High Pressure (50-100 psi)   | A                            | X  | X | P | P | A | X | X | X | X  |
| 9.   | Warm Water Washing (ambient to 90°F)         |  | A                            | A  | X | P | P | A | X | A | X | X  |
| 10.  | Hot Water Pressure Washing (>90°F)           |  | A                            | X  | X | X | X | P | X | X | X | X  |
| 11.  | Slurry Sand Blasting                         |  | A                            | X  | X | X | X | P | X | X | X | X  |
| 12.  | Vacuum                                       |  | A                            | A  | A | A | A | A | A | A | A | A  |
| 13.  | Cutting Vegetation <sup>3</sup>              |  | X                            | X  | X | X | X | X | X | P | X | P  |
| 14.  | Chemical Treatment <sup>4</sup>              |  | X                            | X  | X | X | X | X | X | X | X | X  |
|  | a.   | Oil Stabilization  | X                            | X  | P | P | P | X | P | X | X | X  |
|  | b.   | Protection of Beaches  | X                            | P  | P | P | P | P | X | P | X | X  |
|  | c.   | Cleaning of Beaches  | X                            | P  | P | P | P | P | X | P | X | X  |
| 15.  | Burning <sup>4</sup>                         |  | A                            | A  | A | A | A | P | X | X | X | P  |
| 16.  | Nutrient Enhancement                         |  | X                            | X  | A | A | A | X | P | A | A | P  |
| 17.  | Microbial Addition <sup>4</sup>              |  | X                            | X  | A | A | A | X | P | A | A | P  |
| 18.  | Sediment Reworking <sup>4</sup>              |  | X                            | X  | A | P | P | P | X | X | X | X  |
| 19.  | Shore Removal and Replacement <sup>4</sup>   |  | X                            | X  | P | P | P | X | X | X | X | X  |
| Key  |  |  |                              |  |   |   |   |   |   |   |   |    |
| <sup>1</sup> Shoreline Types   |  |  |                              |  |   |   |   |   |   |   |   |    |
| 1  | Exposed Wave-cut Cliffs, Seawalls, and Piers |  | 6                            | Gravel Beaches and Rip-rap Structures                    |   |   |   |   |   |   |   |    |
| 2  | Exposed Wave-cut Platforms                   |  | 7                            | Exposed Tidal Flats                                      |   |   |   |   |   |   |   |    |
| 3  | Fine to Medium-grained Sand Beaches          |  | 8                            | Sheltered Rocky Shores and Sheltered Man-made Structures |   |   |   |   |   |   |   |    |
| 4  | Coarse-grained Sand to Gravel Beaches        |  | 9                            | Sheltered Tidal Flats                                    |   |   |   |   |   |   |   |    |
| 5  | Mixed Sand and Gravel (or Shell) Beaches     |  | 10                           | Salt Marshes   |   |   |   |   |   |   |   |    |
| <sup>2</sup> Shoreline Technique Recommendations:  |  |  |                              |  |   |   |   |   |   |   |   |    |
| R (Recommended)  |  | Is Preferred alternative. Method which best achieves the goal of minimizing destruction or injury to the environment |                              |  |   |   |   |   |   |   |   |    |
| A (Applicable)   |  | Variable and possibly useful but may result in limited adverse effects to environment                                |                              |  |   |   |   |   |   |   |   |    |
| P (Possible)   |  | Effectiveness and possible harm to environment would have to be carefully evaluated                                  |                              |  |   |   |   |   |   |   |   |    |
| X  |  | Do Not Use   |                              |  |   |   |   |   |   |   |   |    |
| <sup>3</sup> Cutting will depend upon time of year. Consider only if re-oiling of birds possible.      |  |  |                              |  |   |   |   |   |   |   |   |    |
| <sup>4</sup> Requires State approval for all cases. RRT approval also required for federalized spills. |  |  |                              |  |   |   |   |   |   |   |   |    |

#### 14.4.4 General Protection and Containment Techniques

| General Protection and Containment Techniques |  |  |  |  |
|---|--|--|--|--|
| Technique <sup>1</sup>                        | Description  | Primary Logistical Requirements  | Use Limitations <sup>2</sup>   | Potential Environmental Effects  |
| <b>Spills on Land</b>                         |  |  |  |  |
| <b>A. Containment / Diversion Berms</b>       | Construct earthen berms ahead of advancing surface spill to contain spill or divert it to a containment area.  | <u>Equipment*</u><br>1 backhoe, bulldozer, front-end loader, or set of hand tools<br><u>Personnel</u><br>4-8 Workers                           | <ul style="list-style-type: none"> <li>Steep Slopes</li> <li>Porous substrate</li> </ul>                                 | <ul style="list-style-type: none"> <li>Disturbance to surface soils and vegetation</li> <li>Increased oil penetration</li> </ul> |
| <b>B. Storm Drain Blocking</b>                | Block drain opening with sediments, plastic sheet, boards, etc. and secure prevent oil from entering drain.  | <u>Equipment*</u><br>Misc. hand tools, 1 board, plastic sheet, mat, etc.<br><u>Personnel</u><br>1-2 Workers                                    | <ul style="list-style-type: none"> <li>Maybe advantageous for oil to enter drain</li> <li>Heavy precipitation</li> </ul> | <ul style="list-style-type: none"> <li>Increased oil penetration</li> <li>Oil can spread to other areas</li> </ul>               |
| <b>C. Blocking Dams</b>                       | Construct dam in drainage course/stream bed to block and contain flowing oil. Cover with plastic sheeting. If water is flowing, install inclined pipes during dam construction to pass water underneath. | <u>Equipment*</u><br>1 backhoe, bulldozer, front-end loader, or set of hand tools, 1 plastic sheeting roll.<br><u>Personnel</u><br>4-6 Workers | <ul style="list-style-type: none"> <li>Upstream storage capacity</li> <li>Flowing water</li> </ul>                       | <ul style="list-style-type: none"> <li>Increased oil penetration</li> </ul>  |
| <b>D. Culvert Blocking</b>                    | Block culvert opening with plywood, sediments, sandbags, etc. to prevent oil from entering culvert   | <u>Equipment*</u><br>Misc. hand tools, misc. plywood, sandbags, etc.<br><u>Personnel</u><br>3-4 Workers  | <ul style="list-style-type: none"> <li>Upstream storage capacity</li> <li>Flowing water</li> </ul>                       | <ul style="list-style-type: none"> <li>Increased oil penetration</li> </ul>  |



### General Protection and Containment Techniques

| Technique <sup>1</sup>                       | Description   | Primary Logistical Requirements  | Use Limitations <sup>2</sup>   | Potential Environmental Effects   |
|--|---|--|--|---|
| <b>E. Interception Trench</b>                | Excavate ahead of advancing surface/ near-surface spill to contain oil. Cover bottom and downgradient side with plastic.  | <u>Equipment*</u><br>1 backhoe or set of hand, tools, misc. plastic sheeting<br><u>Personnel</u><br>3-6 Workers                              | <ul style="list-style-type: none"> <li>Slope</li> <li>Depth to near-surface flow</li> </ul>  | <ul style="list-style-type: none"> <li>Increased oil penetration</li> <li>Disturbance to surface soils and vegetation</li> </ul>                          |
| <b>Spills on Water</b>                       |   |  |  |   |
| <b>F. Diversion Booming</b>                  | Boom is deployed from the shoreline at an angle towards the approaching slick and anchored or held in place with a work boat. Oil is diverted towards the shoreline for recovery. | <u>Equipment*</u><br>1 boat, 3 anchor systems (min), 100 feet boom (min)<br><u>Personnel</u><br>3 workers plus boat crew                     | <ul style="list-style-type: none"> <li>Currents &gt;2-3 kts</li> <li>Waves &gt; 1-2 ft</li> <li>Water depth &gt;50 feet (anchoring)</li> <li>Sensitive shorelines</li> </ul> | <ul style="list-style-type: none"> <li>Minor substrate disturbance at anchor points</li> <li>Heavy oiling at shoreline anchor point</li> </ul>            |
| <b>G. Narrow Channel Containment Booming</b> | Boom is deployed across entire river channel at an angle to contain floating oil passing through channel.   | <u>Equipment*</u><br>1 boat, vehicle, or winch; 1-2 booms (1.2 x channel width each); 2-10 anchor systems<br><u>Personnel</u><br>2-3 Workers | <ul style="list-style-type: none"> <li>Currents &gt;2-3 kts</li> <li>Water depth &gt;50 feet (anchoring)</li> <li>Sensitive shorelines</li> </ul>                            | <ul style="list-style-type: none"> <li>Minor substrate disturbance at anchor points</li> <li>Heavy shoreline oiling at downstream anchor point</li> </ul> |





### General Protection and Containment Techniques

| Technique <sup>1</sup>       | Description   | Primary Logistical Requirements  | Use Limitations <sup>2</sup>   | Potential Environmental Effects   |
|------------------------------|---|--|--|---|
| <b>H. Sorbent Barriers</b>   | A barrier is constructed by installing two parallel lines of stakes across a channel, fastening wire mesh to the stakes, and filling the space between with sorbents. | <u>Equipment*</u><br>(per 100 ft of barrier): misc. hand tools, 1 boat, 20 fence posts, 200 ft wire mesh, 200 ft <sup>2</sup> sorbents, misc. fasteners, support lines, additional stakes, etc.<br><u>Personnel</u><br>2-3 Workers | <ul style="list-style-type: none"> <li>• Water depths &gt;5-10 feet</li> <li>• Currents &gt;0.5 kts</li> <li>• Soft substrate</li> </ul>                                       | <ul style="list-style-type: none"> <li>• Minor substrate disturbance at post and shoreline anchor points</li> <li>• High substrate disturbance if boat is not used</li> </ul> |
| <b>I. Exclusion Booming</b>  | Boom is deployed across or around sensitive areas and anchored in place. Approaching oil is excluded from area.   | <u>Equipment*</u><br>(per 500 ft of boom): 1 boat, 6 anchor systems, 750 ft boom (min) <u>Personnel</u><br>3 workers plus boat crew  | <ul style="list-style-type: none"> <li>• Currents &gt;1-2 kts</li> <li>• Waves &gt;1-2 feet</li> <li>• Water depth &gt;50 feet (anchoring)</li> </ul>                          | <ul style="list-style-type: none"> <li>• Minor substrate disturbance at anchor points</li> </ul>  |
| <b>J. Deflection Booming</b> | Boom is deployed from the shoreline away from the approaching slick and anchored or held in place with a work boat. Oil is deflected away from shoreline.             | <u>Equipment*</u><br>1 boat, 5 anchor systems, boom (200 feet) <u>Personnel</u><br>3 workers plus boat crew  | <ul style="list-style-type: none"> <li>• Currents &gt;2-3 kts</li> <li>• Waves &gt;1-2 feet</li> <li>• Water depth &gt;50 feet (anchoring)</li> <li>• Onshore winds</li> </ul> | <ul style="list-style-type: none"> <li>• Minor substrate disturbance at anchor points</li> <li>• Oil is not contained and may contact other shorelines</li> </ul>             |



#### General Protection and Containment Techniques

| Technique <sup>1</sup>                             | Description   | Primary Logistical Requirements  | Use Limitations <sup>2</sup>   | Potential Environmental Effects   |
|--|---|--|--|---|
| <b>K. Inlet Dams</b>                               | A dam is constructed across the inlet or channel using local shoreline sediments to prevent oil from entering inlet. Dam can be covered with plastic to minimize erosion. | <u>Equipment*</u><br>1 backhoe, bulldozer, front-end loader, or set of hand tools, 1 plastic sheeting roll<br><u>Personnel</u> 2-6 workers   | <ul style="list-style-type: none"> <li>Water outflow</li> <li>Inlet depth &gt;5 feet</li> <li>Excessive inlet width</li> </ul>     | <ul style="list-style-type: none"> <li>Sediment/vegetation disturbance at borrow areas</li> <li>Inlet substrate disturbance</li> <li>Increases suspended sediments</li> <li>Water in inlet can become stagnant</li> </ul> |
| <b>L. Debris / Ice Exclusion</b>                   | Install fence barrier upstream of containment site to exclude debris/ice  | <u>Equipment*</u><br>(per 100 ft of barrier): misc. hand tools, 1 boat, 10 fence posts, 100 feet cyclone fence, misc. fasteners, support lines, etc.<br><u>Personnel</u> 2-3 workers | <ul style="list-style-type: none"> <li>Water depth &gt;5- 10 feet</li> <li>Currents &gt;3-4 kts</li> <li>Soft substrate</li> </ul> | <ul style="list-style-type: none"> <li>Minor substrate disturbance at post and anchor points</li> </ul>   |
| <b>Releases of LPG/HVL/Gases to the Atmosphere</b> |   |  |  |   |
| <b>M. Controlled burn</b>                          | Allow the material to consume itself in a safe and controlled manner. If flammable material is not burning may want to consider a <b>controlled ignition</b> .            | <u>Equipment</u> * Flares/torches<br><u>Personnel</u><br>A trained ignitor from a safe distance  | <ul style="list-style-type: none"> <li>Managing the fire and heat</li> <li>Damaging force of ignition</li> </ul>                   | <ul style="list-style-type: none"> <li>Damages of fire and heat on exposures</li> </ul>   |



### General Protection and Containment Techniques

| Technique <sup>1</sup>              | Description  | Primary Logistical Requirements   | Use Limitations <sup>2</sup>   | Potential Environmental Effects   |
|-------------------------------------|--|---|--|---|
| <b>N. Vapor Suppression</b>         | Apply water spray/fog over the released liquid to reduce the formation of vapors.  | <u>Equipment *</u><br>Fire truck (water pumper) Foam generator unit Foam tanker or trailer<br><u>Personnel</u><br>1 operational crew per unit | <ul style="list-style-type: none"> <li>Limited reductions</li> <li>Fire/explosive hazard.</li> <li>Water may cause material to spread</li> </ul> | <ul style="list-style-type: none"> <li>Temporary flooding</li> <li>Minor disturbance to surface soils and vegetation</li> </ul> |
| <b>O. Dissipation or dispersion</b> | Apply a medium (air/gas/chemical) to disperse, dissolve, diffuse or in any way dissipate the density of the released material. | <u>Equipment *</u><br>Fans/blowers/air movers<br>Nitrogen generator trucks<br><u>Personnel</u><br>1 operational crew per unit                 | <ul style="list-style-type: none"> <li>Minimal effectiveness</li> <li>Fire/explosive hazard.</li> </ul>  | --  |

**NOTES 1.0:** Techniques A through I appeared on Table 5.5-1 in Volume 1 as appropriate techniques for containment and recovery. These techniques have been assigned the same letter designation as Table 5.5-1 for consistency. 20 In addition to implementation time and accessibility.

\* Need to establish a safe perimeter and follow safety precautions as appropriate before work begins, i.e., TGSM, JSA, and Hot Work Permit procedures.

**14.4.5 Tactical Strategies for Initial Response**

Tactical response strategies have been developed for the entire Las Flores Pipeline corridor have been developed and are contained in the Las Flores Tactical Response Plan. The following maps contain the response information for the areas projected to be impacted by the RWCS / 72-Hr Trajectory.

The following maps are the portion of the Las Flores Pipeline System Tactical Response Plan that covers the RWCS / 72-Hr Trajectory area. For pre-planned response tactics for the entire pipeline system please refer to the Las Flores Pipeline System Tactical Plan.

## 14.5 General Toxicity Effects and Persistence

### 14.5.1 Environmental Toxicity

In general, oil can be toxic to biological resources. Oil contamination of intertidal areas, waterfowl, and fur-bearing mammals can be severe.

#### Potential Toxicity to Biological Resources

|                               |  |
|-------------------------------|--|
| <b>Wildlife</b>               | <p>Wildlife is susceptible to significant injury and mortality from contact with oil spills. In general, the degree of sensitivity to oil spills is based on habitat location and behavioral characteristics. For example, most waterfowl and shorebirds, particularly diving birds, are very sensitive to oil spills due to their extensive use of the water, whereas terrestrial birds may nest near the water but have a low sensitivity to oil spills if they do not frequent shoreline areas. Similarly, animals that frequent coastal areas may be impacted by oil spills if they feed on vegetation or dead animals along the shoreline that could become oiled.</p> <p>Wildlife impacts may result from the physical effects of the oil on their fur or feathers or through ingestion during preening or scavenging. Selected marine mammals (e.g., sea otters and fur seals) and birds (primarily waterfowl) rely on their fur or feathers for insulation and buoyancy, which can be adversely affected if they become oiled. Significantly oiled sea otters, fur seals, or birds can perish from hypothermia and exhaustion or may become sick from ingestion of the oil while preening. The effects of ingestion vary depending on the toxicity of the oil. In general, the lighter the crude oil or petroleum product, the more toxic it is to wildlife.</p> |
| <b>Finfish and Shellfish</b>  | <p>The sensitivity of various fish species to oil spills typically depends on their growth stage (juveniles are much more sensitive than adults), their feeding or migration habits, and oil type. Species that frequent shallow or near-surface areas will often be exposed to higher concentrations of dissolved hydrocarbons than those that reside primarily in deeper waters. Lighter crude oils and refined petroleum products have a greater impact on fish than heavier oils due to their generally greater solubility and higher concentrations of toxic components.</p>  |
| <b>Kelp and Eelgrass Beds</b> | <p>Kelp and eelgrass beds are valuable habitats for numerous finfish and shellfish. Eelgrass is much less abundant than kelp but is used as spawning grounds for some fish and as an important sanctuary for several planktonic organisms. Eelgrass is very susceptible to the toxic and physical effects of oil spills. Kelp beds also serve as habitats and sanctuaries for several finfish, shellfish, and other marine organisms but are less susceptible to the effects of oil spills. Kelp fronds and blades are covered with mucus that inhibits the oil from sticking although a kelp forest canopy can trap substantial quantities of oil, resulting in the mortality of many organisms inhabiting the canopy. The effect of the oil is generally short term due to kelp's rapid growth rate.</p>   |



**14.5.2 Oil Persistence**

In general, the longer the oil is expected to persist on a shoreline, the higher the priority for protection. Long-term oil persistence can present chronic toxicity effects as well as affecting the natural sediment erosional and depositional processes.

**Potential Persistence or Residence Time of Stranded Oil on A Shoreline Factors**

|   |                                   |
|---|-----------------------------------|
| ✓ | Degree of impact                  |
| ✓ | Type of shoreline sediments       |
| ✓ | Level of exposure to the elements |

In general, higher degrees of impact, coarser, well-sorted sediments, and lower levels of exposure to wind, waves, currents, and tidal flushing will increase the residence time of the oil on the shoreline. Coarser grain sediments usually permit the oil to penetrate deeper into the shoreline but can also allow for greater tidal flushing and natural degradation. Finer grained sediments typically inhibit penetration but if oil does become incorporated into the sediments, residence time will increase.

Lower levels of exposure, such as in protected inlets of bays, will increase the residence time due to the decreased natural abrasion caused by sediment movements and flushing action by wind, waves, and tides. Protected areas may also be shaded and calm, which could inhibit evaporation and photo-oxidation.

**14.4.5.3 Emergency Response Guidebook**

The following response guidelines are based on emergency response procedures in the *2016 Emergency Response Guidebook* (ERG2016), which were developed jointly by the U.S. Department of Transportation, Transport Canada, and the Secretariat of Transport and Communications of Mexico.

**POTENTIAL HAZARDS****FIRE OR EXPLOSION**

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED**

**EXTREMELY FLAMMABLE**

- Will be easily ignited by heat, sparks, or flames.
- Will form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along the ground.
- Vapors may travel to a source of ignition and flash back.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

**HEALTH**

- Vapors may cause dizziness or asphyxiation without warning.
- Some may be irritating if inhaled at high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.

**PUBLIC SAFETY**

**CALL Emergency Response Telephone Number on Shipping Paper or Pipeline sign first. If Shipping Paper is not available or no answer, refer to the appropriate telephone number listed on the inside back cover.**

- Isolate spill or leak area immediately for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.

**PROTECTIVE CLOTHING**

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

**LARGE SPILL**

Consider initial downwind evacuation for at least 800 meters (1/2 mile).

**FIRE**

If tank, rail car or tank truck is involved in a fire ISOLATE for 1600 meters (1 mile) in all directions; also consider initial evacuation for 1600 meters (1 mile) in all directions.

**EMERGENCY RESPONSE FOR FIRES****FIRE**

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

**SMALL FIRES**

- Dry chemical or CO<sub>2</sub>.

**LARGE FIRES**

- Water spray or fog.
- Move containers from fire area if you can do it without risk.

**FIRE INVOLVING TANKS**

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn.

**SPILL OR LEAK**

- ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in the immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapor or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Prevent spreading of vapor through sewers, ventilation systems and confined areas.
  - Isolate area until gas has dispersed.
- Isolate area until gas has dispersed.

**CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.**

**FIRST AID**

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**14.5.3.1 Critical Safety Considerations to Be Evaluated****Critical Safety Considerations To Be Evaluated**

- Potential for multiple hazards
- Risk of pipe/container failure
- Vulnerability to external heating
- Requirements for adequate water supply
- Risks from secondary exposures
- Risks from pressure-fed fires
- Risks from low lying areas or confined spaces
- Protective clothing and equipment requirements

**Hazard and Risk Evaluation**

- Hazard and risk assessment is a definitive step taken by the Incident Commander to identify the hazards involved in the incident and evaluate the potential risks of each tactical option being considered.
- Hazard and risk assessment should be an on-going process used by the Incident Commander along the entire timeline of the incident.
- It begins upon arrival at the emergency scene and continues along the incident timeline until the problem has been safely resolved and the incident is terminated.

**Hazard Assessment**

- The “hazard” side of the evaluation focuses on the materials known physical and chemical characteristics.

**Risk Assessment**

- “Risk” refers to the probability of suffering harm or loss. Risks are dynamic and can change from one incident to the next.

**Sizing-Up Risks**

- Time the incident started
- Time responders arrived on-scene.
- Layout of the incident:
- Size and type of container involved
- Nature of the stress (e.g., Thermal vs. Mechanical)
- Type of container breach
- Types of pressure relief devices present.
- Valves and control points being stressed or destroyed by the fire.
- Presence of any fixed or semi-fixed fire protection systems
- Identify and prioritize exposures.
- Size and type of area being affected by the liquid release or fire
- Resources available to combat the problem.

**14.5.3.2 Emergency Response Operational Modes****Offensive Mode Operations**

- Commits resources to aggressive leak and fire control objectives.
- Designed to quickly control or mitigate the problem.
- Can increase the risk to emergency responder.
- Unless:
- Rescue operations can be quickly achieved.
- The leak can be rapidly confined or contained.
- The fire can be quickly extinguished.

**Defensive-Mode Operations**

- Commit Resources to less aggressive objectives.
- A defensive strategic goal/tactical objective is achieved by using specific types of defensive tactics.
- Some examples of defensive modes:
- Evacuations of effected areas.
- Cooling facilities with unmanned fire monitors.

**Non-Intervention Mode**

- Non-intervention means taking no action other than isolating the area.
- Emergency responders wait out the sequence of events.
- Usually produces the best outcome when offensive or defensive strategic goals will place responders at an unacceptable risk.
- Potential costs of action far exceed any benefits.



**14.5.3.3 Emergency Response Process Steps****Eight Step Process**

1. Site management and control
2. Identify the problem
3. Evaluate the hazards and risks
4. Select the proper protective clothing
5. Develop plan of action and coordinate resources
6. Implement response objectives
7. Decontamination and clean-up operations
8. Terminate the emergency

**Step 1 - Site Management**

Upon arrival at the scene of the emergency

- Determine the extent of the hazard area.
- Establish a security perimeter.
- Designate hazard control zones
- Assume command and control of the incident in accordance with ICS

**Special Care Should Be Used When Positioning Emergency Vehicles**

- Park well outside of the area of greatest risk.
- Control ignition sources immediately.
- Incident Commander should size-up to determine if immediate rescue of workers/public is required.
- Escape route out of the hazard area should be identified.

**Access To the Emergency Site Should Be Restricted**

- Designate hazard control zones around the emergency scene.
- Restricted areas should be communicated to all personnel.
- Establish a staging area and appoint a staging officer.

**Step 2 - Identify the Problem**

- Identify, confirm, and verify the type of hazardous material(s) involved in the release.
- What type of flammable liquid?
- Type and quantity of vessel/pipeline/equipment involved.
- Write down all information obtained.
- Verify the source and accuracy of all information.

**Do not permit entry into the hazard area without the appropriate level of PPE and self-contained breathing apparatus (SCBA) until the problem has been identified. Never permit response personnel to perform activities such as leak control inside areas where un-ignited flammable vapor has accumulated.**

**Step 3 - Evaluate the Hazards and Risks**

Evaluate the health and safety hazards of the products.

- A. Other hazardous materials involved?
- B. Physical and chemical characteristics?
- C. Environmental conditions?
- D. Monitor the emergency scene to determine the concentrations of vapor present.

**Caution: Personnel Taking Air Samples Should Use Proper Personal Protective Equipment.**

- E. Compare the resources available vs. the level required to effectively handle the problem.
- F. Modifications to the suggested size and perimeters of the hazard control zones may be required.
- G. Based upon the results of the site characterization, determine the manner in which the incident should be handled.

**Factors Which May Influence The Level Of Risk Include:**

- Presence of ignition sources.
- Type of hazardous material(s) released and their properties (e.g., Flammability, toxicity, and reactivity).
- Amount of product released and total surface area or volume.
- Type of equipment and stressors such as thermal, chemical, and mechanical that may affect the integrity of the container.
- Probability that the fire/release will be confined to its present size.
- Proximity of exposures.
- Weather conditions.
- Level of available resources to safely mitigate the problem, and their approximate response time.
- Availability of cooling water in sufficient quantities to prevent equipment failure.
  - If an adequate water supply is not available for protecting exposures or controlling the spill, Incident Commander should consider implementing defensive or non-intervention tactics until adequate resources are available and personnel are properly protected.

**Step 4 - Select Proper Protective Clothing**

- Selection of the proper type and level of personal protective clothing and equipment depend upon:
  - The hazards and properties of the material(s) involved in the emergency.
  - Response objectives to be implemented.

**Step 5 - Develop Plan of Action and Coordinate Resources**

- A. Verify that hazard control zones have been established and that this information has been communicated to all on-scene personnel.
  - Special attention should be given to operators, maintenance personnel, and contractors who may be supporting the emergency response operation.
  - Do not permit unprotected personnel to enter the hazard area.
- B. Ensure that all internal and external notifications have been made.
- C. Coordinate all plans for controlling the emergency with the FOSC, SOSC, and LOSC to assure that a coordinated plan of action is safely implemented.
- D. Coordinate information and provide briefings to federal, state, and local governmental authorities.
- E. Protect exposures at the emergency scene.
  - Anticipate accidental ignition of flammable gas.
  - Exposures should be evaluated and prioritized so that water supplies and emergency response teams are conserved and used correctly.
  - Exposures should be prioritized as:
    - **Primary exposures**
    - **Secondary exposures**
    - **Tertiary exposures**
- F. Incident Commander should develop a water supply plan.
- G. The water supply sector should ensure that fire pumps are operating (at fixed facilities) and that an uninterrupted water supply can be delivered for the duration of the emergency.
- H. Incident Commander should assure that all officers within the incident management system have been briefed on their division/group role in mitigating the emergency.

**Step 6 - Implement Response Objectives**

- A. The Incident Commander should determine whether the emergency can be handled using:
  - Offensive tactics
  - Defensive tactics
  - Non-intervention tactics
- B. Evaluate the risks before entering the hazard area to conduct operations in the hot zone. Rapidly changing conditions must be considered an extremely hazardous situation and subsequent approach carefully considered.

**Offensive Tactics**

- Increase the risks to emergency responders.
- May be justified at a facility emergency if:
  - Rescue/extrication of trapped or injured workers/public is necessary and can be achieved with minimal risk to emergency responders.

**Defensive Tactics**

- Decrease the risk to emergency responders.
- May be employed at an emergency such as a facility fire.
- Isolating the source of fuel to the fire by remotely closing valves
- Shutting down pumps.

**Defensive tactics are always desirable over offensive tactics if accomplishing the same objectives.**

**Non-intervention Tactics**

- Significantly Decrease Risk to Emergency Responder.
- All Responders and Employees Are Withdrawn to a Remote and Safe Location.
- Unmanned Monitors and Fixed Water Spray Systems Are Used to Protect Exposures.
- Fires Are Allowed to Burn and the Risk of Container Failure Has Passed.

**Before Initiating Operations**

- Ensure that properly equipped back-up personnel wearing the appropriate level of personal protective clothing are in-place.
- Verify that entry teams have been briefed prior to being allowed to enter the hot zone.
- Coordinate operations with the site safety officer using a site safety and health plan.

**For Hazardous Materials Emergencies, Safety Issues Should Include the Following:**

- Objectives of the entry operation.
- Radio communications, SCBA and PPE checks.
- Emergency procedures, including the emergency escape signal.
- Determine if decontamination will be required after entry operations are completed. Assure that the decontamination area is set up and ready.

**CAUTION:**

- Do not enter the hazard area unless properly trained and equipped for the hazard(s) present and for the specific task(s) to be performed.
- If possible, remotely isolate the source of the release.
- Prevent possible ignition of the escaping material.

**Firefighting Operations Should:**

- Protect primary and secondary exposures to the fire.
- Isolate the flammable liquid source feeding the fire.
- Control and extinguish secondary fires.
- Cool containers.

**Step 7 - Decontamination and Clean-up Operations**

- A. The Incident Commander should establish a decon area to ensure that all responders are properly decontaminated.
- B. Maintain respiratory protection until contaminated protective clothing is removed or decontaminated.
- C. Protective clothing must be rinsed with water or decon solutions to remove any residual hazardous liquids.

**Step 8 - Terminate the Emergency**

- A. The incident commander should terminate the emergency phase of the incident when:
  - All direct threats to the health and safety of the public and facility personnel are removed.
  - Although operational safety and health hazards may remain, the problem(s) which initially created the emergency have been brought under control or isolated.
- B. The Incident Commander should account for all responders before securing site operations.
  - The names and telephone numbers of each person who may have been exposed to hazardous materials involved in the emergency should be obtained and formally documented.
  - Determine if medical surveillance is required for these individuals.
- C. Before leaving the scene of the emergency, the Incident Commander should assure:
  - That all equipment and supplies used during the incident have been accounted for and that damaged equipment has been identified.
  - All emergency equipment should be re-serviced, inspected and returned to proper locations.
  - Any damaged equipment should be marked as being "out of service".
- D. Conduct an incident debriefing session for all personnel involved in the emergency.
  - As a general rule, critiques of emergency response operations should be scheduled within two weeks of the emergency so that lessons learned may be discussed and documented.
  - Prepare and submit the required critique documentation to Sable Offshore Corp. Las Flores Pipeline Qualified Individual Jeff Patterson.



## 14.6 Use of Alternative Response Technologies in California

Sable Offshore Corp. will utilize Special Monitoring of Applied Response Technologies (SMART) protocols for monitoring all uses of alternative response technologies. Monitoring teams will observe and collect data on effectiveness and environmental consequences of applied methods for a period of three days after initial application and then periodic monitoring thereafter.

The use of Alternative Response Technologies will be considered from a Net Environmental Benefit/Spill Impact Mitigation perspective, i.e., the impact from their use should be weighed against the impact of untreated oil stranding in potentially sensitive environments.

### 14.6.1 Dispersant Use

The LA/LB Area Contingency Plan, Section 3260, provides a brief discussion on the use of dispersants, and refers to the Regional Contingency Plan (RCP), Appendix XII, which is maintained and hosted by the CDFW Office of Spill Prevention and Response at: <https://wildlife.ca.gov/OSPR/Contingency>

The RCP contains the California Dispersant Plan which provides policies and guidelines to allow the federally pre-designated U.S. Coast Guard (USCG) Federal On-Scene Coordinator (FOSC) and/or the Unified Command to use dispersants in a timely manner to 1) prevent or substantially reduce a hazard to human life; 2) minimize the adverse environmental impact of the spilled oil; and 3) reduce or eliminate the economic or aesthetic losses of recreational areas.

Only dispersants and chemicals accepted by the U.S. EPA and the CDFW (representing the State of California) shall be used. The application and use of oil spill cleanup agents in California shall comply with Article Three (Sections 2332 through 2336) of California Code of Regulation, Title 23.

#### 14.6.1.1 Methods of Deployment

Open water with sufficient depth and volume for mixing and dilution and fresh oil are the preferred conditions for dispersant application. As the oil is subjected to heat, sunlight, and water, it generally goes through a variety of changes that are the result of the process known as “weathering.” In general, the results of weathering lead to an increase in viscosity of the oil as the lighter hydrocarbon components are lost and the effectiveness of dispersant applications may be reduced. As a result, it is important that the initial dispersant application should be completed as soon as possible, usually within the first 48-72 hours. Dispersants are an important oil spill response option and should always be considered from a Net Environmental Benefit perspective, i.e., the impact from their use should be weighed against the impact of untreated oil stranding in potentially sensitive environments.

There are three primary methods of applying dispersants to an oil spill. These methods involve the use of airplanes and helicopters for aerial application, the use of boats for on-water application and subsea injection at a leaking wellhead. Due to the nature of the Las Flores Pipeline, Subsea dispersant use is not likely a viable response option and is not discussed further in this plan. Additional information on Subsea dispersant use can be found in the SYU Pacific Oil Spill Response Plan. A discussion of aerial and marine application and information on the rates of application follows.

**Aerial Dispersant Application**

Aerial application is one method pre-approved by the Regional Response Team (RRT). This method involves the application of dispersants from an airplane, and typically involves the use of a C-130, Boeing 737 or BE-90 King Air directed by a spotter plane. The C-130 and the C-130 with ADDS pack have capacities of 3,250 and 5,000 gallons respectively. Aerial application can be hindered by poor weather (rain, fog, etc.).

While aerial application can be extremely effective, it can be limited by poor weather conditions (e.g., rain and fog) and it is only allowed during daylight hours. The typical application rate target is 5 gallons per acre.

**Marine Dispersant Application**

Aerial application is one method pre-approved by the Regional Response Team (RRT). This method involves the application of dispersants from an airplane, and typically involves the use of a C-130, Boeing 737 or BE-90 King Air directed by a spotter plane. The C-130 and the C-130 with ADDS pack have capacities of 3,250 and 5,000 gallons respectively. Aerial application can be hindered by poor weather (rain, fog, etc.).

While aerial application can be extremely effective, it can be limited by poor weather conditions (e.g., rain and fog) and it is only allowed during daylight hours. The typical application rate target is 5 gallons per acre.

**14.6.1.2 Application Equipment**

The following table lists providers of dispersant application equipment in the Pacific Region. Each of these organizations is either an approved Sable Offshore Corp.'s OSRO or is a primary provider of MSRC, Sable Offshore Corp.'s primary equipment provider. In addition to this, a variety of vessel-mounted dispersant delivery systems are available as well.

| Application Equipment       |                        |                     |            |                                |
|-----------------------------|------------------------|---------------------|------------|--------------------------------|
| Equipment                   | Quantity/ Type         | Location            | Contractor | Phone No.                      |
| Aircraft Spraying           | Boeing 737             | Moses Lake, WA      | MSRC       | 800-645-7745                   |
|                             | BE-90 King Air         | Bridgewater, VA     | MSRC       | 800-645-7745                   |
|                             | BE-90 King Air         | Kiln, MS            | MSRC       | 800-645-7745                   |
|                             | C-130 with ADDS Pack   | Port Everglades, FL | OSRL       | <b>01 144 23 8033<br/>1551</b> |
| Dispersant Spotter Aircraft | Bell 206L<br>Bell 206B | Oxnard, CA          | Aspen      | 805-985-5416                   |

**14.6.1.3 Permits and Approval for Dispersant Use**

At the time of an oil spill incident, the FOSC is authorized to evaluate the use of chemical dispersants. Currently, all dispersant use in California is governed by either the pre-approval process, the preapproval with consultation process, or the incident specific RRT approval required process.

Due to its location on land, any spill from the Las Flores Pipeline would be within the Incident Specific Authorization Zone, and any use of dispersants would require the approval of the RRT, through the FOSC.

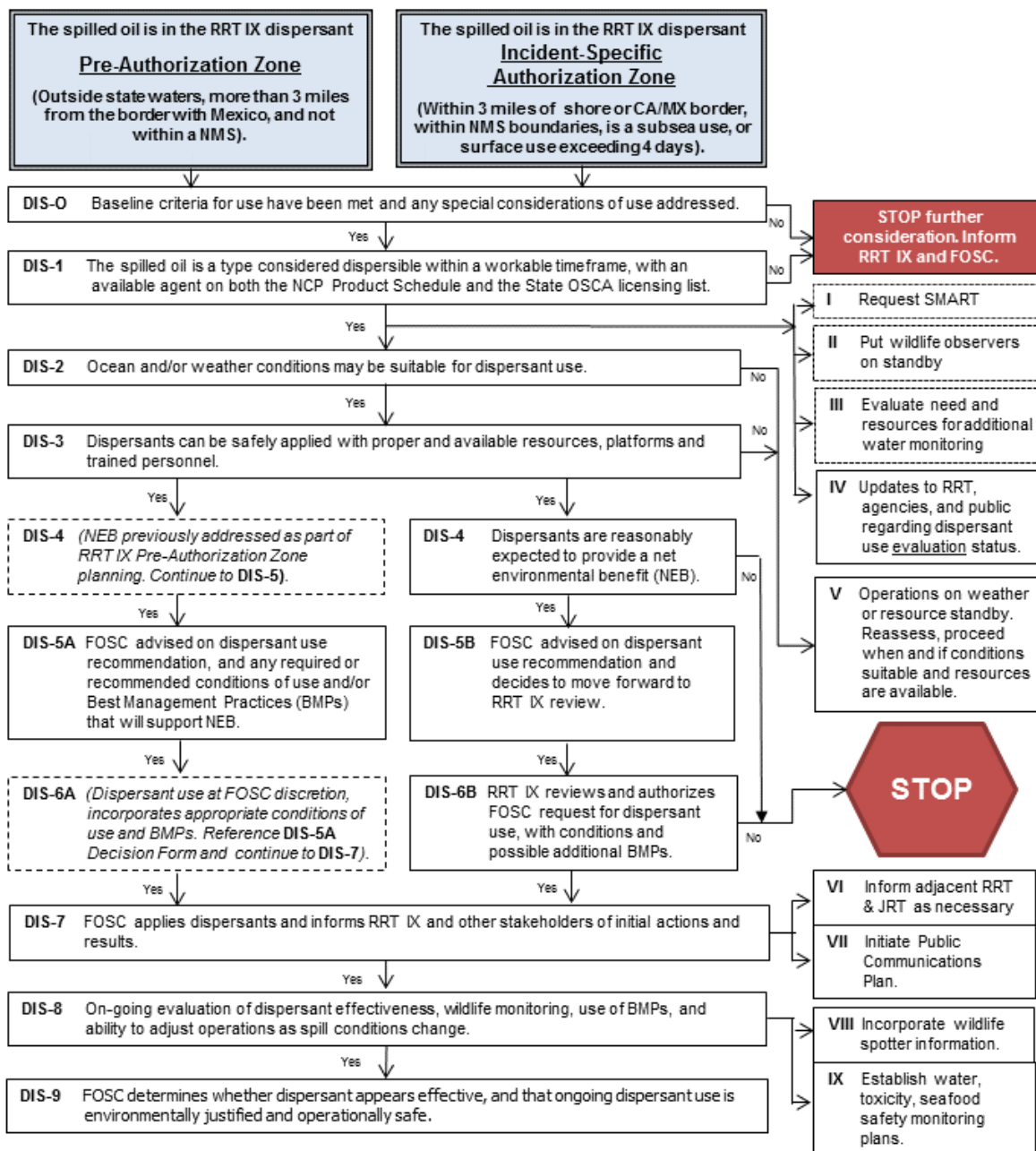
Detailed information regarding the implementation of these processes as well as all applicable checklists for approval are outlined in the [RRT IX California Dispersant Use Plan](#).

The following page contains the RRT IX Dispersant Use Decision Flowchart outlining the evaluation steps to determine the appropriateness of dispersant use.

#### RRT IX Dispersant Use Decision Flowchart for California

**Presumed:** Oil has been spilled, dispersant use is being evaluated for its appropriateness to the incident, and the DISPERSANT DECISION SUPPORT CHECKLIST is being completed.

**Policy:** It is RRT IX policy that the NOAA SSC and/or the CDFW-OSPR ART Technical Specialist lead the dispersant evaluation process whenever possible.





**14.6.1.4 Toxicity Data**

The toxicity of various dispersants has been measured on several occasions, most recently during the summer of 2010 and the recent LC<sub>50</sub> values of Corexit EC9500A are presented in the following summary along with prior values for Corexit 9527.

The LC<sub>50</sub> values represent the concentration, in ppm, causing a 50% mortality over a given period (i.e., 96-hour). For comparison, information for other dispersants that are listed on the EPA National Contingency Plan (NCP) list may be found on the EPA website.

EPA toxicity tests show that among a group of eight dispersants, Corexit EC9500A is among the lesser toxic products.

| Toxicity Data                        |  |                 |
|--------------------------------------|--|-----------------|
| <b>Name:</b>                         | <b>Corexit EC9500A</b>   |                 |
| <b>Manufacturer:</b>                 | Nalco Company  |                 |
| <b>When Available:</b>               | Immediately (nationwide)   |                 |
| <b>State Locations:</b>              | Long Beach, Carpinteria, Concord, Cojo Mooring, Richmond, Santa Barbara & Eureka/Humboldt Bay.                           |                 |
| <b>Amounts:</b>                      | 33,000+ gal (thru MSRC locally, additional amounts available at out of state locations and from other providers)         |                 |
| <b>Toxicity (LC<sub>50c</sub>)*:</b> | Menidia beryllina (inland silverside)  | 130 ppm @ 96-hr |
|                                      | Mysidopsis bahia (mysid shrimp)  | 42 ppm @ 48-hr  |
| <b>Reactions:</b>                    | Non-reactive with steel equipment  |                 |
| <b>Applicability:</b>                | Successful in lab/field tests on fresh crude oil. Successful in lab and wave basin tests of heavy crude when very fresh. |                 |
| <b>Application Methods:</b>          | Spray from fixed wing aircraft, helicopter, or spray vessel  |                 |

*\*Source: Comparative Toxicity of Eight Oil Dispersant Products on Two Gulf of Mexico Aquatic Test Species, US EPA*



| Toxicity Data                        |  |                  |
|--------------------------------------|--|------------------|
| <b>Name:</b>                         | <b>Corexit EC9527A</b>   |                  |
| <b>Manufacturer:</b>                 | Nalco Company  |                  |
| <b>When Available:</b>               | Immediately from current CA inventories  |                  |
| <b>Location:</b>                     | Carpinteria, CA  |                  |
| <b>Amounts:</b>                      | 9,000+ gal   |                  |
| <b>Toxicity (LC<sub>50c</sub>)*:</b> | Menidia beryllina (inland silverside)  | 14.6 ppm @ 96-hr |
|                                      | Mysidopsis bahia (mysid shrimp)  | 24.1 ppm @ 48-hr |
| <b>Reactions:</b>                    | Non-reactive with steel equipment  |                  |
| <b>Applicability:</b>                | Successful in lab/field tests on fresh crude oil. Moderately successful on lab tests of heavy crude when very fresh. |                  |
| <b>Application Methods:</b>          | Spray from fixed-wing aircraft, helicopter, or spray boat.   |                  |

*\*Source: Nalco/Exxon Energy Chemical Product Bulletin & U.S. EPA's National Contingency Plan Product Schedule*

#### 14.6.1.5 Dispersant Effectiveness

Open water with sufficient depth and volume for mixing and dilution and fresh oil are the preferred conditions for dispersant application. As the oil is subjected to heat, sunlight, and water, it generally goes through a variety of changes that are the result of the process known as “weathering.” In general, the results of weathering lead to an increase in viscosity of the oil as the lighter hydrocarbon components are lost and the effectiveness of dispersant applications may be reduced. As a result, it is important that the initial dispersant application should be completed as soon as possible, usually within the first 48-72 hours. Dispersants are an important oil spill response option and should always be considered from a Net Environmental Benefit perspective, i.e., the impact from their use should be weighed against the impact of untreated oil stranding in potentially sensitive environments.

The goal of dispersant use is to reduce the amount of oil on the water surface and a measure of its effectiveness is indicated by its performance in a variety of standard laboratory tests. For example, the “swirling flask test” results below have been reported by the US EPA. In the case of Corexit EC9500A, the results were obtained during the summer of 2010.

The following are results are swirling flask dispersant effectiveness test with South Louisiana (S/L) & Prudhoe Bay (P/B) Crude Oil

| Oil   | COREXIT EC9500A |
|---|-----------------|
| Prudhoe Bay Crude                                 | 45.3%           |
| South Louisiana Crude                             | 54.7%           |
| Average of Prudhoe Bay and South Louisiana Crudes | 50.0%           |

Source: US EPA Website, 2010

| Oil   | COREXIT 9527 |
|---|--------------|
| Prudhoe Bay Crude                                 | 51.0%        |
| South Louisiana Crude                             | 31.0%        |
| Average of Prudhoe Bay and South Louisiana Crudes | 41.0%        |

Source: Technical product bulletin #D-1, USEPA, Oil Program Center, December 18, 1995. "Corexit 9527"

The percentage results indicate how much oil was transferred into the water column following application of the dispersant during this specific test. Corexit EC9500A is just one example of a commercially available dispersant approved for use in the US, but it often is shown to perform better on a wider range of crude oils. Additionally, it should be noted that the swirling flask test is a relatively low energy bench test. In other, more energetic tests as well as in real world situations, higher percentages of oil dispersion are generally encountered. For example, in larger scale wave tank tests, it is often the case that Corexit EC9500A gives complete dispersion (e.g., >90%) of a variety of crude oils.

As the data in the following tables show, significant dispersion is observed for several California crudes up testing in the EXDET as well as in the large wave tank managed by BSEE and located in Leonardo, NJ (OHMSETT - Oil and Hazardous Materials Simulated Environmental Test Tank).

**Dispersant Effectiveness with Santa Ynez Unit Crudes (EXDET Tests)**

| Crude Oil Source | % Oil Dispersed (DOR = 1:20) |              |
|------------------|------------------------------|--------------|
|                  | Corexit 9500                 | Corexit 9527 |
| Hondo            | 71                           | 68           |
| Harmony          | 50                           | 43           |
| Heritage         | 38                           | 17           |

The following table shows, as the treatment level decreases (indicated by changes in DOR, or Dispersant to Oil Ratio), the amount of oil dispersed decreases as well, indicating that there is an optimal level of dispersant to be applied. A DOR of 1:20 represents the usual treatment level, but for heavier crudes, a higher level of dispersant may be required.

**Dispersant Effectiveness with Harmony and Heritage Oils (EXDET /OHMSETT Tests)**

| Test Crude | Corexit 9527<br>EXDET Lab Test<br>Efficiency (DOR) | Corexit 9500<br>EXDET Lab Test<br>Efficiency (DOR) | Corexit 9500<br>OHMSETT Test<br>Efficiency (DOR) |
|------------|--|--|--|
| Harmony    | 70 (1:10)  | 72 (1:10)  | 86 (1:9)   |
|            | 57 (1:20)  | 72 (1:20)  | 100 (1:11)                                       |
|            | 35 (1:50)  | 51 (1:50)  | 46 (1:39)  |
| Heritage   | 15 (1:10)  | 37 (1:20)  | 32 (1:6)   |
|            | 9 (1:20)   |  |  |
|            | 6 (1:50)   |  |  |

**14.6.1.6 Resources at Risk from Dispersant Use**

Information regarding resources at risk from dispersant use can be found in the Dispersant Use Plan for California [Job Aid 6 – Resources at Risk from Dispersant Use](#).

#### **14.6.2 In-situ Burning Use**

In-situ Burning is not pre-authorized within 35 miles of shore. The FOSC must obtain approval from the EPA representative to the RRT and the California Department of Fish and Wildlife (CDFW) representing the State of California. Whenever fish or wildlife resources may be affected, the EPA and State representative to the RRT may consult with the DOI and DOC natural resource trustee agencies.

It must be ensured that substances from an in-situ burn do not have a significant adverse impact to human health. The primary substance of concern is PM<sub>10</sub>, the small particulate matter contained in the smoke plume. It is generally accepted that other substances dissipate, reaching background levels well before PM<sub>10</sub> does. An in-situ smoke plume usually stays well above ground level – hundreds to thousands of feet – but can reach the ground under certain atmospheric conditions.

As a general guideline, a decision to burn should not be made where humans would be exposed to concentrations greater than 50 µg/m<sup>3</sup>, averaged over a 24-hour period. The risk to humans from the volatiles that evaporate must also be considered since in some circumstances, the adverse impact to humans may be greater from the volatiles than from the particulate matter generated from a burn.

The following discussion addresses the seven decision-making points that are a part of the approval process for the use of in-situ burning in marine waters. The discussion briefly identifies the nature of each point and provides the rationale for each decision point. The number points correspond to the numbers aside the boxes in the In-situ Burning Decision Flowchart.

If the proposed zone of in-situ burn is 35 miles off-shore and falls within the criteria of the Federal pre-approval zone, then an in-situ burn has already been federally authorized by the RRT. State and local jurisdictions will be notified consistent with the provisions outlined in the LOA.

Most of the marine waters off California must be considered environmentally sensitive areas due primarily to the presence of foraging seabirds, migrating marine mammals, offshore islands (with bird colonies and marine mammal rookeries and haul outs), and the productive rocky intertidal and subtidal regions and associated kelp forests.

This specific path of the decision-making process would rarely be taken but it is included for purposes of completeness. There are no foreseeable situations under which an oil spill would not pose a threat to environmental resources. If the unlikely situation occurred where environmental resources were not threatened, the FOSC would rely heavily on the recommendation of the local air districts for a burn/no burn decision.

Local Air Districts may have stipulated areas of their offshore air jurisdiction where they will consider that area as falling into a "Quick Approval Zone" if prevailing winds during a proposed in-situ burn operation are blowing offshore or parallel to shore.

For Santa Barbara and San Louis Obispo County Air Districts quick approval distance is >3 miles from shore.

Weather and sea state conditions can greatly affect the ability to burn oil on water. A minimum burn thickness is necessary to sustain combustion, so containment is always an issue. As this will mostly likely be accomplished by booming operations, those weather and sea state conditions that limit booming operations will operationally limit the ability to burn. As a general guideline, wave heights above 4-5 feet and wind speeds between 15-20 knots are generally the upper limits for boom operations.

The selection of in-situ burning as a cleanup/response tool would consider whether the spilled petroleum on the surface of the water (and eventually on the shoreline), and/or dispersal into the water column, would pose greater threats to natural resources than would in-situ burn combustion products in the airstream. This consideration includes evaluation of the resources at risk both on the surface of the water and within the surface microlayer and airstreams, by season, and evaluates how exposure to oil might affect the exposed species at a population level. All local, state, and federal trustee agencies will work within the Unified Command to determine if an in-situ burn will provide a net environmental benefit and result in the overall greater protection of highly sensitive environmental resources.

Meteorological and other air dispersion characteristics will be an important component in the local Air Pollution Control District recommendations and decisions regarding an incident-specific in-situ burn. Although vertical mixing is not usually a concern on the open water, plume dynamics can change if the wind direction changes and the plume contacts land. For purposes of a case-by-case determination, the local air districts will provide their best professional judgment with respect to potential public health concerns and assist the Alternative Response Technologies group in forwarding a recommendation to the FOSC/Unified Command.

There may be times when in-situ burning may be considered when local air districts are not in full support of the operation. Such circumstances would include the following:

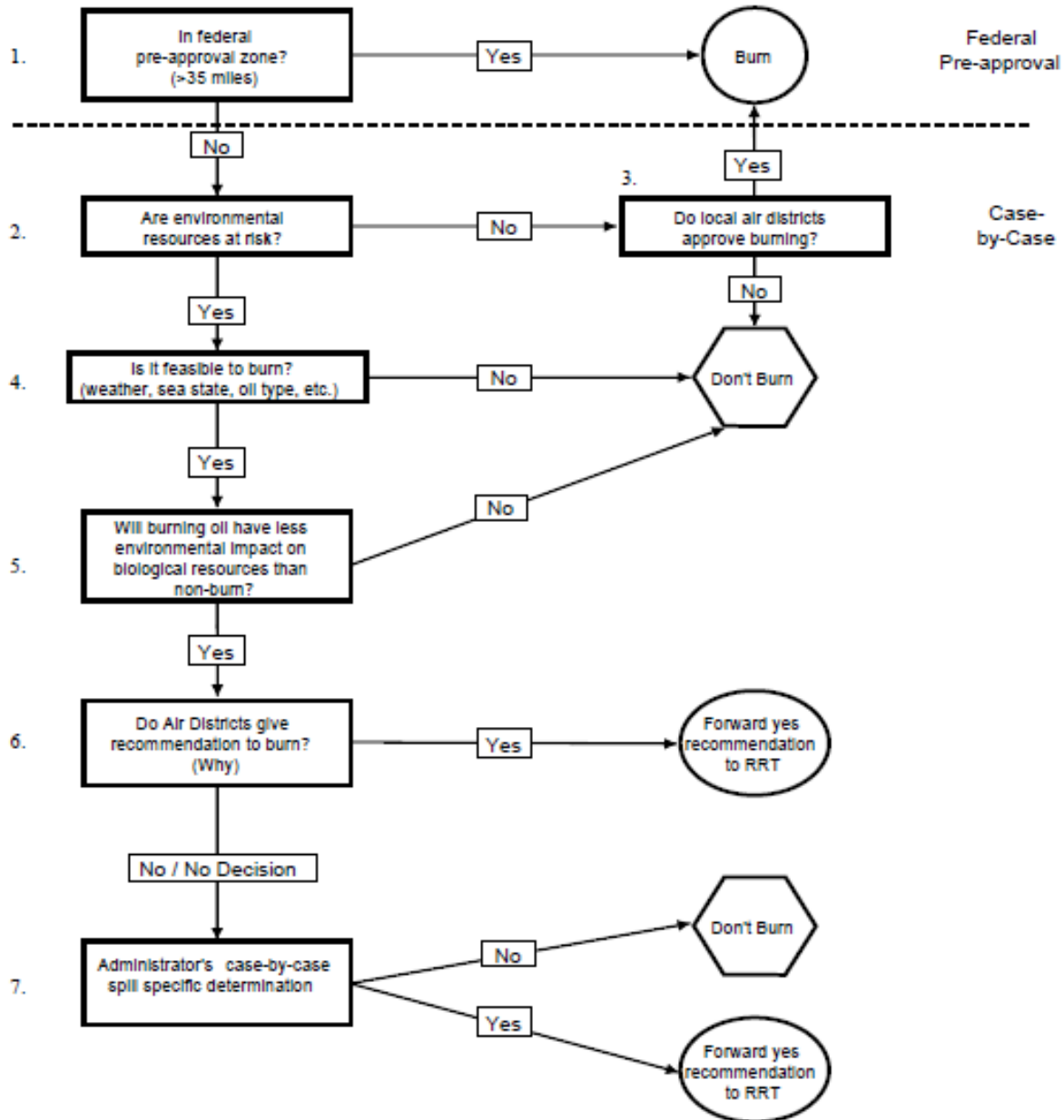
- a) If onshore contact with human populations is expected to be small enough to limit the level of concern; or
- b) The FOSC/Unified Command needs to take advantage of the rapid elimination of oil that in-situ burning affords, and before weather conditions change in a manner that leads to very difficult cleanup and extensive environmental damage.



If the local air districts do not recommend the use of in-situ burning, they must document their reasons and provide those for review by the FOSC/Unified Command and possibly the RRT. This documentation (the supplemental case-by-case form can be used) should include projected air mixing capability, any modeling and/or air quality exposure information and if concerns can be alleviated by means other than a non-burn decision (e.g., having people stay in houses for duration of burn, burning at night, burning at non-peak hours).

Once the RRT IX Case-by-Case Checklist is completed and a decision for in-situ burning use is generated, the FOSC/Unified Command will forward their request, along with any requested data, to the RRT via a phone conference call. (The ART Technical Specialists within the Planning Section can assist with briefings, before-and-after documentation, communications with trustee agencies and local air districts, and any necessary coordination with the Operations Section). Based on the information provided, the RRT will provide an approval/disapproval decision (Appendix IX) to the FOSC regarding the incident-specific use of in-situ burning.

14.6.2.1 In-situ Burn Decision Flowchart



See the [California On-Water In-situ Burn Plan](#) for more information.

**14.6.3 Non-Dispersant Oil Spill Cleanup Agents**

There are several non-dispersant oil spill cleanup agents that can be considered for oil spill remediation. (e.g., sorbents, solidifiers, herding agents, de-emulsifiers, bioremediates). Each of these products has its own considerations and limitations for use and falls under the decision-making authorities of the Region IX Regional Response Team. For more information on the use of any of these products in California contact the California Office of Spill Prevention & Response.

## 15.1 Highly Sensitive Areas

### 15.1.1 Sensitive Area General Protection Measures and Strategies

The protection of social, economic, and environmentally sensitive areas is of primary importance in the response to an oil spill incident. The primary sensitivity of concern should be the potential impact to the safety and health of the people in the vicinity of the incident. Protection of incident sensitivities is generally accomplished by preventing spilled liquids from impacting the sensitive areas through:

- Mitigation strategies and tactics which reduce the amount of a hazardous substance released and removes the potentially affected people from the hazard or protects them from the safety and health exposure risk
- Implementation of upstream or up gradient spill containment and/or recovery operations
- Deployment of exclusion booms or construction of exclusion barriers between approaching oil and the area of concern
- Diversion of oil away from or around the area of concern

In most cases the initial protection activities for land spills will involve the construction of earthen berms or dams or the excavation of shallow trenches between the spill and the sensitive area to either contain the oil or prevent it from contacting the area. For spills on water, protection activities will generally involve similar actions but will use containment or sorbent booms for the containment, diversion or exclusion of the oil. Dams or sorbent barriers constructed upstream across relatively narrow and shallow waterways with low flows are also common methods of protecting sensitive areas.

Recovery of both land and water spills prior to their contacting sensitive areas is another form of protection and is often facilitated, at least in the initial stages using vacuum trucks, portable pumps, or sorbents. Skimmers are the most efficient means of oil recovery but are not always available during the initial response effort.

The Las Flores Pipeline System's pump station facilities and associated pipeline sections are located on, cross, or lie adjacent to a variety of different terrain that support a wide range of biological habitats. Along the 30-inch mainline these include Gaviota Creek, the Santa Ynez River, Sisquoc and Cuyama Rivers, numerous small intermittent or ephemeral streams, and different terrestrial habitats.

Within the Coastal Zone, the 24-inch coastal pipeline and feeder line are adjacent to or traverse numerous drainage's that outfall into the Pacific Ocean between 0.5 and 1.5 miles from the respective crossings. These drainages include: Cañada del Corral, Venadito Creek, Refugio Creek, Arroyo's Quemado and Hondo, Cañada del Molino, San Onofre Creek, Zorrillas Creek, and Cañada del Leon. The significance of sensitive resources associated with these habitats, as well as the minor drainages not listed here and the coastal terraces, are discussed elsewhere in this document.

Oil spill response techniques will be addressed on a site-specific basis given the terrain and surrounding habitat in the vicinity of the spill. The techniques to be employed will be decided by the Incident Commander/Unified Command based upon these factors, as well as consideration of any physical, environmental, or safety constraints.

Where multiple sensitive areas are threatened, consideration should be given to prioritizing the areas based on their relative sensitivity to oil spills, the potential degree of impact, the feasibility of implementing protection measures prior to oil contact, and the probable effectiveness of those measures.

#### **15.1.1.1 Minimizing Impacts to Sensitive Resources**

The Las Flores Pipeline system, including its pipelines and pump stations, traverse or are near a variety of sensitive habitat areas and sensitive resources. This is especially true in those areas where the potential exists to impact California's marine and near shore resources.

Every effort will be made to minimize damages to sensitive resources during all response phases including mobilization, containment, material storage, handling and transportation, and post event cleanup. Marine resources potentially at risk have been identified and their presence will be considered during the planning efforts associated with spill response.

Nearly the entire coast line between Cañada del Corral and Cañada de la Gaviota is occupied by State Beaches and Parks (El Capitan, Refugio and Gaviota) thus not only biological resources but also resources related to public use of the coastal areas should be considered. As such, all activities associated with an Las Flores Pipeline System oil spill that reaches, or has the potential to reach, marine waters will be closely coordinated and planned in conjunction with State Parks personnel as well as other responding agency personnel.

Considerations for minimizing impacts to sensitive resources in the terrestrial, shore, near shore and marine environments include recognition, identification and location, adequate planning and implementation of response activities, education for the response personnel and protection. The sensitivity of terrestrial and beach related marine resources has been addressed and Company personnel are aware of their presence relative to Las Flores Pipeline System facilities.

All response efforts will be coordinated with the appropriate agency personnel such as OSPR, CDFG, State Parks and the County of Santa Barbara to ensure that, to the extent practicable and feasible, impacts to such resources are minimized.

A net environmental benefit assessment (NEBA)/spill mitigation impact analysis (SIMA) will be completed prior to the initiation of any marine, shoreline or terrestrial spill response operation. The NEBA/SIMA will include all aspects of response activities as they relate to potential resource impacts.



Education and training will be provided to all response personnel to ensure that they are cognizant of the resources at risk, where such resources may be encountered and that every effort to minimize impacts is required. Resources that have been identified and located within a response area will be discretely mapped and, to the extent feasible, will be marked (flagged or fenced) such that they are provided every possible protection. This may not always be feasible but will be given every consideration during the response efforts.

#### **15.1.1.2 Marine Spill Containment**

In the event of an oil spill at any of the numerous creeks and streams between Las Flores (Cañada del Corral), and Gaviota (Gaviota Creek), oil could potentially reach marine environments off of El Capitan, Refugio or Gaviota State Beaches. Oil could be contained at the ocean outfalls of these drainages. An earthen dam constructed by heavy equipment with or without pipes (to allow water flow) could be installed at the mouth of the creek. If oil reached the ocean, a containment boom could also be placed immediately offshore against the current to minimize the spread of oil to other near shore areas.

Marine clean-up procedures consist primarily of the use of booms and skimmers, sorbents, chemical dispersants, and collecting agents. If marine clean-up operations become necessary, the Company will rely on contracted OSROs, and possibly other available contractors to provide equipment and manpower necessary for containment and clean-up. If warranted, the County's Area Oil and Gas Industry Emergency Response Plan could be activated, and additional resources/manpower would be available to the Company from other participating Oil and Gas Companies.

#### **15.1.1.3 Swift Water/River Containment**

See Section 15.2.2 for information on specific river crossing protection strategies and information.

#### **Low Flow or No Flow**

- Depending on flows, oil can be contained by placing underflow blocking dams or booms downstream from the spill. Booms can be deployed off of Highway 166 bridges to contain oil or divert it away from stream banks.
- Oiled rocks and structures can be cleaned with steam cleaning. If oiled substrate materials are removed from the natural streambed, they should be replaced with similar size and type of material (e.g., sand, gravel, and cobble).
- Oily substrates should be removed to an approved landfill. The site should be recontoured and armored with similar substrate (e.g., sand, gravel, cobble) to prevent erosion.
- If a sump pit is necessary to contain oil, it should have a plastic liner to prevent oil from seeping into streambed gravels. Ideally, and if possible, sump pits should be located outside of alluvial gravels on relatively impervious substrates.
- Remove oil with vacuum pump trucks and/or skimmers.
- Use sorbents to remove small amounts of pooled oil.

- If necessary, water flushing may be used to remove residual oil from still water areas and riparian vegetation. Care should be taken to ensure oil flushed from vegetation is contained.
- If deemed necessary, oiled shrubs and willow vegetation should be cut at ground level or water level. Heavily oiled trees may be cleaned by hand or by using gentle hydro blasting or steam cleaning.
- Interceptor barriers to keep oil from reaching streambed and aquifer gravels may also be needed.
- Restoration should follow clean-up.

**High Flow**

- Booms will be necessary at high flows. Booms could be placed along the river's edge to protect stream banks. Booms and skimmers could be used for controlling and cleaning up oil.
- A boom should be located at the beginning of the still water areas (lagoons) to minimize oil contamination. If this is not possible a boom could be placed below the lagoon, thus containing oil within the lagoon and protecting other lagoon and stream resources below the crossing.
- A diversion dike and containment berm should be constructed downstream, as able
- If a sump pit is necessary to contain oil, it should have a plastic liner to prevent oil from seeping into streambed gravels. Ideally, sump pits should be located outside of alluvial gravels on relatively impervious substrates.
- Remove oil with vacuum pump trucks and/or skimmers.
- Use sorbents to remove small amounts of pooled oil.
- If necessary, water flushing may be used to remove residual oil from the still water/lagoon areas and from riparian vegetation. Care should be taken to ensure oil flushed from vegetation is contained.
- If deemed necessary, oiled shrubs and willow vegetation should be cut at ground or water level. Heavily oiled trees may be cleaned by hand or with gentle hydroblasting or steam cleaning.

#### 15.1.2 Description of Environmentally Sensitive Areas

Environmental/Socio-economic sensitive areas are of extreme importance and must be considered when planning a response effort. Protection of the health and safety of the public and the environment, as well as the protection of the various socio-economic sensitivities, must also be promptly addressed to mitigate the extent of damage and minimize the cost of the clean-up effort.

All environmental and socio-economic sensitive areas are worthy of protection but must be prioritized during a response effort.

|                 |   |
|-----------------|---|
| <b>Tier I:</b>  | Equipment and Onsite Response Team to respond to small incidents, or Tier I events, are maintained at our facilities.   |
| <b>Tier II</b>  | If an incident requires response capabilities beyond those maintained on our facility, then we would activate the SBC IMT and OSRO, as needed. SBC IMT Personnel can be supplemented with personnel from Sable Offshore Corp.'s Houston Office and The Response Group, as needed. |
| <b>Tier III</b> | For a major event that is a Tier III response, the full IMT and OSRO will be activated, among other response contractors as required. The SBC IMT would be supplemented with IMT Personnel from Sable Offshore Corp.'s Houston Office and The Response Group, as needed.          |

The environmental and socio-economic sensitive areas in the vicinity of the Facility have been broken down into specific categories and identified in this Section.

The applicable Area Contingency Plan(s) and Geographic Response Plans/Strategies contain Environmental and Socio-Economic areas that should be protected in the event of a discharge or release with accompanying information about this site, including water conditions, sensitive habitats, and contact information.

| Applicable Area Contingency Plan/ Geographic Response Plan |  |
|--|--|
| ✓  | <a href="#">Los Angeles – Long Beach Area Contingency Plan</a> |
| ✓  | <a href="#">Santa Barbara County GRA</a>                       |

#### 15.1.3 Minimizing Impacts to Sensitive Resources

Every effort will be made to mitigation impact to sensitive resources during all response phases including mobilization, containment, recovery, material storage, handling and transportation, and remediation.

Considerations for mitigation impacts to sensitive resources in the terrestrial, shore, nearshore, and marine environments include recognition, identification and location, adequate planning, and implementation of response activities, education for response personnel, and protection. A

Net Environmental Benefit Analysis (NEBA) will be conducted prior to the initiation of any marine, shoreline, or terrestrial spill response operations.

#### **15.1.4 Natural Resource Damage Assessment**

Under the provision of CERCLA, the Oil Pollution Act of 1990 (OPA '90), and numerous state statutes, cost recovery can be obtained from industry for natural resource damage caused by the release of oil or hazardous substances to the environment. Natural resources are defined as land, air, biota, groundwater, and surface water. A federal or state government entity, an Indian tribe or another nation acting as a public trustee of a natural resource may file claims for damages to natural resources.

A Natural Resource Damage Assessment (NRDA) is used to determine the damages owed to a public Trustee for residual natural resource injuries. This assessment is often conducted by the public Trustee, the potential responsible party or both. During the NRDA study, the injured natural resources are identified, the extent of the injury is quantified and the extent of the economic damage resulting from the loss of services provided by the resources is determined. In addition, the assessment also determines the cost of restoration or replacement of the injured natural resource.

A NRDA study is not conducted in all cases. HSE will work closely with the Trustees on a case-by-case basis to determine if a NRDA study is required. The Company may choose to conduct a parallel study if the trustee determines that a NRDA will be conducted. The Environmental Coordinator should be contacted immediately if a Trustee contacts any member of the Company response team. HSE will provide assistance in conducting NRDA studies.

If a spill occurs that could potentially result in an NRDA, steps should be taken to assist the Trustees and to help protect the Company interests throughout the assessment process. Samples should be delivered to a laboratory immediately for analysis. If samples cannot be delivered immediately, they should be temporarily stored in a refrigerator or a cool dark place since exposure to heat and light could affect the analysis. Samples should be transported in waterproof containers or wrapped in enough sorbent material to soak up the entire contents of the jar in case of leakage or breakage.



## 15.2 Off Site Consequence Analysis

### 15.2.1 Description of Pipeline Corridor

See Trunk Line Charts in Section 16 for locations of check valves, river crossings, MOVs etc.

**Note:** Nearly the entire coast line between Cañada del Corral and Cañada de la Gaviota is occupied by State Beaches and Parks (El Capitan, Refugio and Gaviota) thus not only biological resources but also resources related to public use of the coastal areas should be considered. As such, all activities associated with an oil spill that reaches, or has the potential to reach, marine waters will be closely coordinated and planned in conjunction with State Parks personnel as well as other responding agency personnel.

**CA-324 Las Flores Canyon to Gaviota** – The CA-324 24-inch pipeline parallels U.S. Highway 101 along the south coast between Las Flores Canyon consolidated oil and gas processing facility and the motor operated MOV located east of Refugio Creek. The pipeline is located north of U.S. 101 and generally follows existing powerline and/or gas pipeline rights-of-way across coastal terraces and deeply incised canyons formed by coastal streams. The line continues west, to its terminus at the Gaviota Pump Station. This portion of the pipeline is north of US 101 and follows, where possible, existing utility service corridors across the coastal canyons, Cañada's and natural drainage's as well as coastal terraces.

**CA-325A Gaviota to Sisquoc** – The CA-325A 30" pipeline extends west from the Gaviota Pump Station to a MOV located east of Gaviota Creek and US 101. It enters Gaviota State Park approximately 0.5 miles east of U.S. 101 and extends westerly across the gently sloping coastal terrace and Cañada del Barro before dropping into the Cañada de la Gaviota drainage area. It then crosses U.S. Highway 101 and Gaviota Creek (Cañada de la Gaviota) immediately south of the U.S. Highway 101 "Caltrans" rest stop areas. The pipeline then extends west and north from the Gaviota Creek MOV. The pipeline continues west up a broad spur ridge to the ridge crest and the westerly boundary of Gaviota State Park. The pipeline traverses narrow ridge-crests, crosses out of the Park and onto Hollister Ranch for approximately ½ mile, and then crosses back into the Park before descending toward the west fork of Gaviota Creek (Betty Creek). The ROW passes west of the new Vista del Mar School and Las Cruces Adobe and then crosses beneath Highway 1 west of its intersection with US 101. The pipeline continues northward along the west side of US 101 through the Santa Ynez Mountains. It crosses long expanses of grasslands across the Las Cruces Ranch and steep walled canyons that form part of the Nojoqui Creek watershed. North of Moonshine Creek, the route crosses ridges with rock outcroppings. The pipeline crosses beneath the Santa Ynez River west and south of Buellton and continues north across the Purisima and Solomon Hills. It crosses the northern edge of the San Rafael Mountains and the eastern edge of the Santa Maria Valley. The pipeline crosses beneath the Sisquoc River and continues north across the River Valley. It traverses moderately to severely sloping foothills at Kelly Canyon and extends west to the Sisquoc Pump Station at the southern end of Santa Maria Canyon.



**CA-325B Sisquoc to Pentland** - The CA-325B 30" pipeline follows Santa Maria Canyon after leaving the Sisquoc Pump Station. It then extends northeast towards Tepusquet Road. The route crosses relatively gentle terrain until it reaches the crest of the Sierra Madre Mountains where it traverses steep slopes approaching Suey Canyon and Buckhorn Canyon. The pipeline follows the northern edge of the Sierra Madre Mountains south of State Highway 166 through the Los Padres National Forest. The route crosses rugged terrain across the crests of the Sierra Madre Mountains, descends the mountains, crosses the Sierra Madre Ridge Road, and enters the Cuyama River Valley near Gypsum Canyon. At the Cuyama River crossing the pipeline exits Santa Barbara County and enters San Luis Obispo County. The pipeline continues for approximately 44.5 miles through the Selby Ranch, crossing over the San Andres Fault, and terminating at the Pentland Station in Kern County.

### 15.2.2 River Crossings

Containment and Clean-up at Major Stream Crossings Techniques used to treat an oil spill in biologically sensitive areas will be of necessity determined during a spill episode. Response techniques used on a spill will depend on site-specific conditions at the time of the spill. The physical characteristics of the oil; viscosity, volatile fraction, temperature and volume; and seasonal stream flows will determine the extent of the spill and dictate what techniques are most appropriate.

#### 15.2.2.1 Cañada del Corral

| Cañada del Corral River Crossings  |   |   |   |
|--|---|---|---|
| River  | Access  | Environmental Sensitivity   | Economic / Cultural Sensitivity   |
| Cañada del Corral - 1.3 miles upstream of its outfall to the Pacific Ocean | The crossing is accessible on all-weather roadways via U.S. 101, Calle Real (US 101 Service Road) and the network of roads within the Las Flores Canyon facility. This intermittent stream is protected by a “sluice gate” closure system downstream of the pipeline crossing. The gate can be operated remotely in an emergency or can be closed manually if needed. | Cañada del Corral supports vegetation typical of riparian areas. Primary species are oak and sycamore woodlands with an abundance of willow thickets interspersed throughout the drainage.<br><br>Sensitive birds, plants, and aquatic species are present. | Culturally sensitive areas along and adjacent to Cañada del Corral have been identified and will be considered when evaluating response, containment and cleanup techniques to be utilized in the event of a spill. |

If a spill occurred from the Las Flores Pump Station or the 24-inch Coastal Pipeline in Cañada del Corral Sable Offshore Corp. would be immediately notified and requested to shut the barrier gate, thereby protecting its downstream reaches. Alternatively, as mentioned above, this gate could also be closed manually on-site by Company personnel in the event of an emergency. Notifications and potential evacuations would be made as required.



15.2.2.2 Cañada del Venadito

| Cañada del Venadito River Crossings  |  |   |                                 |
|--|--|---|---------------------------------|
| River  | Access   | Environmental Sensitivity   | Economic / Cultural Sensitivity |
| Cañada del Venadito - Approximately 700 feet north of US 101 culvert system beneath the highway. | The crossing is readily accessible via US 101 , the Calle Real service road and Venadito Ranch road. There is no vehicular access to the mouth of Cañada del Venadito and its surrounding shoreline area. The nearest point from which vehicles may access to the mouth of the stream is from El Capitan State Beach Park, which is approximately 2.5 miles east of its outfall at the Pacific Ocean. Vehicular access is also available from Refugio State Beach Park which is about 1 .5 miles west of the streams outfall. Access to the area immediately above the outfall area may be gained via the all-weather bike path between these two State Beach parks. | <p>Venadito is an intermittent stream which is normally dry throughout the year. It supports riparian species such as willow, oak, elderberry and sycamore.</p> <p>Sensitive birds, plants, and animal species are present.</p> | None identified.                |



### 15.2.2.3 Cañada del Refugio

| Cañada del Refugio River Crossings                     |   |   |                                 |
|--|---|---|---------------------------------|
| River  | Access  | Environmental Sensitivity   | Economic / Cultural Sensitivity |
| Cañada del Refugio - Cross is north of US 101 overpass | The crossing is accessible from Refugio Road off-ramps on U.S. 101. | <p>Refugio is a perennial stream with a very large watershed and several sensitive resources downstream of the crossing. The pipeline crosses the stream in a relatively insensitive area as riparian vegetation is lacking, the crossing is rip-rapped.</p> <p>Sensitive birds, plants, aquatic and animal species, and Monarch Butterflies are present.</p> | None identified.                |

If the spill occurs during periods of high flow it is likely to reach resources downstream including Refugio State Beach Park. Therefore, containment as close to the spill site as possible (with priority given to protecting the beach, the lagoon, riparian resources downstream of the crossing and near shore resources at the ocean outfall) should be attempted.

Protect the beach by blocking flow at the outfall into the Ocean. One alternative would be to construct a sandbag or sand dam. This should help contain oil in the lagoon. The structure should be high enough to prevent splash over. Another alternative would be to use equipment to form a containment basin or sump. If water is flowing, an underflow dam can be used to maintain flow.

Protect the lagoon by blocking the bridge inlet under the beach park access road south of U.S. Highway 101. The inlet could be blocked with plywood or sandbags. If water is flowing, the flow must be maintained. A filter fence or boom could be installed beyond the riparian vegetation on the downstream side of the bridge to strain and contain any escaping oil. Underflow dams or a series of underflow dams may also be constructed with or without pipes (depending on flows) above the lagoon within the creek channel below the spill.

#### 15.2.2.4 Tagiguas Creek

| Tagiguas Creek River Crossings                                  |  |  |                                 |
|---|--|--|---------------------------------|
| River   | Access   | Environmental Sensitivity  | Economic / Cultural Sensitivity |
| Tagiguas Creek - Approximately 300 feet north of US 101 culvert | The Tagiguas Creek crossing occurs about 300 feet north of the U.S. Highway 101 culvert system beneath the highway and is accessible off U.S. Highway 101, the Calle Real service road, and the Tagiguas Ranch Road. | <p>Tagiguas is an intermittent stream with major riparian vegetation comprised of willow trees, rushes, sedges, and cattails.</p> <p>Sensitive birds, plants, and aquatic species are present.</p> | None identified.                |

#### 15.2.2.5 Arroyo Quaernado

| Arroyo Quaernado River Crossings  |  |   |                                 |
|---|--|---|---------------------------------|
| River   | Access   | Environmental Sensitivity   | Economic / Cultural Sensitivity |
| Arroyo Quaernado - About 200 feet north of the US 101 culvert system beneath the highway. | The crossing is accessible via US 101, the Calle Real service road and the Baron Ranch road. | <p>Major vegetation in the vicinity of the pipeline crossing consists of willow, sycamore and elderberry trees; lemonade berry; horsetail; sedges and cattails.</p> <p>Sensitive birds, aquatic and animal species are present, as well as Monarch Butterflies and Two Striped Garter Snakes.</p> | None identified.                |

Arroyo Quemado's outfall at the Ocean forms a lagoon-like feature which may support fresh or brackish water resources.

Shoreline accessibility to the mouth of Arroyo Quemado is available via the Arroyo Quemado ranch access road off of U.S. Highway 101 which is immediately west of the streams highway undercrossing. If a spill occurred in Arroyo Quemado hand techniques may be more





appropriate and feasible than the use of equipment. Space is very constrained and limited on either side of the crossing therefore construction of containment basins or staging equipment will be moderately difficult. Since the crossing is immediately upstream of the highway culvert, a culvert blocking technique would contain the oil at or near the crossing, aid in clean-up and protect the beach and downstream resources.

If the spill occurs during periods of high flow it is likely to reach resources downstream including beach areas at the ocean outfall. Therefore, containment as close to the spill site as possible with priority given to protecting the beach, the lagoon, and near shore resources should be attempted.

Protect the beach by blocking the existing stream channel at the lagoon/mouth of Arroyo Quemado. One alternative would be to construct a sand berm or sandbag dam. This should help contain oil in the lagoon. The structure should be high enough to prevent splash over. Another alternative would be to use equipment to form a containment basin or sump. If water is flowing, an underflow dam can be used to maintain flow.

Protect the lagoon by blocking either the U.S. Highway 101 bridge or the railroad trestle. The bridges may be blocked with plywood, sandbags, or by booming. If water is flowing, the flow must be maintained. A filter fence or boom could be installed on the downstream side of the bridges to strain and contain any escaping oil or as indicated in Number 1 above an underflow dam could be constructed. Underflow dams or a series of underflow dams can be constructed with or without pipes (depending on flows) above the lagoon within the creek channel below the spill.

Protect the riparian resources by directing oil to one area for containment. The riparian vegetation will provide natural entrainment of the oil and will slow its progress toward downstream resources. Oil can be directed to one part of the stream by using diversion dikes or booms. These diversion structures can be constructed of any effective material such as plywood planks, straw dikes, sand bags, plastic tarps, or sorbent rolls. If necessary, heavy equipment may be utilized to construct structures large enough to contain a large spill. If large containment berms are constructed they must contain underflow structures to allow water movement.

### 15.2.2.6 Arroyo Hondo

| Arroyo Hondo River Crossings  |  |  |                                 |
|---|--|--|---------------------------------|
| River   | Access   | Environmental Sensitivity  | Economic / Cultural Sensitivity |
| Arroyo Hondo - Crossing occurs immediately north of the Highway 101 | The crossing is accessible via U.S. Highway 101, and along a private ranch road. The pipeline crosses Arroyo Hondo at a narrow point in the channel immediately above the highway culvert. | <p>The crossing supports riparian vegetation such as willow, western sycamore, white alder, California bay laurel, blackberry, and mug wort.</p> <p>Sensitive birds, plants, aquatic and animal species are present, as well as Monarch Butterflies.</p> | None identified.                |

The Arroyo Hondo crossing occurs immediately north of the Highway 101 bridge over the Cañada and is accessible via U.S. Highway 101, and along a private ranch road. The pipeline crosses Arroyo Hondo at a narrow point in the channel immediately above the highway culvert. The crossing supports riparian vegetation such as willow, western sycamore, white alder, California bay laurel, blackberry, and mug wort.

If a spill occurred in Arroyo Hondo hand techniques may be preferable to using equipment. Ample space is available on either side of the crossing for construction of containment basins or staging equipment. Since the crossing is immediately upstream of the highway culvert, a culvert blocking technique would contain the oil at or near the crossing, aid in clean-up and protect the beach.

If the spill occurs during periods of high flow it is likely to reach resources downstream including beach areas at the ocean outfall. Therefore, containment as close to the spill site as possible with priority given to protecting the beach, the lagoon, and near shore resources should be attempted.

Protect the beach by blocking the existing stream channel at the lagoon/mouth of Arroyo Hondo. One alternative would be to construct a sand berm or sandbag dam. This should help contain oil in the lagoon. The structure should be high enough to prevent splash over. Another alternative would be to use equipment to form a containment basin or sump. If water is flowing, an underflow dam can be used to maintain flow.

Protect the lagoon by blocking the U.S. Highway 101 road culvert. The culvert can be blocked with plywood or sandbags. If water is flowing, the flow must be maintained. A filter fence or boom could be installed on the downstream side of the culvert to strain and contain any escaping oil. The old Highway 101 bridge and the railroad trestle may also present alternative locations for installing blocking and/or



booming devices. Underflow dams or a series of underflow dams can be constructed with or without pipes (depending on flows) above the lagoon within the creek channel below the spill

Protect the riparian resources by directing oil to one area for containment. The riparian vegetation will provide natural entrainment of the oil and will slow its progress toward downstream resources. Oil can be directed to one part of the stream by using diversion dikes or booms. These diversion structures can be constructed of any effective material such as plywood planks, straw dikes, sandbags, plastic tarps, or sorbent rolls. If necessary, heavy equipment may be utilized to construct structures large enough to contain a large spill. If large containment berms are constructed, they must contain underflow structures to allow water movement.

#### 15.2.2.7 Cañada's de la Pila and de la Huerta

| Cañada's de la Pila and de la Huerta River Crossings                     |  |   |   |
|--|--|---|---|
| River  | Access   | Environmental Sensitivity   | Economic / Cultural Sensitivity   |
| Cañada's de la Pila and de la Huerta – Crossing 100 feet north of the US | These crossings are readily accessible via U.S. Highway 101 and the Calle Real service road. | Cañada de la Pila primarily supports willow thicket riparian vegetation whereas Cañada de la Huerta supports a variety of brush species.<br><br>Sensitive bird and plant species are present. | The Santa Barbara County Tajiguas landfill is located immediately north of the Cañada de la Pila crossing and the abandoned Molino Gas Plant is located immediately north of the pipeline crossing the Cañada de la Huerta. |

These two intermittent drainages are crossed by the Las Flores Pipeline System about 100 feet north of the U.S. Highway 101 culvert systems beneath the highway. These crossings are readily accessible via U.S. Highway 101 and the Calle Real service road. Cañada de la Pila primarily supports willow thicket riparian vegetation whereas Cañada de la Huerta supports a variety of brush species. The Santa Barbara County Tajiguas landfill is located immediately north of the Cañada de la Pila crossing and the abandoned Molino Gas Plant is located immediately north of the pipeline crossing the Cañada de la Huerta. Sensitive/protected species known or expected to occur at, near or downstream of these drainages are listed below.



**15.2.2.8 Cañada's de la Gallina, de Guillermo & de la Posta**

| Cañada's de la Gallina, de Guillermo & de la Posta River Crossings           |  |  |                                 |
|--|--|--|---------------------------------|
| River  | Access   | Environmental Sensitivity  | Economic / Cultural Sensitivity |
| Cañada's de la Gallina, de Guillermo & de la Posta – Crossing about 200 feet | Each crossing is readily accessible via U.S. Highway 101 and the private ranch roads that parallel the pipeline route and the highway. | Major vegetation is completely lacking at Cañada de la Gallina whereas Cañada's de Guillermo and de la Posta support species such as oak, sycamore and willow.<br><br>Sensitive animal species are present | None identified.                |

These three intermittent drainages are crossed by the Las Flores Pipeline System about 200 feet north of the U.S. Highway culvert systems beneath the highway. Each crossing is readily accessible via U.S. Highway 101 and the private ranch roads that parallel the pipeline route and the highway. Major vegetation is completely lacking at Cañada de la Gallina whereas Cañada's de Guillermo and de la Posta support species such as oak, sycamore and willow.

#### E15.2.2.9 Cañada del Molino

| Cañada del Molino River Crossings   |  |  |                                 |
|---|--|--|---------------------------------|
| River   | Access   | Environmental Sensitivity  | Economic / Cultural Sensitivity |
| Cañada del Molino – Immediately east of the former Vista del mar School along US 101. | The crossing is accessible along a private ranch road extending east from the old school site, or by traveling west along a private ranch road beginning at Cañada def Guillermo off of Highway 101. The crossing occurs across a steep banked narrow channel within a moderately broad floodplain of meandering channels. | Cañada del Molino supports a relatively broad riparian zone comprised of coast live oaks, willows and western sycamores.<br><br>Sensitive aquatic and animal species are present | None identified.                |

The Las Flores Pipeline System crosses Cañada def Molino immediately east of the former site of the temporary Vista def Mar School building along Highway 101. The crossing is accessible along a private ranch road extending east from the old school site, or by traveling west along a private ranch road beginning at Cañada def Guillermo off Highway 101. The crossing occurs across a steep banked narrow channel within a moderately broad floodplain of meandering channels. Cañada def Molino supports a relatively broad riparian zone comprised of coast live oaks, willows and western sycamores.

There is no vehicular access to the shoreline area adjacent to the mouth of Cañada def Molino. The nearest access point would be via the Gaviota Interim Marine Terminal which is about 1.5 miles of Cañada del Molino. If a spill occurred in Cañada def Molino it would be acceptable to use, with care, equipment for containment. Tree limbs should be trimmed with saws and not broken off by equipment. Oiled tree trunks should be gently steamed cleaned or flushed with water.

The beach is 1,500 feet from the Molino crossing and containment techniques should be implemented in the channel of the stream to prevent oil from reaching the beach. The Highway 101 and railroad culverts offer opportunities to use culvert blocking techniques to protect beach and marine resources.

If the spill occurs during periods of high flow it is likely to reach resources downstream including beach areas in the vicinity. Therefore, containment as close to the spill site as possible with priority given to protecting the beach, riparian vegetation and near shore resources should be attempted.



Protect the beach by blocking flow at the mouth of the Creek. One alternative would be to construct a sand berm or sandbag dam. This should help contain oil and protect near shore resources. The structure should be high enough to prevent splash over. Another alternative would be to use equipment to form a containment basin or sump. If water is flowing, an underflow dam can be used to maintain flow.

Protect the beach by blocking the U.S. Highway 101 or railroad culverts. The culverts can be blocked with plywood or sandbags. If water is flowing, the flow must be maintained. A filter fence or boom could be installed on the ocean side of the culverts to strain and contain any escaping oil. Underflow dams or a series of underflow dams can be constructed with or without pipes (depending on flows) above the outfall within the creek channel below the spill.

Protect the riparian resources by directing oil to one area for containment. The riparian vegetation will provide natural entrainment of the oil and will slow its progress toward downstream resources. Oil can be directed to one part of the stream by using diversion dikes or booms. These diversion structures can be constructed of any effective material such as plywood planks, straw dikes, sand bags, plastic tarps, or sorbent rolls. If necessary, heavy equipment may be utilized to construct structures large enough to contain a large spill. If large containment berms are constructed, they must contain underflow structures to allow water movement.

#### 15.2.2.10 Cañada de las Zorrillas

| Cañada de las Zorrillas River Crossings   |   |   |   |
|---|---|---|---|
| River   | Access  | Environmental Sensitivity   | Economic / Cultural Sensitivity   |
| Cañada de las Zorrillas - about 700 feet north of the U.S. Highway 101 culvert system beneath the highway | The crossing is accessible along a private ranch road extending west from the old school site, or by traveling east along a private ranch road which begins immediately east of the Cañada del Leon crossing off of US 101. | Cañada de Las Zorrillas supports oak woodland vegetation although some willow thickets are present in the channel downstream of the LAS FLORES PIPELINE SYSTEM crossing. The coastal terrace to the west of this crossing supports populations of Gaviota Tar plant. Any clean-up operations in this vicinity should include awareness that Tar plant populations may be present along existing access roads. Containment and clean-up staging should not, to the extent feasible, occur in Tar plant habitat | The area surrounding Cañada de las Zorrillas crossing is owned by the Coastal Band of the Chumash Nation and is often utilized for Native American religious purposes. As such this area is considered culturally and spiritually sensitive and all activities conducted in the area must be carefully coordinated with Tribal officials. |

The Las Flores Pipeline System crosses Cañada de las Zorrillas, an intermittent coastal stream, immediately south of the confluence of its two tributaries and about 700 feet north of the U.S. Highway 101 culvert system beneath the highway. The crossing is accessible along a private ranch road extending west from the old school site, or by traveling east along a private ranch road which begins immediately east of the Cañada del Leon crossing off of Highway 101. It supports oak woodland vegetation although some willow thickets are present in the channel downstream of the Las Flores Pipeline System crossing. The coastal terrace to the west of this crossing supports populations of Gaviota Tar plant. Any clean-up operations in this vicinity should include awareness that Tar plant populations may be present along existing access roads. Containment and clean-up staging should not, to the extent feasible, occur in Tar plant habitat.

The area surrounding the Cañada de las Zorrillas crossing is owned by the Coastal Band of the Chumash Nation and is often utilized for Native American religious purposes. As such this area is considered culturally and spiritually sensitive and all activities conducted in the area must be carefully coordinated with Tribal officials.

Protect the beach by blocking flow at the mouth of the Creek. One alternative would be to construct a sand berm or sandbag dam. This should help contain oil and protect near shore resources. The structure should be high enough to prevent splash over. Another alternative would be to use equipment to form a containment basin or sump. If water is flowing, an underflow dam can be used to maintain flow.

Protect the beach by blocking the U.S. Highway 101 or railroad culverts. The culverts can be blocked with plywood or sandbags. If water is flowing, the flow must be maintained. A filter fence or boom could be installed on the ocean side of the culverts to strain and contain any escaping oil. Underflow dams or a series of underflow dams can be constructed with or without pipes (depending on flows) above the outfall within the creek channel below the spill.

Protect the riparian resources by directing oil to one area for containment. The riparian vegetation will provide natural entrainment of the oil and will slow its progress toward downstream resources. Oil can be directed to one part of the stream by using diversion dikes or booms. These diversion structures can be constructed of any effective material such as plywood planks, straw dikes, sandbags, plastic tarps, or sorbent rolls. If necessary, heavy equipment may be utilized to construct structures large enough to contain a large spill. If large containment berms are constructed, they must contain underflow structures to allow water movement.



15.2.2.11 Cañada San Onofre

| Cañada San Onofre River Crossings                                    |  |  |                                 |
|--|--|--|---------------------------------|
| River  | Access   | Environmental Sensitivity  | Economic / Cultural Sensitivity |
| Cañada San Onofre - about 0.5 miles east of the Gaviota Pump Station | It is accessible along a private ranch road extending east from the pump station across Cañada del Leon, or by traveling west along a private ranch road beginning at the former site of the Vista del Mar temporary school building. The San Onofre crossing occurs across a very narrow channel within a moderately broad grassland bench at the base of two slopes. | San Onofre supports a relatively broad riparian zone comprised of coast live oaks, western sycamores, California bay laurel, white alder and willows. Although listed as a perennial stream, the channel is typically dry with vegetation supported by springs and groundwater. Several populations of Gaviota Tar plant occupy the coastal terraces east and west of Cañada San Onofre in the vicinity of this crossing. Any clean-up operations in this vicinity should include awareness that Tar plant populations may be present. Containment and cleanup staging should not, to the extent feasible, occur in Tar plant habitat. The nearest vehicular access point to the shoreline area adjacent to the outfall of Cañada San Onofre is the Gaviota Interim Terminal, which is about 0.75 miles to the west. If a spill occurred at Cañada San Onofre it would be acceptable to use, with care, equipment for containment. Tree limbs should be trimmed with saws and not broken off by equipment. Oiled tree trunks should be gently cleaned or flushed with water. | None Identified.                |



The Las Flores Pipeline System crosses Cañada San Onofre about 0.5 miles east of the Gaviota Pump Station. It is accessible along a private ranch road extending east from the pump station across Cañada del Leon, or by traveling west along a private ranch road beginning at the former site of the Vista del Mar temporary school building. The San Onofre crossing occurs across a very narrow channel within a moderately broad grassland bench at the base of two slopes. San Onofre supports a relatively broad riparian zone comprised of coast live oaks, western sycamores, California bay laurel, white alder and willows. Although listed as a perennial stream, the channel is typically dry with vegetation supported by springs and groundwater. Several populations of Gaviota Tar plant occupy the coastal terraces east and west of Cañada San Onofre in the vicinity of this crossing. Any clean-up operations in this vicinity should include awareness that Tar plant populations may be present. Containment and cleanup staging should not, to the extent feasible, occur in Tar plant habitat.

The nearest vehicular access point to the shoreline area adjacent to the outfall of Cañada San Onofre is the Gaviota Interim Terminal, which is about 0.75 miles to the west. If a spill occurred at Cañada San Onofre it would be acceptable to use, with care, equipment for containment. Tree limbs should be trimmed with saws and not broken off by equipment. Oiled tree trunks should be gently cleaned or flushed with water.

Protect the beach by blocking flow at the mouth of the Creek. One alternative would be to construct a sand berm or sandbag dam. This should help contain oil and protect near shore resources. The structure should be high enough to prevent splash over. Another alternative would be to use equipment to form a containment basin or sump. If water is flowing, an underflow dam can be used to maintain flow.

Protect the beach by blocking the U.S. Highway 101 or railroad culverts. The culverts can be blocked with plywood or sandbags. If water is flowing, the flow must be maintained. A filter fence or boom could be installed on the ocean side of the culverts to strain and contain any escaping oil. Underflow dams or a series of underflow dams can be constructed with or without pipes (depending on flows) above the outfall within the creek channel below the spill.

Protect the riparian resources by directing oil to one area for containment. The riparian vegetation will provide natural entrainment of the oil and will slow its progress toward downstream resources. Oil can be directed to one part of the stream by using diversion dikes or booms. These diversion structures can be constructed of any effective material such as plywood planks, straw dikes, sand bags, plastic tarps, or sorbent rolls. If necessary, heavy equipment may be utilized to construct structures large enough to contain a large spill. If large containment berms are constructed, they must contain underflow structures to allow water movement.





15.2.2.12 Cañada del Leon

| Cañada del Leon River Crossings  |   |   |                                 |
|--|---|---|---------------------------------|
| River  | Access  | Environmental Sensitivity   | Economic / Cultural Sensitivity |
| Cañada del Leon - about 1000 feet north of the U.S. 101 culvert system beneath the highway | The crossing is readily accessible via U.S. Highway 101 and Chevron's Gerverey Access road No. 3 which is located immediately east of the abandoned Vista del Mar Union School. | The oak woodland dominated stream channel also supports sycamore and cottonwood trees. Several populations of Gaviota Tar plant occupy the coastal terraces east and west of the stream. Any clean-up operations in this vicinity should include awareness that Tar plant populations may be present. Containment and clean-up staging should not, to the extent feasible, occur in Tar plant habitat | None Identified.                |

The Las Flores Pipeline System crosses Cañada del Leon, an intermittent coastal drainage, about 1000 feet north of the U.S. Highway 101 culvert system beneath the highway. The crossing is readily accessible via U.S. Highway 101 and Chevron's Gerverey Access road No. 3 which is located immediately east of the abandoned Vista del Mar Union School. The oak woodland dominated stream channel also supports sycamore and cottonwood trees. Several populations of Gaviota Tar plant occupy the coastal terraces east and west of the stream. Any clean-up operations in this vicinity should include awareness that Tar plant populations may be present. Containment and clean-up staging should not, to the extent feasible, occur in Tar plant habitat





### 15.2.2.13 Cañadas Alcatraz, del Cementario & del Barro

| Cañadas Alcatraz, del Cementario & del Barro River Crossings   |  |   |  |
|--|--|---|--|
| River  | Access   | Environmental Sensitivity   | Economic / Cultural Sensitivity  |
| Cañada's Alcatraz, del Cementario & del Barro - about 1200 feet north of the U.S. 101 culvert systems beneath the highway. | These crossings are accessible via U.S. Highway 101 at Chevron's Gervery access road No. 3 discussed above (Cañada Alcatraz) and at the main access road to Santa Barbara County Fire Station 18 | Cañada's Alcatraz and Cementario are crossed at the base of Santa Ynez Mountain Range and both support oak woodland vegetation species. Along this reach of the stream, Eucalyptus groves have been preserved which support migratory populations of Monarch Butterflies. Eucalyptus groves, intermixed with oak woodland vegetation have been preserved. These groves support migratory populations Monarch Butterflies. Cañada del Barro is largely void of major vegetation, although some willow thickets are located downstream. All these crossings are within the known range of Gaviota Tar plant. Any clean-up operations in this vicinity should include awareness that Tar plant populations may be present. Containment and clean-up staging should not, to the extent feasible, occur in Tar plant habitat | The Cañada Alcatraz stream channel passes through the Gaviota Oil and Gas Plant and the Gaviota Interim Marine Terminal. |

The Las Flores Pipeline System crosses these intermittent coastal drainages about 1200 feet north of the U.S. Highway 101 culvert systems beneath the highway. These crossings are accessible via U.S. Highway 101 at Chevron's Gervery access road No. 3 discussed above (Cañada Alcatraz) and at the main access road to Santa Barbara County Fire Station 18 (Cementario and del Barro).

Canada's Alcatraz and Cementario are crossed at the base of Santa Ynez Mountain Range and both support oak woodland vegetation species. The Canada Alcatraz stream channel passes through the Gaviota Oil and Gas Plant and the Gaviota Interim Marine Terminal. Along this reach of the stream, Eucalyptus groves have been preserved which support migratory populations of Monarch Butterflies. Canada del Cementario flows along the western edges of the facilities referenced above and along this reach of the stream channel Eucalyptus groves, intermixed with oak woodland vegetation have been preserved. These groves support migratory populations Monarch Butterflies. Canada del Barro is largely void of major vegetation, although some willow thickets are located downstream of the crossing. All these crossings are within the known range of Gaviota Tar plant. Any clean-up operations in this vicinity should include awareness that Tar plant populations may be present. Containment and clean-up staging should not, to the extent feasible, occur in Tar plant habitat.



15.2.2.14 Cañadas de la Gaviota, Betty Creek & Las Cruces Creek

| Cañadas de la Gaviota, Betty Creek & Las Cruces Creek River Crossings   |   |  |                                 |
|---|---|--|---------------------------------|
| River   | Access  | Environmental Sensitivity  | Economic / Cultural Sensitivity |
| Cañada de la Gaviota, Betty Creek & Las Cruces Creek (Tributaries) - approximately 0.5 miles upstream of the creek's mouth. | The crossing is accessible via U.S. Highway 101, the Gaviota State Beach Park roadway, the roadway leading to Hollister Ranch and the Chevron valve vault access roadway. The pipeline also crosses two tributaries to Gaviota Creek (Betty Creek and Las Cruces Creek), approximately two miles above its mouth. These crossings are accessible via State Highway 1 (west of U.S. Highway 101), San Julian Road and an access road to Las Cruces Ranch which extends beneath State Highway 1. Gaviota Creek enters the Pacific Ocean at Gaviota State Beach Park where the creek creates a lagoon. | <p>Cañada de la Gaviota is one of the larger coastal streams in Santa Barbara County. It is a perennial stream with flows estimated to range from 6.5 to 12 cfs. The pipeline crosses the main channel above a large willow thicket and stream gradient below this pipeline crossing is relatively gentle. The lower section of the creek is characterized by long, shallow pools with bottom substrates of sand and fine gravel. Fish habitat in the creek is good relative to many of the other coastal streams.</p> <p>The crossing of Betty Creek, a tributary of Cañada de la Gaviota, occurs south of Highway 1 and north of San Julian Road, all within Gaviota State Park. The crossing occurs in a relatively narrow channel within a moderate stream gradient. Fish and wildlife habitat is present along this segment of the creek with several pools and riffles as well as cover from riparian trees such as oak, willow and sycamore as well as a variety of shrubs. Las Cruces Creek, the other Cañada de la Gaviota tributary, occurs north of State Highway 1 on the Las Cruces Ranch. Stream gradient is moderate. Fish and wildlife habitat are limited by low and intermittent flows and sparse vegetation which is dominated by willow thickets. Sensitive/protected resources known or expected to occur at, near or downstream of these LAS FLORES PIPELINE SYSTEM crossings are listed below</p> | None identified.                |

The pipeline crosses Cañada de la Gaviota approximately 0.5 miles upstream of the creek's mouth. The crossing is accessible via U.S. Highway 101, the Gaviota State Beach Park roadway, the roadway leading to Hollister Ranch and the Chevron valve vault access roadway. The pipeline also crosses two tributaries to Gaviota Creek (Betty Creek and Las Cruces Creek), approximately two miles above its mouth. These crossings are accessible via State Highway 1 (west of U.S. Highway 101), San Julian Road and an access road to Las Cruces Ranch which extends beneath State Highway 1. Gaviota Creek enters the Pacific Ocean at Gaviota State Beach Park where the creek creates a lagoon.

Cañada de la Gaviota is one of the larger coastal streams in Santa Barbara County. It is a perennial stream with flows estimated to range from 6.5 to 12 cfs. The pipeline crosses the main channel above a large willow thicket and stream gradient below this pipeline crossing is relatively gentle. The lower section of the creek is characterized by long, shallow pools with bottom substrates of sand and fine gravel. Fish habitat in the creek is good relative to many of the other coastal streams. The mouth of Cañada de la Gaviota contains a freshwater/brackish lagoon that provides habitat for a variety of aquatic species.

The crossing of Betty Creek, a tributary of Cañada de la Gaviota, occurs south of Highway 1 and north of San Julian Road, all within Gaviota State Park. The crossing occurs in a relatively narrow channel within a moderate stream gradient. Fish and wildlife habitat is present along this segment of the creek with several pools and riffles as well as cover from riparian trees such as oak, willow and sycamore as well as a variety of shrubs.

The Las Flores Pipeline System crossing of Las Cruces Creek, the other Cañada de la Gaviota tributary, occurs north of State Highway 1 on the Las Cruces Ranch. Stream gradient is moderate. Fish and wildlife habitat are limited by low and intermittent flows and sparse vegetation which is dominated by willow thickets.

If a spill occurred in Gaviota Creek or at its upstream tributaries (Betty Creek or Las Cruces Creek), the following actions are recommended. Generally, hand techniques or techniques minimizing disturbance to surrounding areas are desirable for clean-up in this biologically sensitive area. The photos depict potential access and locations for containment structures. Final techniques will be determined at the time of the spill in consultation with appropriate authorities.

If the spill occurs during periods of high flow it is likely to reach resources downstream including Gaviota State Beach. Therefore, containment as close to the spill site as possible (with priority given to protecting the beach, the lagoon, and the willow thicket) should be attempted.

Protect the beach by fortifying the existing natural sandbar at the outfall of the Gaviota Creek Lagoon. One alternative would be to construct a sandbag dam to raise the existing sandbar. This should help contain oil to the immediate areas. The structure should be high enough to

prevent splash over. Another alternative would be to use equipment to form a levee between the lagoon and the ocean. If water is flowing, an underflow dam can be used to maintain flow. Immediate notification would be made to Clean Seas, Inc., that a spill has occurred and that equipment, manpower and resources at their disposal should be immediately dispatched.

Protect the lagoon by blocking the inlet to the road culvert beneath the beach access road. The culvert can be blocked with plywood or sandbags. If water is flowing, the flow must be maintained. A filter fence or boom could also be installed on the lagoon side of the culvert to strain and contain any escaping oil. Underflow dams or a series of underflow dams can be constructed with or without pipes (depending on flows) above the lagoon within the creek channel below the spill.

Protect the willow thicket and riparian resources by directing oil to one area for containment. The willows will provide natural entrainment of the oil and will slow its progress to downstream resources. Oil can be directed to one part of the willows by using diversion dikes or booms. These diversion structures can be constructed of any effective material such as plywood planks, straw dikes, sand bags, plastic tarps, or sorbent rolls. If necessary, heavy equipment may be utilized to construct structures large enough to contain a large spill. If large containment berms are constructed, they must contain underflow structures to allow water movement.





15.2.2.15 Santa Ynez River and Lagoon

| Santa Ynez River and Lagoon River Crossings   |   |   |                                 |
|---|---|---|---------------------------------|
| River   | Access  | Environmental Sensitivity   | Economic / Cultural Sensitivity |
| Santa Ynez River and Lagoon - southwest of Buellton, California approximately 0.5 miles west of the U.S. 101 Bridge | The crossing is accessible via U.S. Highway 101 and either State Highway 246 west (access to north bank of the river) or Santa Rosa Road (access to the south bank of the river). | <p>The channel is broad, about 0.25 miles wide. Flows are normally perennial, but the main channel may stop flowing in dry years. Higher flows are maintained in the dry season by periodic releases from Cachuma Lake. Scour potential is good as evidenced by the braided channel and size of bed material, which at the crossing, ranges from sand to cobble. The Santa Ynez River supports a large underground basin used for public water supply and irrigation.</p> <p>The pipeline crossing is 24 miles above the river's mouth and the Santa Ynez Estuary.</p> <p>The Santa Ynez River contains the well-developed and prolific riparian zone of any stream crossed by the pipeline, vegetation includes willow scrubland and willow, cottonwood, and sycamore woodlands. Common scrub species include arroyo willow, red willow and Baccharis glutinosa. Immediately downstream of the pipeline crossing, the main channel of the river forms a lagoon which is fed by both surface and groundwater flows. The lagoon is believed to be a permanent feature of the riverbed even during low flows. and provides habitat for a variety of species including several species that are regionally or locally rare and are known to occur.</p> | None identified.                |



The pipeline crosses the Santa Ynez River southwest of Buellton, California approximately 0.5 miles west of the U.S. 101 Bridge. The crossing is accessible via U.S. Highway 101 and either State Highway 246 west (access to north bank of the river) or Santa Rosa Road (access to the south bank of the river). The channel is broad, about 0.25 miles wide. Flows gauged 7 miles downstream at Coopers Reef averaged 27 cfs for the 22-year period of 1954 to 1976. Maximum flows in this period were recorded for January 1969 at 81,000 cfs. Flows are normally perennial, but the main channel may stop flowing in dry years. Higher flows are maintained in the dry season by periodic releases from Cachuma Lake. Scour potential is good as evidenced by the braided channel and size of bed material, which at the pipeline crossing, ranges from sand to cobble. The Santa Ynez River supports a large underground basin used for public water supply and irrigation. The pipeline crossing is 24 miles above the river's mouth and the Santa Ynez Estuary.

The Santa Ynez River contains the well-developed and prolific riparian zone of any stream crossed by the pipeline in Santa Barbara County, although in recent years considerable riparian vegetation has been removed from the riverbed to reduce the potential for over-bank flooding.

Still, the Santa Ynez River contains much of the riparian habitat present in Santa Barbara County. This is due in part to the continuous flows in the river maintained by water releases from Cachuma Lake and most recently because of excessive winter rainfall patterns. Major vegetation at the pipeline crossing and occurring in the immediate vicinity of the pipeline includes willow scrubland and willow, cottonwood, and sycamore woodlands. Common scrub species include arroyo willow, red willow and *Baccharis glutinosa*. Common trees include western sycamore and Fremont cottonwood. The high banks contain thickets of elderberry, willow, and poison oak. Immediately downstream of the pipeline crossing, the main channel of the river forms a lagoon which is fed by both surface and groundwater flows. The lagoon is believed to be a permanent feature of the riverbed even during low flows.

Several of these lagoons and pools occur downstream of the crossing along the main channel of the Santa Ynez River. These permanent ponds and lagoons provide habitat for a variety of species including several species that are regionally or locally rare and are known to occur. These include the willow flycatcher, tree swallow, Swainson's thrush, warbling vireo, yellow warbler, Wilson's warbler, yellow-breasted chat, blue grosbeak, black shouldered kite, Cooper's hawk, western gray squirrel, western pond turtle, and California red-legged frog. Common fish species include arroyo chub, mosquito fish, and stickleback. During high water periods, gamefish from Cachuma Lake may be washed into the upper portions of the river. These species include rainbow trout, channel catfish, sunfishes, and crappies. Steelheads are thought to spawn in the lowest reaches of the river.

Containment and clean-up techniques used at the Santa Ynez River will depend on flow characteristics at the time of the spill. The photos depict potential access and locations for containment structures. The Santa Ynez River is a large river with a wide braided channel.

The priority, biologically, is to protect the lagoon on the north bank of the river downstream of the pipeline crossing. Construct diversion dikes/berms around the lagoon to prevent or minimize oil from entering the lagoon. Use diversion dikes to divert oil to cleared and open areas within the riverbed. Berms can be formed with sandbags or with heavy equipment utilizing available riverbed materials.

During high flows, spilled oil could move a considerable distance downstream. Therefore, containment a distance downstream is advised. A possible location for containment is located off of Mail Road five miles downstream of the pipeline crossing.

Booms will be necessary at high flows. Booms could be placed along the river's edge to protect stream banks. Booms and skimmers could be used for controlling and cleaning up oil.

A boom should be located at the beginning of the lagoon to minimize oil contamination. If this is not possible a boom could be placed below the lagoon, thus containing oil within the lagoon and protecting other lagoon and stream resources below the crossing.

A diversion dike and containment berm should be constructed downstream of the crossing near Mail Road. This area of the river has a controlled channel and is near pastureland that could be converted into a containment pond/sump pit. It also has good access for large equipment and could contain any oil not contained near the crossing.

This final containment structure should be constructed large enough to contain all spilled oil and prevent it from reaching Lompoc or the Santa Ynez River Estuary.

If a sump pit is necessary to contain oil, it should have a plastic liner to prevent oil from seeping into streambed gravels. Ideally, sump pits should be located outside of alluvial gravels on relatively impervious substrates.



#### 15.2.2.16 Sisquoc - Cuyama - Santa Maria River

| Sisquoc - Cuyama - Santa Maria River Crossings  |  |  |                                 |
|---|--|--|---------------------------------|
| River   | Access   | Environmental Sensitivity  | Economic / Cultural Sensitivity |
| <b>Sisquoc - Cuyama - Santa Maria River System</b> - located about 8 miles downstream | The pipeline crossing is accessible via existing County roads. (Foxen Canyon and Tepesquet) and the Sisquoc Ranch/Winery Road. | The Sisquoc-Cuyama-Santa Maria River System includes the Sisquoc River from its origin in the San Rafael Mountains and the Cuyama River from its origin in the Cuyama Valley and the adjacent Caliente Hills. The confluence of Sisquoc and Cuyama Rivers, which collectively form the Santa Maria River to its outfall at the Pacific Ocean. At this confluence, the Sisquoc River becomes a natural river, not subject to mining activities described below. The natural flow of the Cuyama River has been altered by the construction and utilization of the Twitchell Reservoir which is located about 6 miles upstream along the Cuyama River from its confluence with the Sisquoc River. The Sisquoc River, from the crossing downstream to near the river's confluence with the Cuyama River, is actively mined for naturally occurring sand and gravel deposits. | None identified.                |

The Sisquoc-Cuyama-Santa Maria River System includes the Sisquoc River from its origin in the San Rafael Mountains and the Cuyama River from its origin in the Cuyama Valley and the adjacent Caliente Hills. The pipeline crossing is accessible via existing County roads. and the Sisquoc Ranch / Winery Road. The confluence of Sisquoc and Cuyama Rivers, which collectively form the Santa Maria River to its outfall at the Pacific Ocean, is located about 8 miles downstream of the pipeline crossing of the Sisquoc River Channel. At this confluence, the Sisquoc River becomes a natural river, not subject to mining activities described below. The natural flow of the Cuyama River has been altered by the construction and utilization of the Twitchell Reservoir which is located about 6 miles upstream along the Cuyama River from its confluence with the Sisquoc River. The Sisquoc River, from the pipeline crossing downstream to near the river's confluence with the Cuyama River, is actively mined for naturally occurring sand and gravel deposits.

Shoreline access to the Santa Maria River is via West Main Street through the City of Guadalupe.

The Sisquoc River is a large river with a wide accessible channel. The channel has been disturbed by historical and ongoing gravel operations at the pipeline crossing. Little or no riparian vegetation is present at the crossing, but some sensitive resources may occur a few miles downstream.

An underflow blocking dam should be constructed downstream in a narrow location such as at the Tepesquet Road crossing. Alternately, a containment boom could be deployed at this location as well as other locations downstream. In extreme flow conditions, a boom could be deployed and anchored by the abutments of the Garey Bridge, about two miles downstream of the pipeline crossing.

The Tepesquet Creek Crossing is located north of the Sisquoc River Valley floodplain, east of Santa Maria and west of Tepusquet Road crossing. The creek, at this location, is a narrow channel with good access off Tepesquet Road. The gradient of the creek is gentle at this location and containment conditions are good unless flows are unusually high. The pipeline crosses the creek approximately 0.7 miles north of the creek outfall at the Sisquoc River. 1. Oil can be contained on site: by constructing an earthen dike with heavy equipment. Further, given the distance of its outfall at the Sisquoc River, there are opportunities to block flow downstream of the crossing or even within the riverbed north of the typically flowing river channel.

Removing oiled vegetation is generally not recommended since it will increase erosion potential in the stream. If removal is deemed necessary, vegetation should be cut at ground level to maintain root structure support in the soil and possibly encourage stump sprouting.

Depending on flows, oil can be contained by placing underflow blocking dams or booms downstream from the spill. Booms can be deployed off Tepusquet Road to contain oil or divert it away from stream banks, if possible. Another alternative would be to construct a sandbag dam to raise the riverbed to help contain oil within the immediate area. The structure should be high enough to prevent splash over. Depending upon timing and availability equipment could be used to form a containment basin or sump.

Protect the lagoon by blocking the road culvert under Tepusquet road. The culvert could be blocked with plywood or sandbags. If water is flowing, the flow must be maintained. A filter fence or boom could be installed on the downstream side of the road culvert to strain and contain any escaping oil. Underflow dams or a series of underflow dams can be constructed with or without pipes (depending on flows) above the Sisquoc River within the creek channel below the spill.

Protect the riparian vegetation by directing oil to one area for containment. The vegetation will provide natural entrainment of the oil and will slow its progress to downstream resources. Oil can be directed to one part of the riparian area by using diversion dikes or booms. These diversion structures can be constructed of any effective material such as plywood planks, straw dikes, sandbags, plastic tarps, or sorbent rolls. If necessary, heavy equipment may be utilized to construct structures large enough to contain a large spill. If large containment berms are constructed, they must contain underflow structures to allow water movement.



15.2.2.17 Cuyama River

| Cuyama River Crossings   |   |   |   |
|--|---|---|---|
| River  | Access  | Environmental Sensitivity   | Economic / Cultural Sensitivity   |
| <b>Cuyama River</b> – Western edge of the Cuyama Valley near HWY 166 bridge. | The pipeline crossing is accessible immediately off of State Highway 166 about 20 miles west of Cuyama, California. | The crossing is not biologically sensitive with habitat consisting primarily of scrubland.<br><br>Sensitive bird and aquatic species are present. | The crossing occurs in pasturelands which are bordered on the south by a steep ridge of the Sierra Madre Mountains. |

The crossing of the Cuyama River occurs at the western edge of the Cuyama Valley near the Highway 166 Bridge. The pipeline crossing is accessible immediately off of State Highway 166 about 20 miles west of Cuyama, California. The crossing occurs in pasturelands which are bordered on the south by a steep ridge of the Sierra Madre Mountains. The crossing is not biologically sensitive with habitat consisting primarily of scrubland species such as *Baccharis glutinosa*, arrow weed, and rabbit brush. Fish habitat quality is poor in most of the Cuyama River because of the lack of pools, minimal cover, and extensive sedimentation. Fish species potentially occurring in the Cuyama River include arroyo chub, California roach, and speckled dace.

Downstream of the pipeline crossing, riparian vegetation primarily consists of willows, cottonwood, and sycamore occur. The river extends west to the Twitchell Reservoir which is about 20 miles downstream of the pipeline crossing. If crude oil reached Twitchell Reservoir it could be cleaned up using traditional freshwater techniques, after consulting with the appropriate agencies.

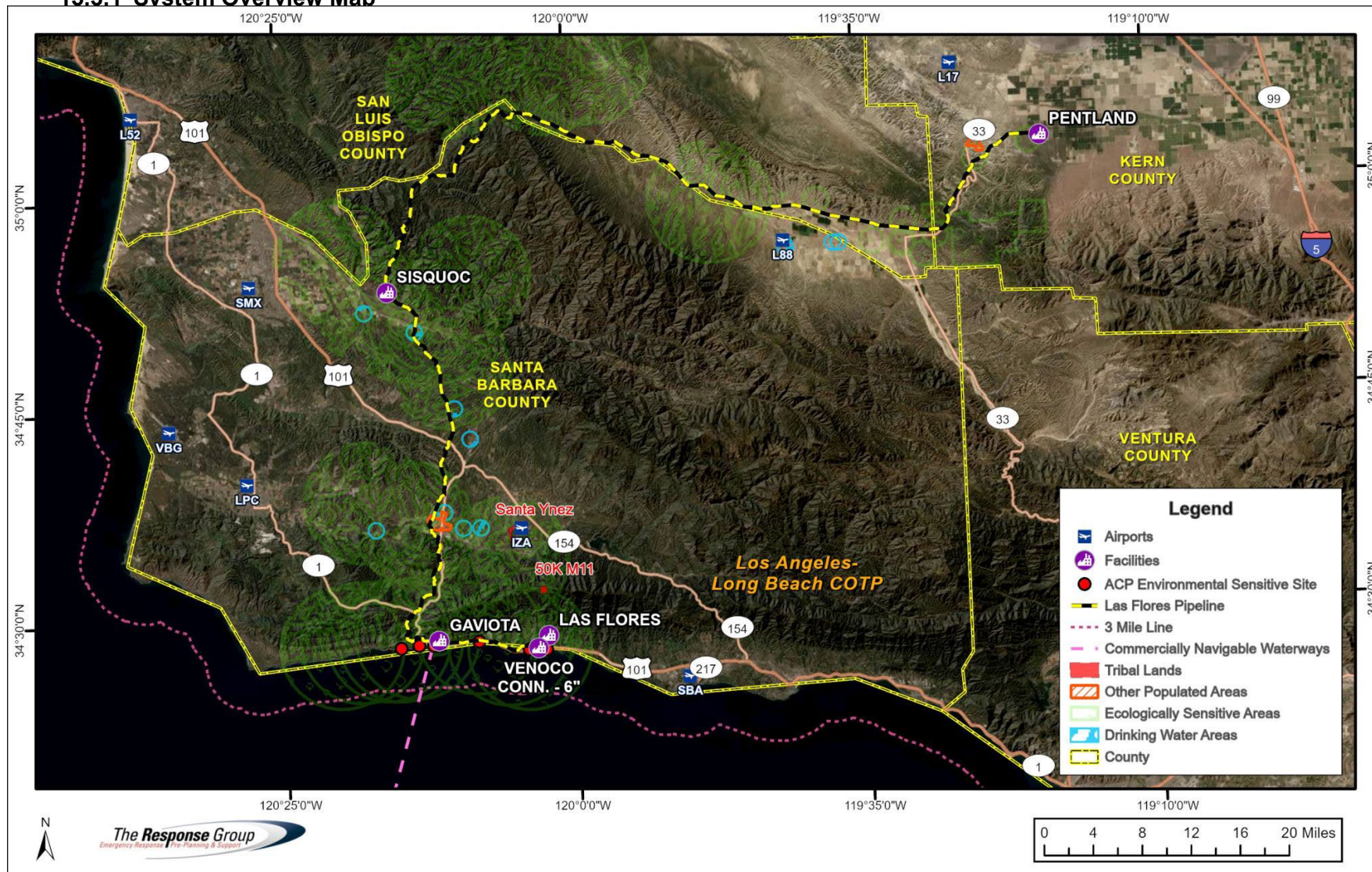
The Cuyama River Crossing is located in the western end of the Cuyama Valley near the old Highway 166 bridge crossing. The river at this location is a wide silty channel with good access off Highway 166. The gradient of the river is fairly gentle at this location and containment conditions are good unless flows are unusually high.

Depending on flows, oil can be contained by placing underflow blocking dams or booms downstream from the spill. Booms can be deployed off of Highway 166 bridges to contain oil or divert it away from stream banks. If oil reaches Twitchell Dam it can be contained by boats and booms.



## 15.3 Las Flores Pipeline Corridor Area Maps

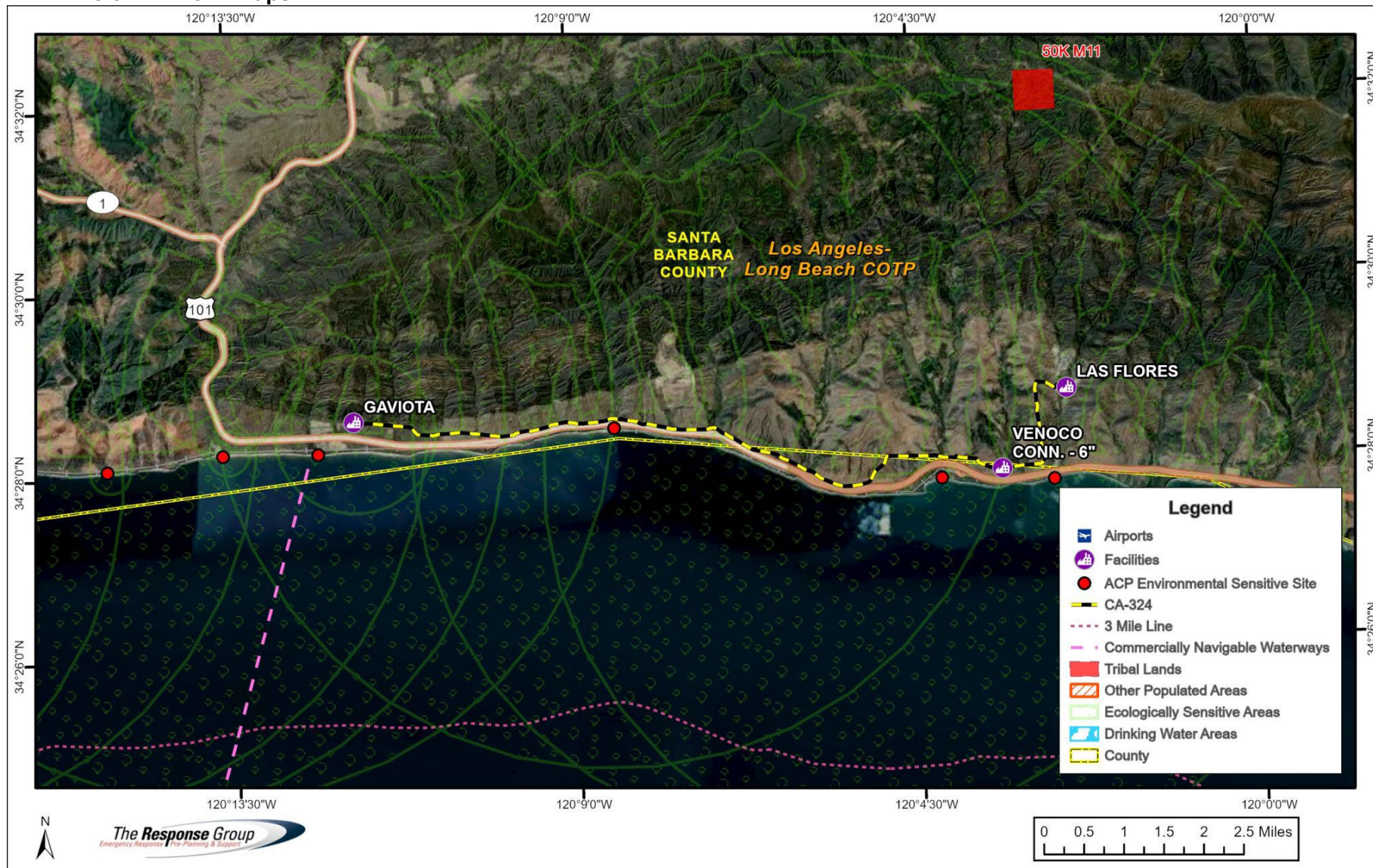
### 15.3.1 System Overview Map







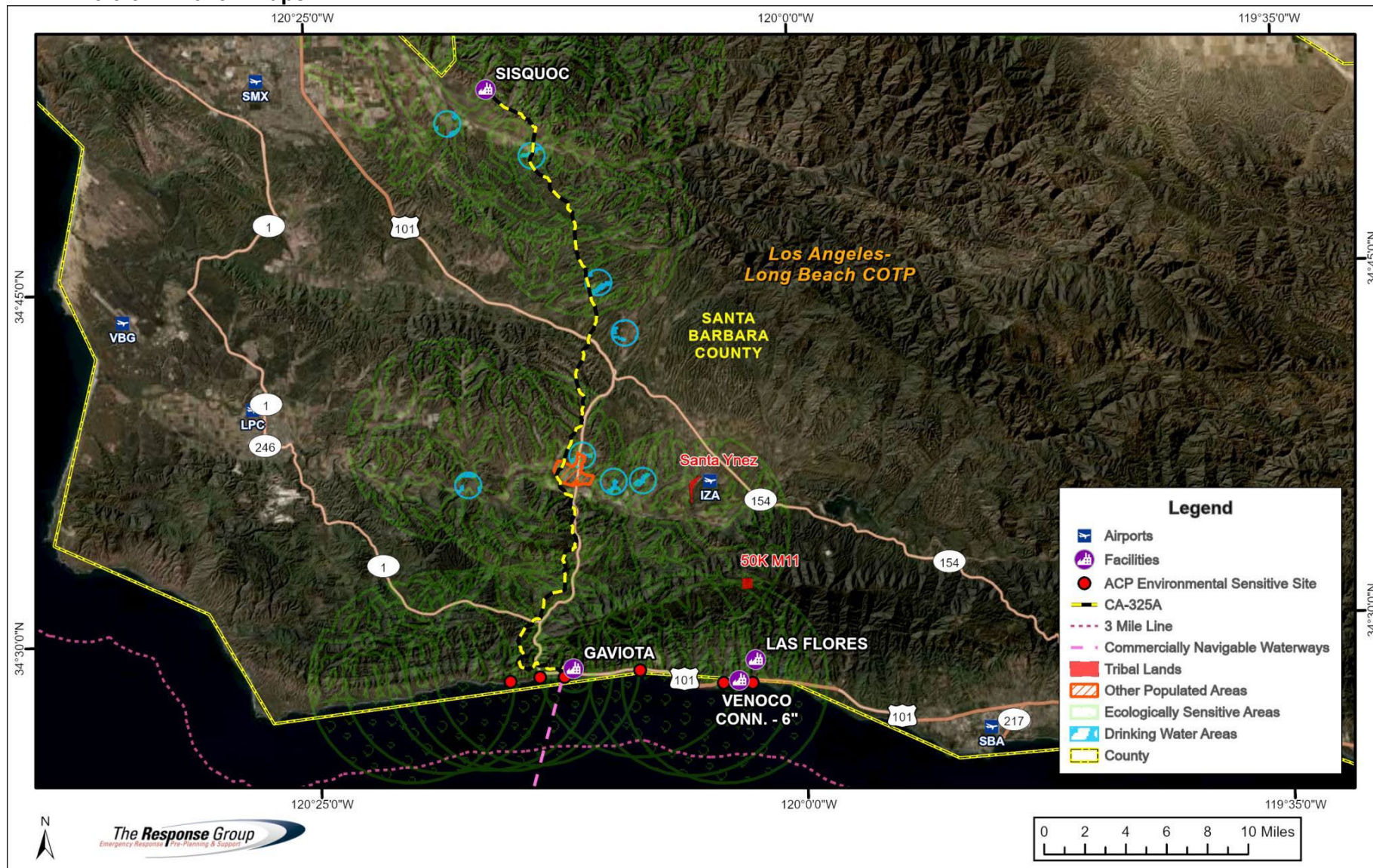
#### 15.3.2 CA-324 Maps







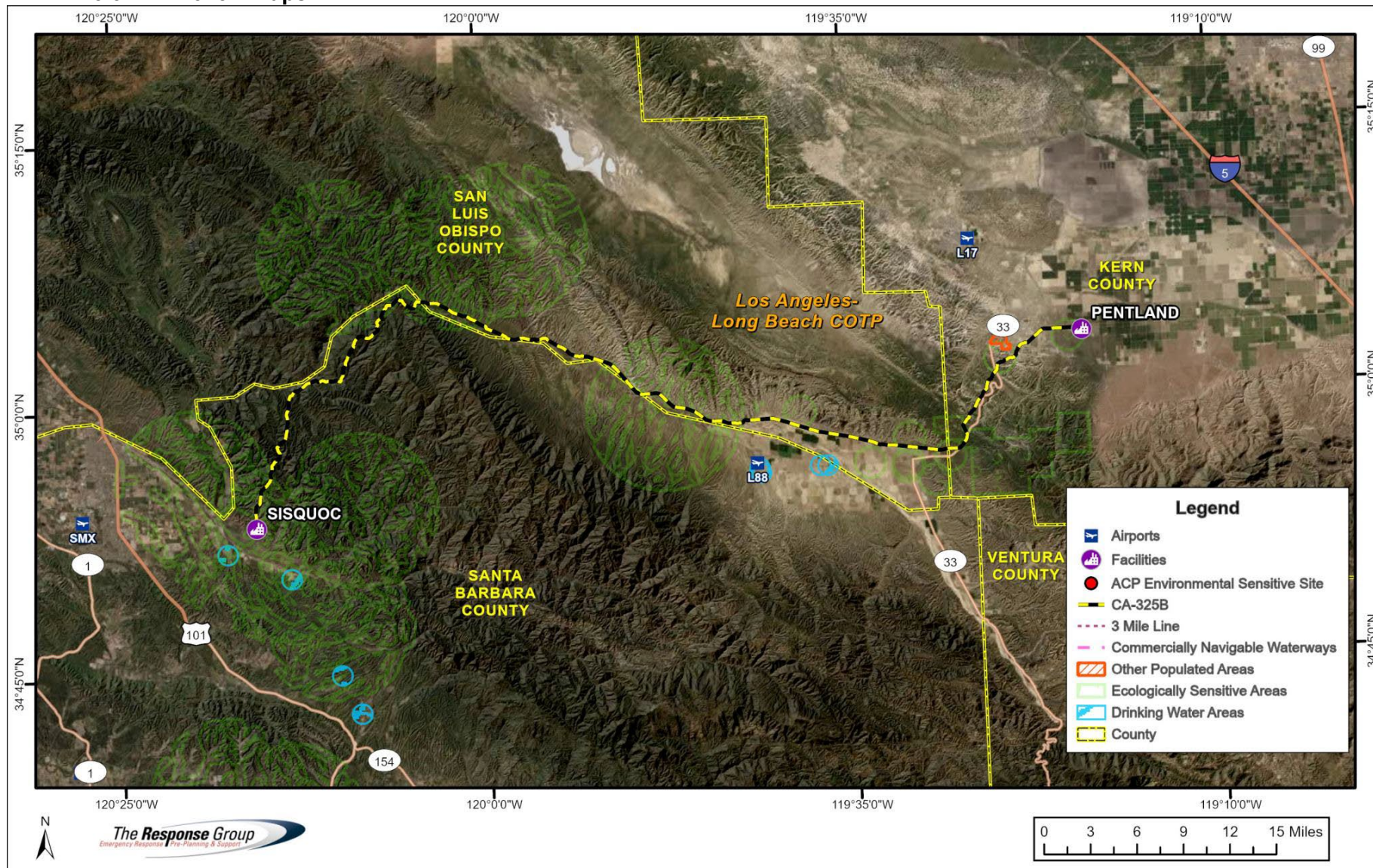
#### 15.3.3 CA-325A Maps







#### 15.3.4 CA-325B Maps





#### 16.1 Truck Line Charts

