

# ASSESSING THE IMPACTS OF OIL: FIRST STEPS

## Who is assessing the impacts of oil?

Efforts to understand the impacts of oil on ocean life, coastal habitats, and human use began shortly after the spill through the **Natural Resource Damage Assessment (NRDA)** process.

Through NRDA, state and federal partners called "Trustees" are examining oil in the open water, near shorelines, and on land to assess the scope and scale of the damage.

Together the Trustees will determine how much work is necessary to restore the Gulf of Mexico.



## OIL IN THE OPEN WATER

Oil in the open water may affect the health of microscopic plants and animals that form the basis of the oceanic food web. The eggs and larvae of shrimp, fish, and other commercially and recreationally important species are at risk, as are adult fish, sea turtles, marine mammals, and ocean-going birds. Far beneath the surface, corals and other deepwater communities also might be affected.

### WATER COLUMN AND SEDIMENTS

- Water quality surveys
- Transect surveys to detect submerged oil
- Oil plume modeling
- Sediment sampling

### TURTLES AND MARINE MAMMALS

- Aerial surveys
- Tissue sampling
- Acoustic monitoring
- Satellite tagging

### FISHERIES

- Plankton surveys
- Invertebrate surveys
- Adult fish surveys
- Larval fish surveys

## OIL IN NEARSHORE HABITATS

Sensitive nearshore communities such as oyster beds and shallow-water corals may lie directly in the path of underwater oil and surface mousse riding the waves to shore. When the oil does hit land, it can severely impact coastal habitats including marshes, mudflats, mangrove stands, and sandy beaches. Organisms that use these habitats, such as birds, crabs, turtles, and other aquatic and terrestrial species also are at risk.

### SHORELINES

- Aerial surveys
- Ground surveys
- Observations of the quality of habitat
- Measurements of subsurface oil near the shore

### TERRESTRIAL AND AQUATIC SPECIES

- Ground surveys
- Observations of the quality of habitat

### SHELLFISH

- Oyster surveys
- Tissue and sediment sampling
- Shrimp collection

### AQUATIC VEGETATION

- Aerial surveys
- Field surveys in large beds of aquatic vegetation

### BIRDS

- Aerial surveys
- Ground surveys
- Nearshore boat surveys
- Offshore boat surveys
- Radio telemetry

## OIL AND HUMAN USE

From fishing and water sports to sunbathing and birdwatching, humans enjoy and recreate on Gulf Coast waters and nearshore environments in many different ways.

### HUMAN USE

- Aerial surveys
- Ground surveys

