

SPILL RESPONSE AND PLANNING

RPI's rapid response team is able to go anywhere in the world in the event of an oil or chemical spill emergency. We currently respond to about 50 spills per year. Because of our extensive experience at many oil spills, RPI is uniquely qualified in the following areas:

- Emergency Technical Response
- Oil Spill Contingency Planning
- Applied Oil Spill Research and Monitoring
- Environmental Sensitivity Index (ESI) Mapping: Using GIS Technology Improves Planning and Response
- Oil Spill Training Courses
- Protection Strategies for Tidal Inlets



Emergency Technical Response

RPI's rapid response team is able to go anywhere in the world in the event of an oil or chemical spill emergency. RPI provides support for assessing:

- Resources at risk
- Protection strategies
- Information management
- Shoreline Cleanup Assessment Team (SCAT)
- Shoreline cleanup technologies, specializing in alternative countermeasures such as in-situ burning and shoreline washing agents
- Natural Resource Damage Assessment (NRDA)
- Oil Spill Response Technologies



We currently respond to about 50 spills per year. After the spill emergency phase is over, RPI provides post-spill support in the production of reports and design and implementation of monitoring studies.

Oil Spill Contingency Planning

Because of our extensive experience at many oil spills, RPI is uniquely qualified to prepare contingency plans. We have produced contingency plans for industry and government clients throughout the world (including all regions of the USA, Panama, Aruba, Kuwait, Mozambique, and Nigeria). We have prepared numerous manuals to assist response organizations in oil spill planning, such as: Shoreline Assessment Manual and Mechanical Protection Manual for Area Contingency Planning.

Environmental Sensitivity Index: Using GIS Technology to Improve Planning and Response

RPI scientists created the original concept of sensitivity mapping in 1976. Since then, RPI has been the leader in the production of sensitivity atlases and databases using (GIS). Completely digital atlases are available for most of the U.S. shoreline, including Alaska and the Great Lakes. We have also prepared Reach Sensitivity Index (RSI) atlases for inland areas for the U.S. Environmental Protection Agency, as well as customized maps and digital products for special applications.

SPILL RESPONSE AND PLANNING (cont.)

Applied Oil Spill Research and Monitoring

We are actively involved in the design and implementation of research on the operational issues of oil spill fate and effects. Our specialty is evaluating the trade-offs of oil spill response actions. Examples of on-going projects include:

- Recovery of Four Oiled Wetlands Subjected to In Situ Burning, for the American Petroleum Institute
- Managing Seafood Safety during the Emergency Phase of a Spill, for NOAA
- Dispersant-Use Guide for the Florida Keys, for NOAA
- Fate and Effects of Oil Spills publications

Oil Spill Training Courses

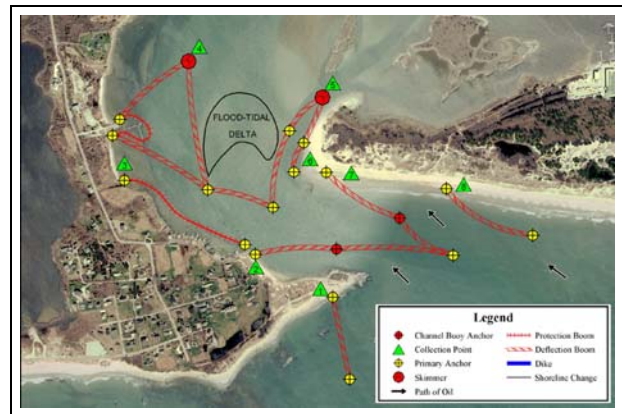
RPI offers a range of courses on oil spill planning and response issues, as well as natural resource damage assessment. All of our courses include field exercises (which are always cited as being the best part of the course) with emphasis on the interdisciplinary components of coastal habitats, protection strategies, and cleanup methods. We customize each course to meet the needs of the participants.



Protection Strategies for Tidal Inlets

In conjunction with local operations groups, RPI has constructed inlet protection strategies for over 300 tidal inlets along the outer shore of California, much of the coastline of Florida, in San Francisco Bay, at selected sites in North Carolina and Georgia, and all the inlets in New Jersey and Delaware. Tidal inlets are the focal point for the protection of sensitive resources from oil

spills in many areas, because they represent a passageway by which the oil could reach more sensitive estuarine habitats, such as sheltered salt marshes and mangroves.



Data Elements

These protection strategies include the following elements:

- A ranking of the inlet based on the degree of difficulty required to protect it and the amount of the resources at risk;
- Listing of the principal resources at risk should oil pass through the inlet; a preliminary protection strategy that includes location of key collection points; boom configurations; types of booms, skimmers, etc. required; and potential path of the oil on a flood tide
- Topographic map, field sketch or vertical aerial photograph with protection strategy superimposed, oblique color aerial photographs, detailed discussions of the logistical aspect of the collection sites, any data on tidal currents and waves that might be available, and pertinent scientific references.

Application of Results

By providing such a detailed understanding of the geomorphology, circulation patterns, and maximum current velocities to be anticipated in the inlet, scientifically based protection strategies can be derived that are useful during two critical stages of oil-spill response.

- The contingency planning stage, by defining equipment and personnel needs required to protect the inlets; and
- On-scene support of operations during the spill to fine-tune equipment deployment for site-specific conditions.