

Florida Department of Health
Deepwater Horizon
Public Health Advisories
Due to Oil-Spill Related Impacts to Water & Sediment
August 09, 2010 v8.2

Purpose: This Concept of Operations establishes criteria that will be used by County Health Departments to issue and rescind Oil Impact Notices and Health Advisories due to the Deepwater Horizon incident. Messaging to the public about health concerns and protective actions may be accomplished using a variety of methods other than posting Health Advisories and are outside of the scope of this Concept of Operations.

Planning Assumptions

- Coastal water quality is an important issue from public health, environmental, and economic standpoints.
- Coastal water pollution has economic impacts: every day a beach is affected by the oil increases the adverse economic consequences to local communities and tourism.
- Florida beach safety is a shared responsibility across local, state and federal authorities. Multiple entities have authority to regulate Florida beaches or beach water access.
- The Deepwater Horizon Oil spill has impacted Florida beaches.
- Beaches may be impacted at varying levels by the oil spill over time.
- Changes in surf conditions may make oil or oil products difficult to see. Severe weather may change the oiling of all or a portion of any beach.
- It may be necessary to issue notices, health advisories, or disseminate other public health messaging in order to protect the health and safety of Florida residents and visitors.
- The Florida Constitution allows local jurisdictions to restrict beach access or use by exercising police power if in the interest of the public's health and safety.
- BP has the lead for response and clean-up activities.
- Florida has access to information on the composition of the oil released from the Deepwater Horizon incident.
- County Health Department Directors / Administrators have the authority to issue health advisories if beach waters and/or sediment fail to meet standards established by the department. For purposes of the Deepwater Horizon incident, the triggers below establish departmental standards.
- The State Emergency Response Team (SERT) Emergency Support Function 14 is responsible for developing strategies to deliver public health messaging for this incident during Level 1 & 2 activations. The Department of Health will assume responsibility for health messaging once the SERT returns to a Level 3.

Authorities

- State Emergency Response Team has authority under Florida Statute 252 to coordinate state response to disasters.

Concept of Operations

I. Assessment of Oil Impact & Recommended Course of Action

Section of Shoreline Impacted

The boundaries of a section of shoreline impacted will be identified by designated local officials based on the visual presence of oil and oil products.

Courses of Action

Beach Condition	Recommended Course of Action
No visual presence of oil or oil contaminants linked to Deepwater Horizon.	<ul style="list-style-type: none">• Public information disseminated as determined by scope of public inquiries.• No posting recommended.
Visual presence of oil as observed as patches of oil mousse, oil sheen and/or tar balls in quantities easily avoided or water quality sampling data below established human health threshold levels for chemicals of concern. (Tier 2)	<ul style="list-style-type: none">• Public messaging disseminated based on assessment of impact.• No posting recommended.
Visual presence of extensive oil as observed as oil mousse, oil sheen that cannot be easily avoided, tar balls too numerous to avoid or water quality sampling data that exceeds established human health thresholds levels for chemicals of concern. (Tier 1)	<ul style="list-style-type: none">• Public messaging disseminated based on assessment of impact.• Post Health Advisory.

II. Posting Health Advisories (Tier 1)

As of August 11, 2010, only Health Advisories, as outlined in this Concept of Operations, will be posted. Any Health Advisories or Oil Impact Notices posted under previous versions of the Concept of Operations will be rescinded using the criteria in Section III of this document.

The Florida Department of Health issues **Health Advisories** urging residents and visitors to not enter waters or public bathing areas that pose significant health threats. The issuance of Health Advisories related to this incident should be coordinated with local officials and reported to both the State Watch Office at 1-800-320-0519 and the DOH Division of Environmental Health via email to oilybeaches@doh.state.fl.us.

1. **Trigger for issuing and posting Health Advisories for Florida beaches or other public bathing areas.** The triggers for posting health advisories are one or more of the following:

- Visual presence of extensive oil observed as oil mousse or oil sheen that cannot be easily avoided;
- Tar balls too numerous to avoid; or,
- Water quality sampling data that exceeds established human health thresholds levels for chemicals of concern (see Section IV).

2. Health Advisories to be posted at beach or at public bathing areas:

It is recommended that health advisory signs be posted at the beach 'access points' based on the local knowledge of where people are swimming.

<p>Health Advisory</p> <p>This beach is affected by the Deepwater Horizon oil spill.</p> <ul style="list-style-type: none"> ▪ DO NOT wade, swim or enter the water. ▪ Avoid contact with oil and oily materials on the beach. ▪ Avoid contact with dead or dying fish, other aquatic life or wildlife. <p>If oil makes contact with skin, wash it off with grease-cutting liquid dishwashing detergent and water.</p> <p>For more information visit the County Health Department website xxxxx or call xxx-xxx-xxxx.</p>
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III. Rescinding Health Advisories

The following criteria are established to rescind the posted Health Advisories. These criteria will also be used to rescind Oil Impact Notices posted prior to the date of this Concept of Operations. The final decision to rescind the notices or advisories will be made by the County Health Department in partnership with local county officials using the following criteria:

1. Oil Spill Impact
2. Water Sample Data
3. Visual Evaluation of Sediment

Criteria 1. Oil Spill Impact

Historical Impact

- Shoreline sections with posted Oil Impact Notices or Health Advisories which have had no visual presence of extensive oil as observed as oil mousse, oil sheen that cannot be easily avoided, or tar balls too numerous to avoid for 7 days, will be considered to meet this criteria and eligible for rescission provided that the criteria #2 and #3 have also been met.
- The determination of the last date of visible presence of oil is made by the County Health Department Director/Administrator in partnership with county officials.

Future Impact

- Shoreline sections with no projected forecast of significant oil impact within the next 3 days are considered eligible for rescission provided that criteria #2 and #3 have also been met.
- Forecasts for future oil impacts will be based on the National Oceanic & Atmospheric Administration (NOAA) 72 Hour Trajectory Forecast. The forecast is available at http://response.restoration.noaa.gov/dwh.php?entry_id=809#top. If NOAA discontinues providing forecast maps, this portion of the criteria will be eliminated.

Criteria 2. Evaluation of Water Sample Data

- Florida will use water samples taken by the Florida Department of Environmental Protection and the U.S. Environmental Protection Agency for evaluating chemicals of concern for purposes of this Concept of Operations.
- Water quality samples used to determine if an Oil Impact Notice or Health Advisory can be rescinded for a shoreline section will be based upon the data from 7 consecutive sampling events with a minimum of 3 samples per sampling event. A minimum of 21 total samples are collected over the course of the sampling of each impacted shoreline section.
- The total number of samples may exceed the 21 minimum, depending on the length of the impacted shoreline. The determination of the appropriate number of samples will be made by the Department of Health, Division of Environmental Health, in partnership with the Department of Environmental Protection.
- The Florida Department of Environmental Protection will provide a report of sample results to the Department of Health, Division of Environmental Health for dissemination to the County Health Department Director/Administrator.

Criteria 3. Visual Evaluation of Sediment

- Residual oil and chemicals of concern in sediment will be evaluated when considering rescinding Oil Impact Notices or Health Advisories.
- Shoreline sections will be evaluated using analytical methods to determine if the absence of visual signs of oil reflects the absence of potentially hazardous levels of chemicals of concern.
- If analytical tests demonstrate that visibly clean sediments (including beach sand) are free of hazardous levels of chemicals of concern, then visual assessment of sediments will be used to determine if Oil Impact Notices or Health Advisories can be rescinded. NOTE: This assumption may only be applicable to North West Florida sand beaches and can not be assumed in other areas with different types of sand.
- If visual examination is determined not to be a reliable indicator of oil contamination, then chemical analysis of the sediments will be necessary.

- The Florida Department of Environmental Protection will provide a report of sample results to the Department of Health, Division of Environmental Health for dissemination to the County Health Department Director/Administrator.

IV. Thresholds for Chemicals of Concern

Thresholds for chemicals of concern will be adopted by the Florida Department of Health, State Toxicologist for the chemicals of concern in Table 1. The thresholds will be established based on the following (in priority order):

- Adopt established Chronic Human Health Benchmark Values
- Pre-Impact Background Levels
- Analytical Method Detection Limits

Table 1: Chemicals of Concern

Polynuclear Aromatic Hydrocarbons (PAHs) (Water & Sediment Samples)	Metals (Sediment Sample Analysis Only)
1-Methylnaphthalene	Nickel
1-Methylphenanthrene	Vanadium
2,3,5-Trimethylnaphthalene	
Acenaphthene	
Anthracene	
Benzo(a)anthracene	
Benzo(a)pyrene	
Chrysene	
Dibenzo(a,h)anthracene	
Fluorene	
Naphthalene	

Phenanthrene	
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Dispersants: Dispersants used during the Deepwater Horizon event have been evaluated by the U.S. Environmental Protection Agency (EPA). Based on the EPA conclusion that (1) dispersants and their breakdown by-products do not present a public health risk, and (2) that the dispersants only have a four and one-half day half-life and (3) dispersants were not used in Florida waters, the State of Florida will only do random sampling for the one known persistent component of the dispersant (Dioctylsufosuccinate) in heavily impacted shoreline sections.