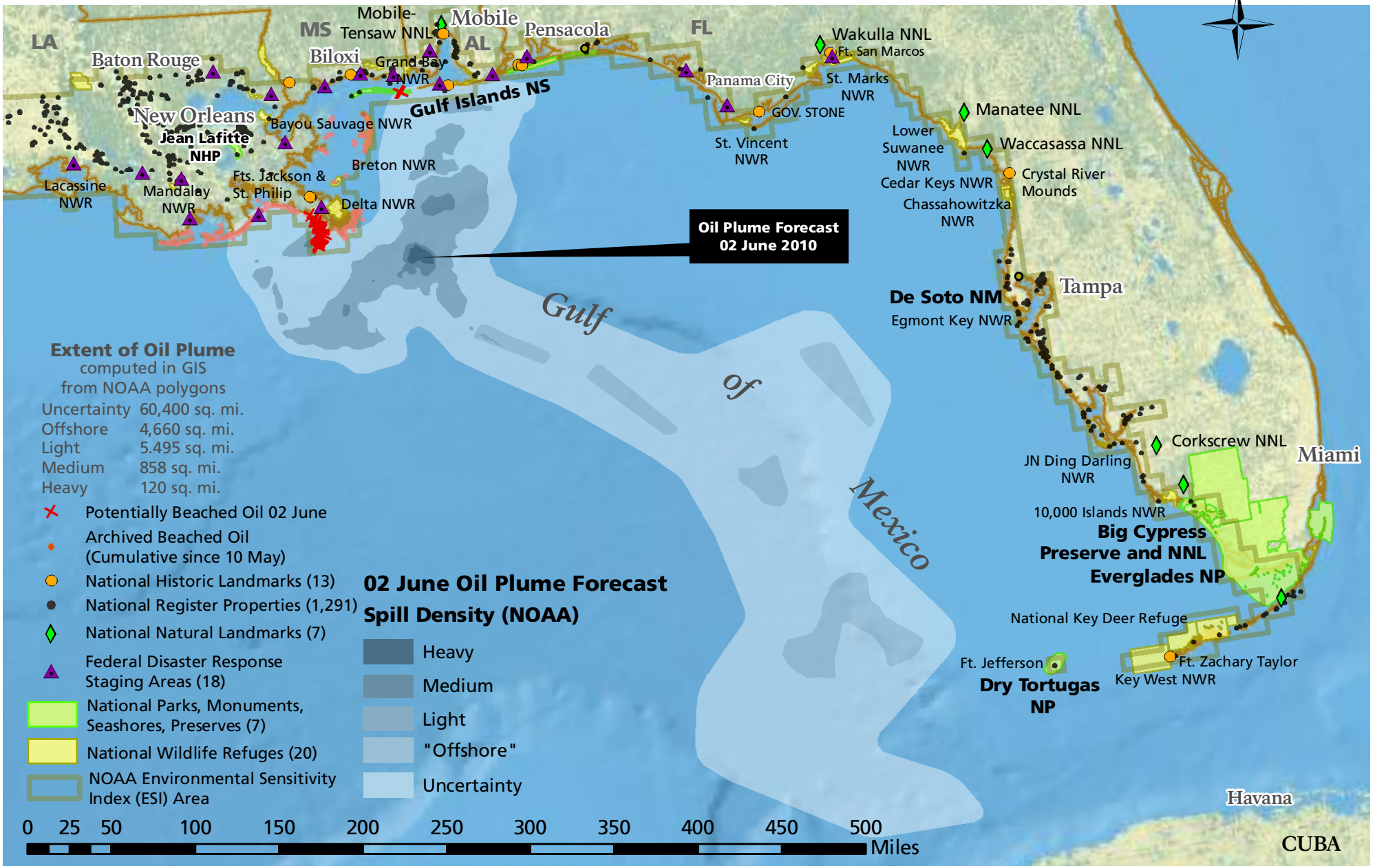
Cultural and Natural Resources Potentially Affected by Gulf Oil Spill



Produced by Cultural Resources GIS | 02 June Map 1 | Map compiled 02 June 2010

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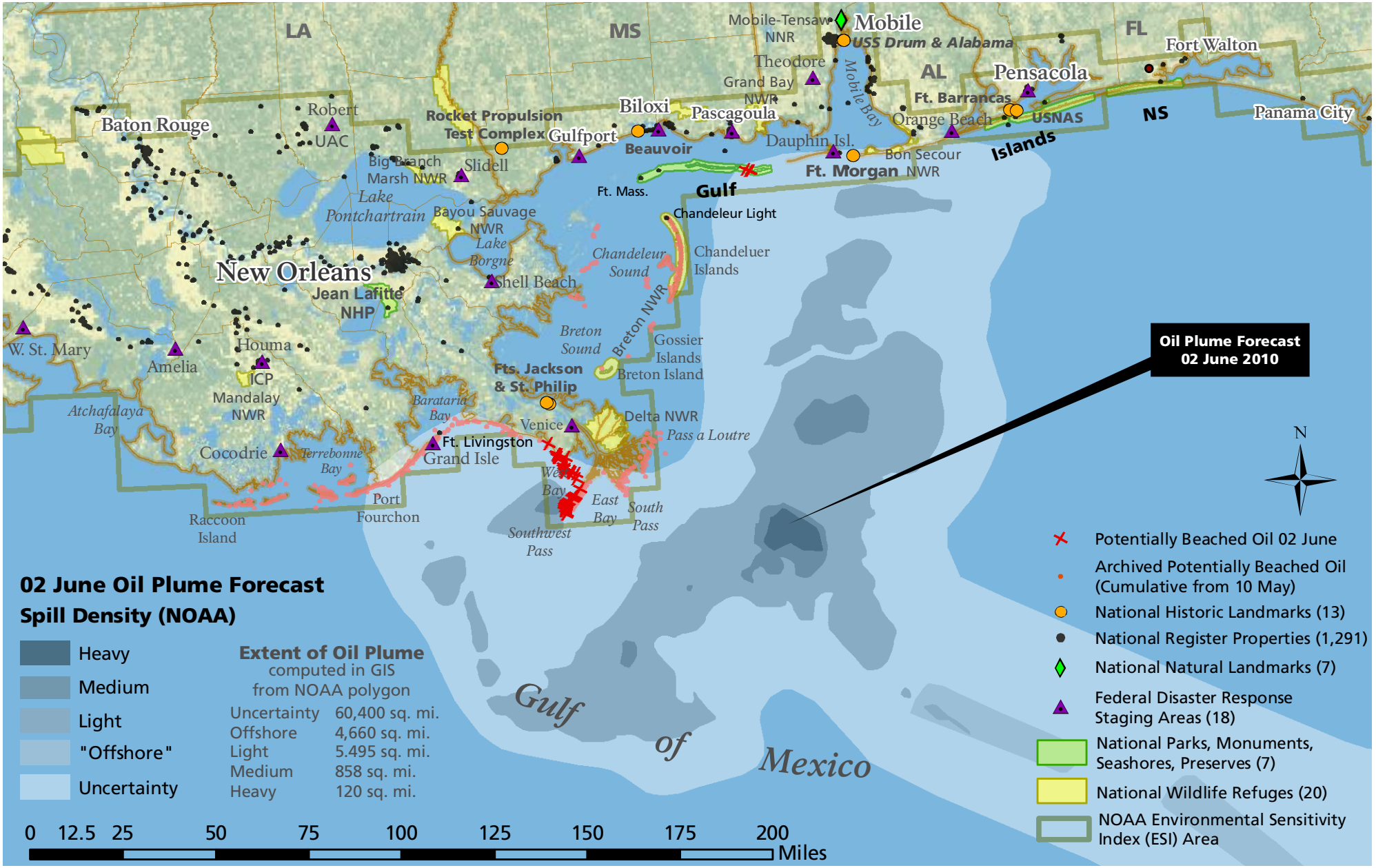
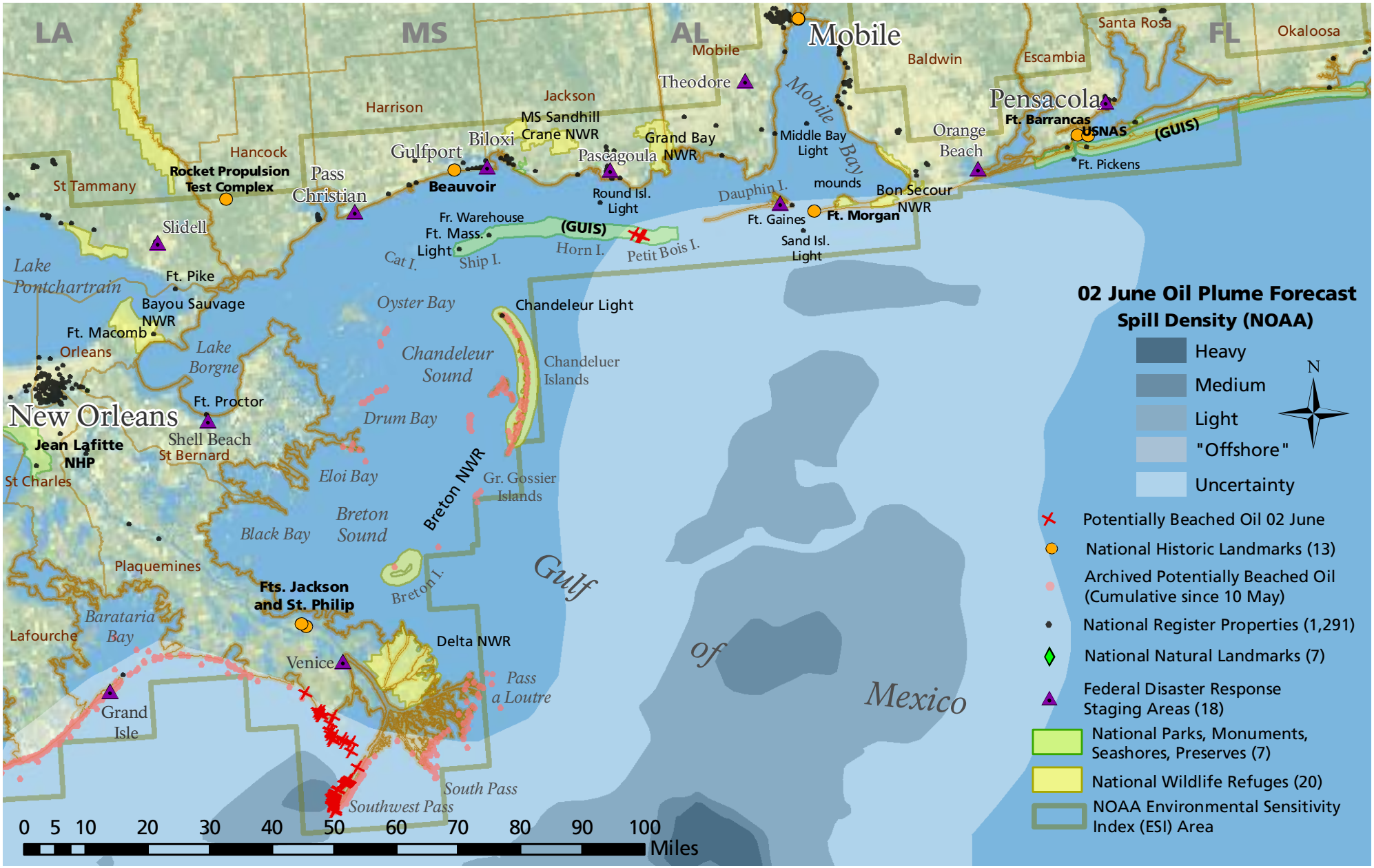


Produced by Cultural Resources GIS | **02 June Map 2** | **Map compiled 02 June 2010**

Cultural and Natural Resources Potentially Affected by Gulf Oil Spill



Map Metadata 02 June

Oil Plume Extent Forecast
Source: NOAA/Office of Response and Restoration
http://events.arcgisonline.com/arcgis/services/Gulf_Coast_Oil_Spill_Plume
Date Prepared: reported by CRGIS as of *Wednesday 02 June*
On 18 May, NOAA separated its oil plume extent into separate polygons—an inshore plume and an offshore plume. As of 20 May, both plumes were being posted by the GIS service. CRGIS has merged the Uncertainty areas from both plumes and differentiated the higher density oil depicted within the offshore plume. This gives five density classifications within the legend—Heavy, Medium, Light, Offshore, Uncertainty; previously there were four.

NOAA describes today's data set as below:

"Estimates for: 1200 CDT, Wednesday 6/02/2010
Date prepared: 2100 CDT Tuesday 6/01/2010

This forecast is based on the NWS spot forecast from Tuesday, June 1 PM. Currents were obtained from several models (NOAA Gulf of Mexico, West Florida Shelf/USF, NAVO/NRL) and HFR measurements. The model was initialized from Tuesday satellite imagery analysis (NOAA/NESDIS) and overflight observations. The leading edge may contain tarballs that are not readily observable from the imagery (hence not included in the model initialization). Oil near bay inlets could be brought into that bay by local tidal currents.

Onshore winds (predominantly SW) are expected to continue through Friday with speeds of 10-15 kts. These winds have resulted in northward movement of the slick towards the Mississippi/Alabama barrier islands. Trajectories show a northeastward movement over the next few days - threatening shorelines as far east as Pensacola. The threat to shorelines in Breton Sound, Chandeleur Sound, and the NE side of the Delta will be reduced. To the west of the Delta, trajectories indicate that more shoreline impacts could occur between Timbalier Bay and SW Pass."

Offshore Oil Plume Extent Forecast
Server: http://events.arcgisonline.com/arcgis/services
Name: Gulf_Coast_Offshore_Oil_Spill_Forecast

NOAA describes today's data set as below:

"Estimates for: 1200 CDT, Wednesday 6/02/2010
Date prepared: 1900 CDT Tuesday 6/01/2010

Currents were obtained from three models: NOAA Gulf of Mexico, NavO/NCOM, and NRL/IASNFS. Each includes Loop Current dynamics. Gulf wide winds were obtained from the gridded NCEP product. The model was initialized from Sunday-Tuesday satellite imagery analysis (NOAA/NESDIS). The leading edge may contain tarballs that are not readily observable from the imagery (hence not included in the model initialization).

Satellite imagery analysis continues to show narrow bands of oil to the SE and ESE of the main slick. Recent overflights to this region reported only non-contiguous, colorless sheens continuing in narrow bands as seen in the satellite imagery. Trajectories for remaining observed oil within this region suggest these scattered sheens will continue to be entrained in a large clockwise eddy (Eddy Franklin) that has pinched off the main Loop Current. Imagery obtained on May 30 also showed a narrow band of apparent sheen within the clockwise Loop Current eddy (Franklin) as far south as approximately 27 degrees 15 minutes. If this sheen persists or has tarballs

associated with it, there is potential for some of it to become entrained into the Loop Current and move toward the Florida Straits."

Federal Disaster Staging Areas
Source: Obtained from *Deepwater Horizon (MC252) – Situation Status Map*
Source Date: 5/19/2010
In addition to the UAC at Robert LA, and the ICP at Houma, LA, the staging areas are: Dauphin Island, Orange Beach, and Theodore AL; Panama City, Pensacola, Port St. Joe, and St. Marks, FL; Amelia, Cocodrie, Grand Isle, Shell Beach, Slidell, St. Mary, and Venice LA; Biloxi, Pascagoula, and Pass Christian, MS.

National Historic Landmarks
Source: National Register Information System, National Park Service
Data is a subset of the National Register of Historic Places
Source Date: 1966 to 5/7/2010

Restricted Data is retained for in-house maps and hidden for publically distributed maps.

National Register Properties
Source: National Register Information System, National Park Service
Source Date: 1966 to 5/7/2010

Restricted Data is retained for in-house maps and hidden for publically distributed maps.

National Natural Landmarks
Source: National Natural Landmarks Program, National Park Service
Source Date: 5/11/2010

National Wildlife Refuges
Source: Derived from U.S. National Atlas Federal Lands
Source Date: 2000

National Parks, Monuments, Seashores, Preserves
Source: NPS GIS Data Store
Source Date: 2/17/2010

Environmental Sensitivity Index Area
The Environmental Sensitivity Index (ESI) map for the Gulf Coast has been developed by NOAA's Office of Response and Restoration. The purpose of the ESI is to identify sensitive resources that may be impacted as a result of an oil spill. NOAA has defined three types of sensitive resources: shoreline habitats, biological resources, and human use resources (including cultural resources). The Index map is an aggregation of 1:24000 USGS quadrangle boundaries covering areas within which these resource types are at risk.

The National Park Service has used the ESI in conducting its own assessment of the potential impact of the Deep Horizon BP Oil Spill because the ESI Area map comes from an authoritative source (NOAA), it provides a consistent geographic framework for agencies to use in responding to the incident, and it allows a reasonable area to take into account the potential impacts of recovery e.g. staging areas, clean up infrastructure, access roads etc. on cultural resources.