

## **Risk Communication**

The "public perception" of any event, such as a marine oil spill, is shaped, created and recreated through many different processes and often hinges, at least in the social arena on how effectively the process of communication is conducted. What is communicated (the metric used), how it is communicated (understanding the distinct values of the all stakeholders involved) and the purpose of the communication (fostering cooperation, soliciting input, or strictly informational) are all critical in determining the adequacy and appropriateness of any oil spill risk communication. Study mechanisms for evaluating what the "public" values and how different "publics" may value resources differently, how individuals and/or groups gather and process information during times of stress or crisis as well as development of information delivery methods adequate to meet the needs and interests of a target audience would better inform spill response professionals on how to best "communicate" both prior to and during an oil spill response

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## Valuing Natural Resources

Estimating the value of natural resources after an oil spill is often an important and contentious step in the injury assessment associated with the spill, and in establishing and evaluating the restoration process. The tension is rooted in the competing incentives of the responsible parties and those who are charged with protecting the public interest as a whole. State of the art skills associated with natural resource valuation include hedonic pricing, contingent valuation methodologies and theories of public opinion. Hedonic pricing consists of the use of data from market transactions in which values for environmental amenities (or their loss) are econometrically derived from prices. Contingent valuation consists of the creation of hypothetical choice scenarios in which the affected community's demand for environmental goods is estimated by aggregating individual preferences. Relevant theories of public opinion include cultural theory, environmental attitudes, and behavioral theories of environmentalism and market behavior. Emphasis should be placed on the application of these approaches to concrete problems and made accessible and useful to practitioners.

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## **Social Impacts**

Social impact assessment is an approach that can be used to examine social and cultural consequences of oil spills. These consequences can be found throughout the micro-macro continuum from individuals to communities to society at large. Micro level impacts include changes in social, cultural, and economic resources; increased levels of mental distress; family stress; alcohol and drug abuse; and out-migration decisions among individuals experiencing an oil spill. Community level impacts include changes in social capital and patterns of group interaction, as well as disruptions to civic, occupational, and economic structures of a community. Macro level impacts include broader socio-cultural issues such as trust in institutions; legislative and policy changes; legal rulings; and changes in cultural values and social norms. A significant body of social science research on the *Exxon Valdez* oil spill provides an example of a variety of approaches that can be used to assess social impacts of oil spills.

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## **Subsistence**

Subsistence use of natural resources utilizes a variety of plant and animal species and continues to be a wide spread nutritional, economic, social, and cultural phenomenon. When an oil spill occurs, subsistence users may lose valued resources either through real loss or perceived degradation of resource quality. The impact of this loss may resonate through affected communities and result in negative changes in community patterns of interaction and organizational structure. OPA 90 does not allow Natural Resource Damage Assessment (NRDA) to consider restoration of lost subsistence use. Other NRDA restoration projects, however, may increase access to subsistence resources and create cumulative negative impacts on subsistence resources, as well as individuals and communities with strong social and cultural ties to subsistence.

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## **Coordination in Response & Restoration**

From Prevention to Recovery – An Institutional Perspective

Oil spill prevention, preparedness, response and recovery rely on coordinated decision-making and action among federal, state, and local agencies integral to a legislatively established National Response System; governmental and non-governmental scientific support; parties legally responsible for spills; and affected communities. Ineffective coordination can delay response and increase impacts to the environmental, socioeconomic and cultural resources of the affected communities. This workshop theme will draw on institutional analysis and related social science disciplines identify practices to assess and improve coordinated decision making and action among parties integral to oil spill prevention, preparedness, response, and recovery under the Oil Pollution Act.

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## **Environmental Ethics**

Endpoints of Recovery – Legal, Social, and Ethical Perspectives

The “institutional” theme above examines how parties with varied interests and responsibilities can work together to achieve success. This theme examines what we mean by success when an oil spill has occurred and efforts turn toward restoration. On the one hand, this is a legal question. The Natural Resource Damage Assessment regulations promulgated under OPA establish “baseline conditions” as a legal standard of success. From a social standpoint, the interpretation of “baseline” may be controversial – especially in the absence of data describing sociocultural, economic, and environmental conditions prior to a spill. And from an ethical standpoint, such controversy may be perplexing. For example, absent baseline data, when parties dispute the endpoint of restoration, how ought such disputes to be resolved on a reasoned basis? What are the obligations of the federal government, by means of the National Response System, to restore impacted social, cultural, economic, and environmental conditions? What are the obligations of parties responsible for a spill? There is a vast literature and lively interdisciplinary discussion of related topics in the field of Practical Environmental Ethics.

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