



AMERICAN PETROLEUM INSTITUTE

INLAND OIL SPILL PREPAREDNESS AND RESPONSE



PREVENTION

Our priority is prevention. We take extensive precautions to prevent spills from ever occurring.

- Proactive inspections and preventive maintenance
- 24/7 monitoring of assets
- Rapid shutdown capabilities
- Emergency planning and preparation with partners and stakeholders
- Publication and dissemination of recommended practices

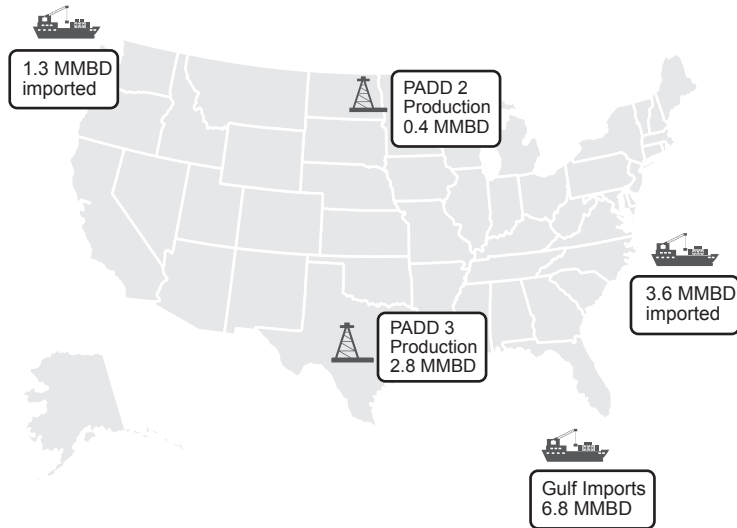


INCREASED DOMESTIC PRODUCTION

The increase in domestic crude oil and natural gas production has resulted in an increase in their transportation across the inland United States. The oil and gas industry has maintained its commitment to safety with more than 99.999%^{1,2} of these transported products arriving safely via pipeline.

2005

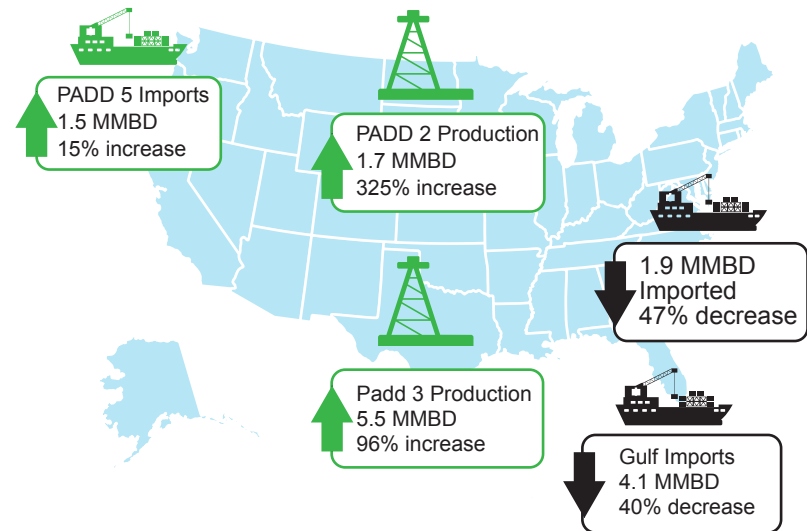
Pre-Shale (2005) Crude Oil Supply^{3,4}:
Production and Imports Focused on Coasts



Consumption = 20.8 MMBD
Production = 6.9 MMBD
Imports = 13.7 MMBD

2016

Post-Shale (2016) Crude Oil Supply^{3,4}:
Production and Imports Shift from Coast to Heartland



Consumption = 19.7 MMBD
Production = 12.4 MMBD (79% increase)
Imports = 10.1 MMBD (27% decrease)

Source 1: U.S. Federal Energy Regulatory Commission, Barrels Delivered by U.S. Pipeline (2011-2015)

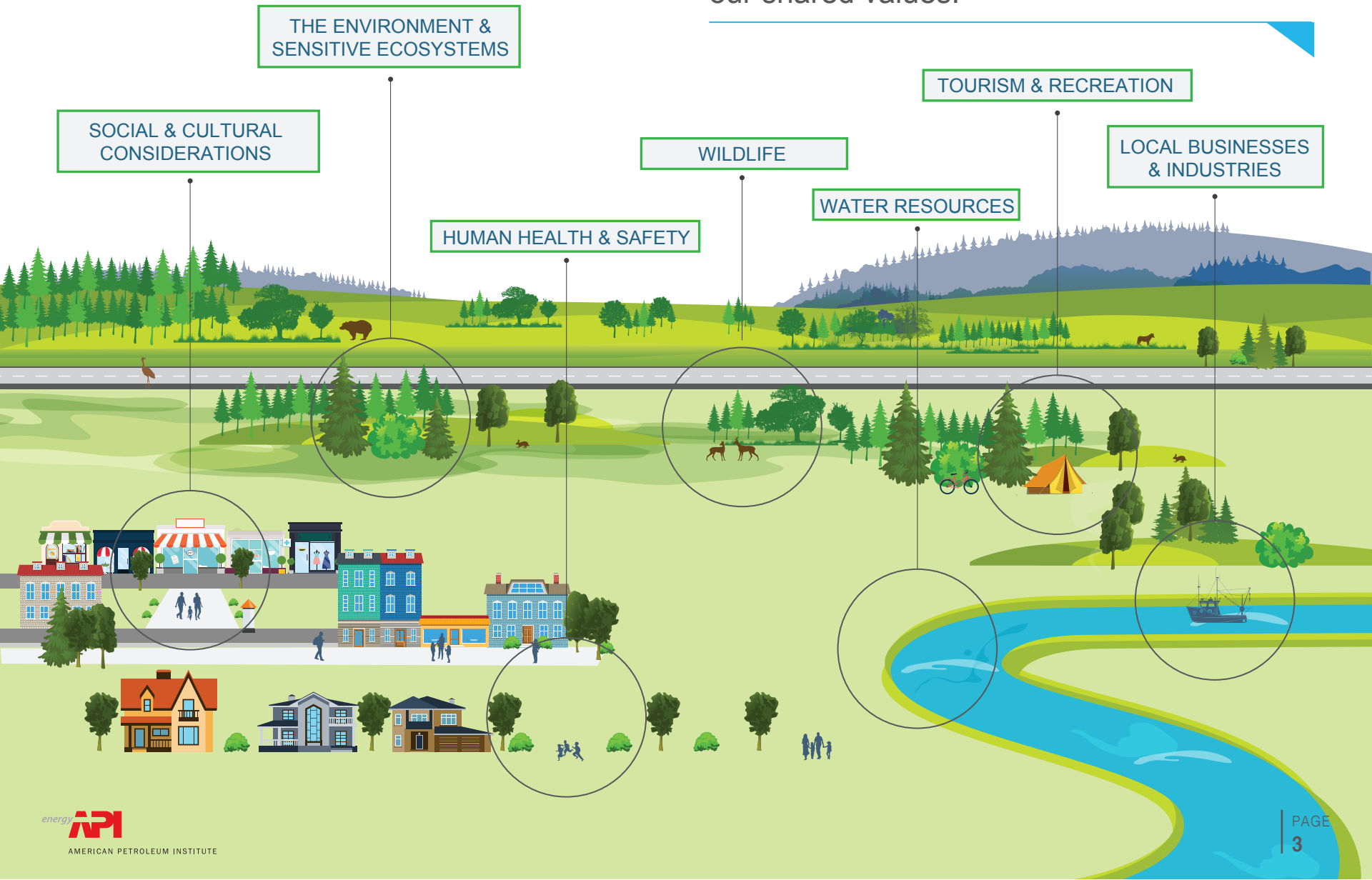
Source 2: U.S. Pipeline and Hazardous Materials Administration, Pipeline Barrels Released (2011 - 2015)

Source 3: U.S. Energy Information Administration, Crude and Petroleum Products Supply and Disposition (2005-2016)

Source 4: U.S. Energy Information Administration, Crude and Petroleum Products PAD District Imports (2005-2016)

OUR SHARED VALUES

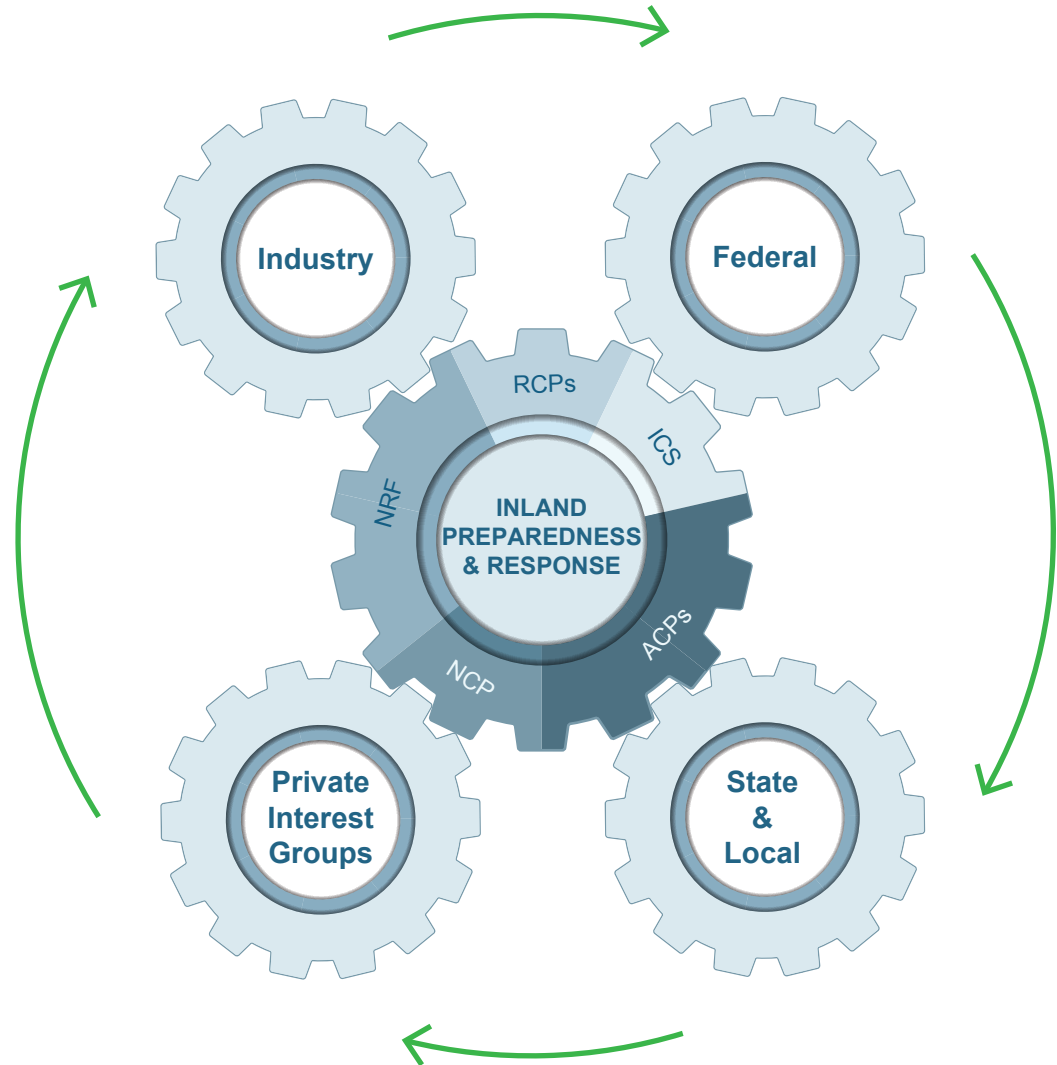
We implement robust inland preparedness and response processes in order to protect our shared values.



SYSTEM VIEW

The oil and gas industry operates within a larger preparedness and response system made up of both public and private stakeholders. The system also includes components such as the National Response Framework (NRF) and National Incident Management System (NIMS), which are facilitated through the Regional Contingency Plans (RCPs) and Area Contingency Plans (ACPs). The response community uses the Incident Command System (ICS) to staff and execute a response, using the plans to guide response efforts.

Working as a part of this larger system, we are able to leverage extensive resources and expertise to protect our shared values.



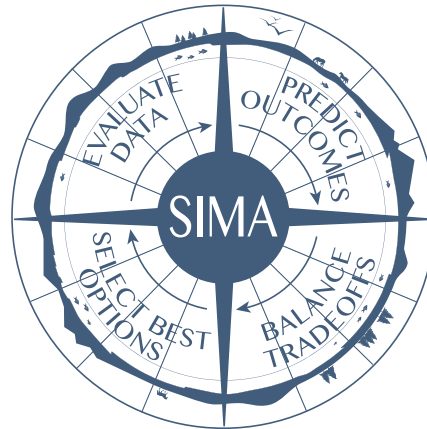
PRINCIPLES

The oil and gas industry and response partners use a set of guiding principles to inform the SIMA process as part of a response in order to choose the best response options contained in the applicable Response Plan. This ensures the most effective response, minimizing damage to the environment.

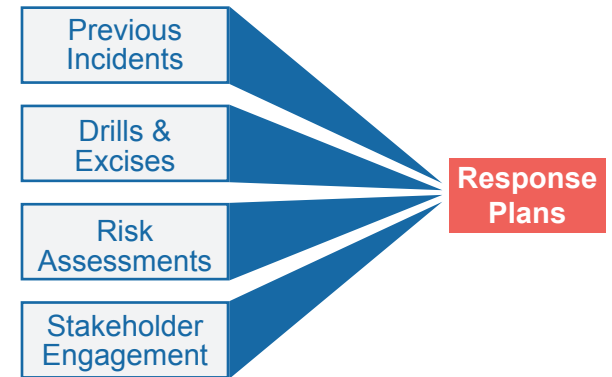
GUIDING PRINCIPLES

- ✓ **Protect the safety & health of people**
- ✓ **Stop the source of a spill as quickly as possible**
- ✓ **Minimize the spread of oil**
- ✓ **Minimize oil getting into water**
- ✓ **Minimize environmental and community impact**

SPILL IMPACT MITIGATION ASSESSMENT (SIMA)*



CONTINUOUS IMPROVEMENT




Lessons learned inform response plans

* Formerly Net Environmental Benefit Analysis (NEBA)

PARTNERSHIPS

Industry works with the stakeholders that make up the inland preparedness and response system in order to maximize the expertise and resources of the whole.

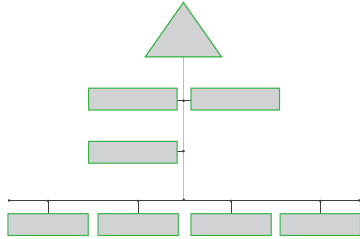


Response Plan

APPROVED PROCESSES



DRILLS & EXERCISES



INCIDENT COMMAND SYSTEM



LOCAL COMMUNITY & FIRST RESPONDER ENGAGEMENT

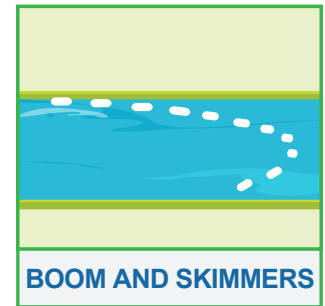
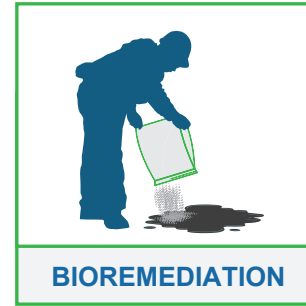
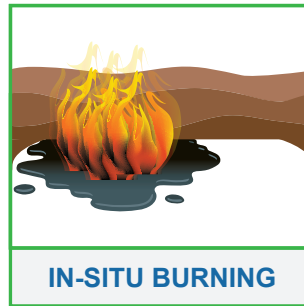
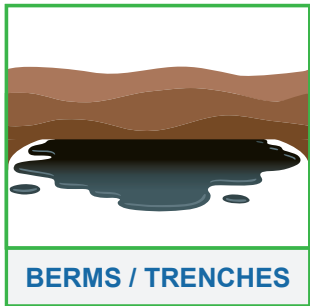


CONFERENCES & EVENTS

RESOURCES

We use resources and response techniques specifically designed to address the needs of each type of inland response.

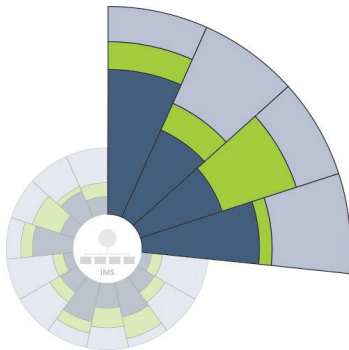
RESPONSE TOOLKIT



Additional resources and processes allow us to scale our response appropriately:

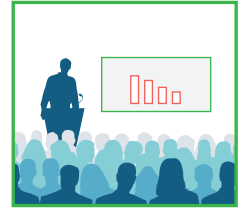
CASCADING RESOURCES

OIL SPILL REMOVAL ORGANIZATIONS

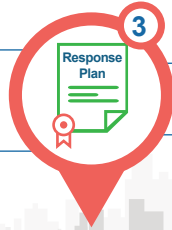


CASE STUDY | PRIOR TO AN INCIDENT

The following case study demonstrates how our principles, partnerships, and resources work together, both before and after an incident.



Industry works with stakeholders at conferences and events



Industry works with stakeholders and partners to produce response plans specific to the region

Industry works with regulators to approve response plans



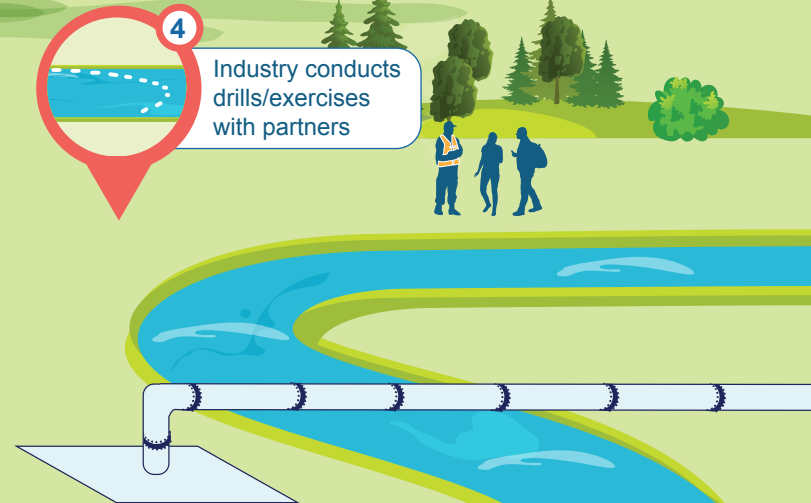
Industry conducts risk assessments



Industry works with local communities and first responders

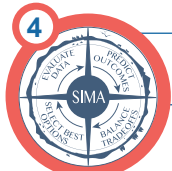


Industry conducts drills/exercises with partners



CASE STUDY | INITIAL RESPONSE

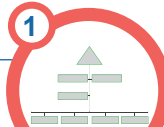
When a local utility company accidentally ruptures a pipeline, the prior planning and coordination of the preparedness and response system is activated to respond to the incident.



Responders utilize SIMA



Develop Incident Action Plan (IAP) with response partners

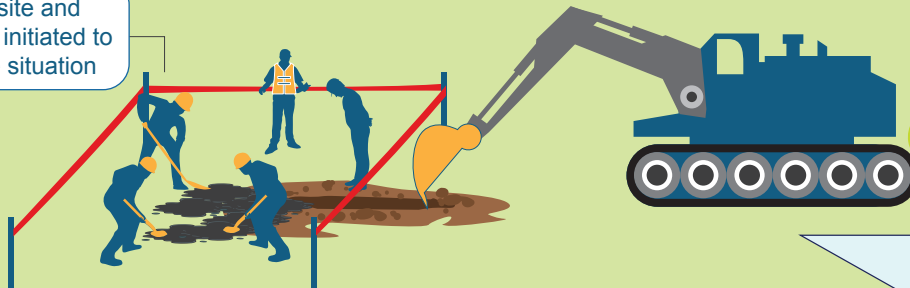


Stand up ICS with response partners

2 Resources cascade to the incident location



3 Secure the site and response is initiated to stabilize the situation

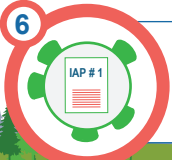


CASE STUDY | CONTINUED RESPONSE

With the incident under control, responders continue the cleanup to protect the safety of people and the environment. Lessons learned from the incident will be incorporated into future preparedness and response activities.



5 Responders utilize SIMA



6 Establish response goals with response partners based on common values

1 Incorporate lessons learned



4 Calibrate response resources and adjust for realities of response

3 Monitor the environment


2 Response resources continue to clean up, utilizing plans and goals established by response partners


WORKING TOGETHER

As our nation's oil landscape continues to change, our preparedness and response efforts evolve in kind, addressing increases in production and transportation.

Inland preparedness and response efforts require extensive coordination and cooperation to ensure the protection of our shared values.

Help make these efforts effective by:

	Understanding what preparedness and response measures are currently in place in your community
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	Joining us in training and exercises
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	Engaging in the development of response plans and processes
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GLOSSARY

ACP – Area Contingency Plans

The impacts of an oil spill can vary widely, from isolated incidents that are contained on-site to incidents that have a local, regional, national, or international impact. Contingency plans are developed to address the specific geographic scope of the incident, which include Area Contingency Plans. Such plans enable responders to address incidents by helping to identify and coordinate the activities of the different government agencies and private organizations involved in the response. Different regions vary in their nomenclature and geographic scope of these response plans; please see RCPs below.

Cascading Resources

Every response is different and requires various types and numbers of resources. The concept of cascading resources gives the response organization the flexibility to expand or contract as the needs of the response change within the framework of the Incident Command System.

RCP – Regional Contingency Plans

Much like Area Contingency Plans (ACPs), RCPs are developed to address the specific geographic scope of the incident at a broader level. Different regions may vary in their nomenclature as it relates to RCPs. Such plans enable responders to address incidents by helping to identify and coordinate the activities of the different government agencies and private organizations involved in the response.

GLOSSARY

IAP – Incident Action Plans

An Incident Action Plan (IAP) is an organized course of events that addresses all phases of incident control within a specified time. An IAP is necessary to effect successful outcomes in any situation, especially emergency operations, in a timely manner.

ICS – Incident Command System

The ICS is a management system designed to enable effective and efficient domestic incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, designed to enable effective and efficient domestic incident management.

NRF – National Response Framework

The NRF is a guide to how the Nation responds to all types of disasters and emergencies. It is built on scalable, flexible, and adaptable concepts identified in the National Incident Management System to align key roles and responsibilities across the Nation. The NRF describes specific authorities and best practices for managing incidents that range from the serious but purely local to large-scale terrorist attacks or catastrophic natural disasters.

GLOSSARY

NCP – National Contingency Plan

The National Oil and Hazardous Substances Pollution Contingency Plan, more commonly called the National Contingency Plan or NCP, is the federal government's blueprint for responding to both oil spills and hazardous substance releases. The NCP is the result of efforts to develop a national response capability and promote coordination among the hierarchy of responders and contingency plans.

OSRO – Oil Spill Removal Organization

An Oil Spill Removal Organization is contracted by oil and gas companies to clean up spills or to prove to regulators that the company has the capabilities to respond to a spill, should one occur. These companies work with industry to understand response options and the needs of a particular spill; please see 'cascading resources' above.

SIMA – Spill Impact Mitigation Assessment

Spill Impact Mitigation Assessment is a tactical approach developed to allow operators in oil and gas to evaluate response options in a geographic area based on different spill scenarios. This has been developed to better guide operators and response partners when performing a Net Environmental Benefit Analysis (NEBA).

Planning P

The Planning “P” depicts the stages in the incident action planning process. The leg of the “P” includes the initial steps to gain awareness of the situation and establish the organization for incident management. Although maintaining situational awareness is essential throughout the life cycle of the incident, the steps in Phase 1 are done only one time. Once they are accomplished, incident management shifts into a cycle that of planning and operations, informed by ongoing situational awareness, that continues and is repeated each operational period.

