

National Status and Trends Program

Deep Water Horizon Oil Spill Response

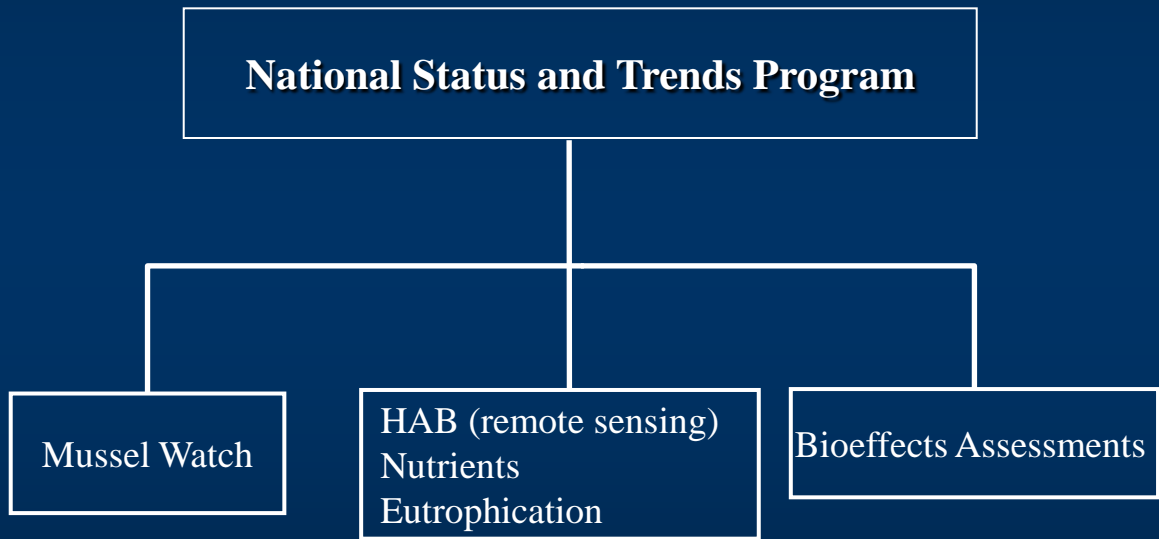


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National Status and Trends Program

Deep Water Horizon oil Spill Response

Mission Statement: to monitor, research and assess the environmental quality and pollution of U.S. coastal waters to support NOAA's coastal stewardship mandate.



NOAA National Status & Trends Program: *Bioeffects Program at a Glance*

Sediment Quality Triad Integrated Assessment



Measures of Effect
Toxicity Bioassays



Measures of Stressors
Chemical Analyses



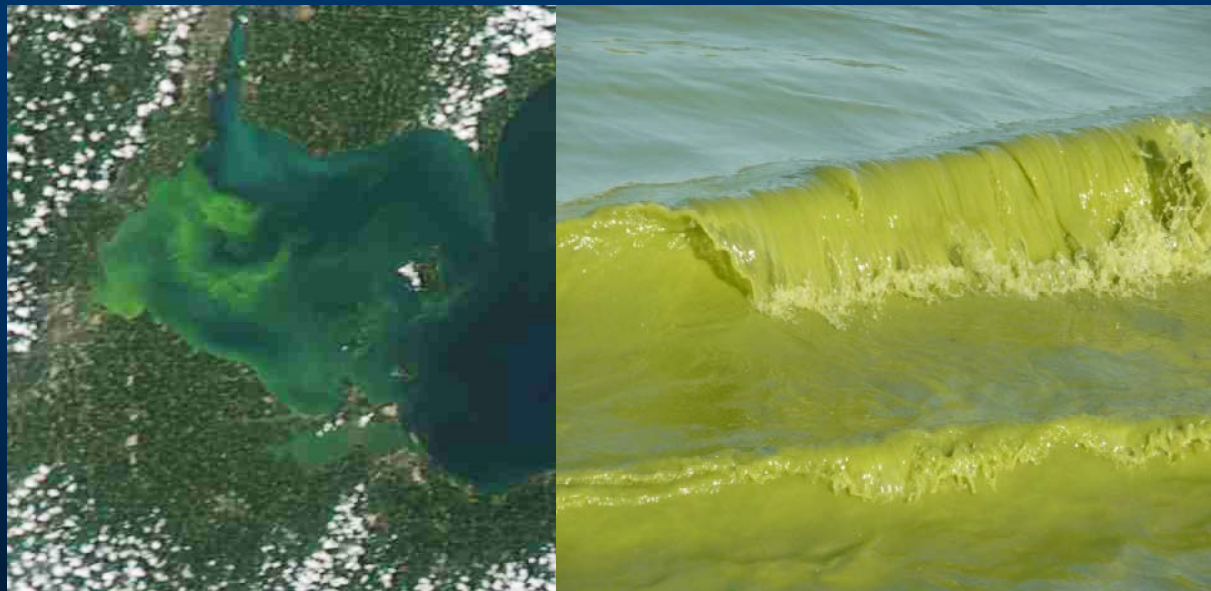
Resident Communities
Benthic Community Analysis

NOAA National Status & Trends Program: *HAB Forecasting Program at a Glance*

- Forecast & Track bloom
- Respond to unusual mortality events
- Assess eutrophication

Regional HAB research

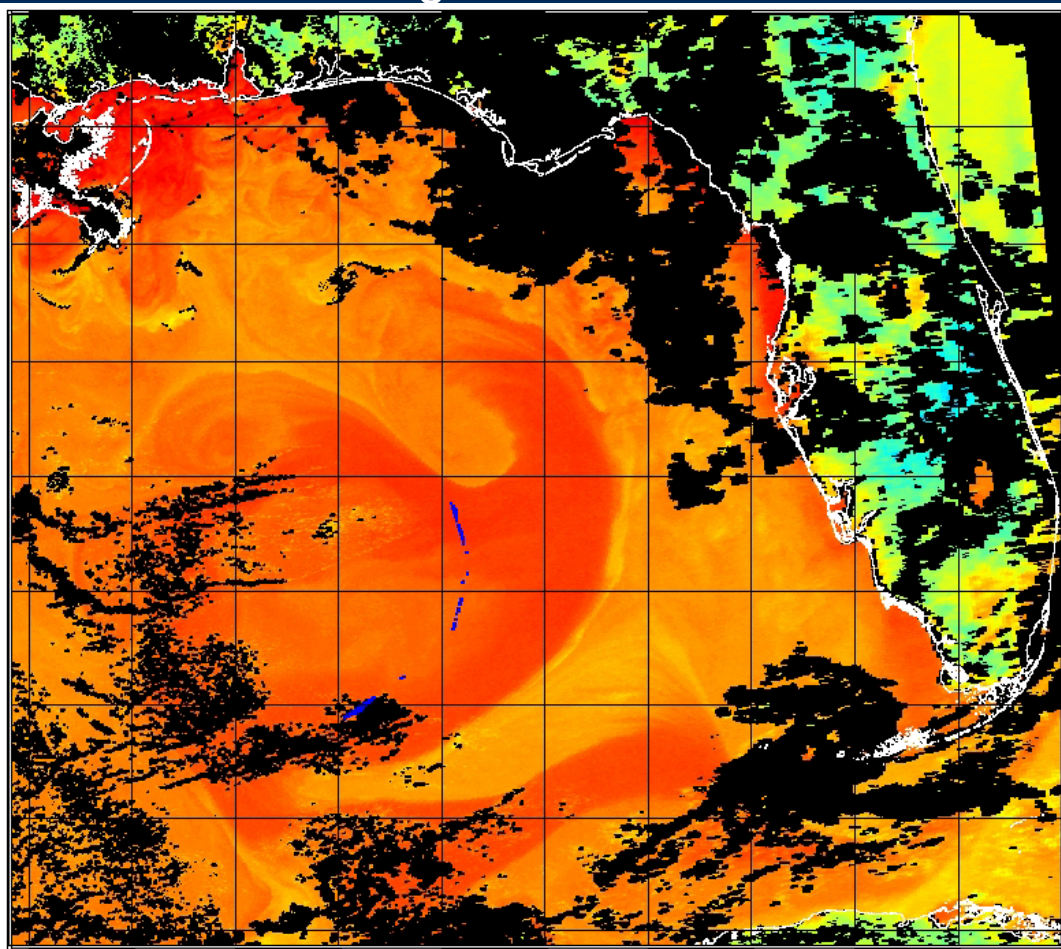
- Gulf of Mexico
- Great Lakes
- Northeast
- Pacific Coast
- Mid-Atlantic /Southeast



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Oil forecasting in the Gulf



Oil blue over satellite
SST imagery to
identify circulation

NOAA National Status & Trends Program: *Mussel Watch Program at a Glance*



**300 Sites nationwide –
1/2 monitored annually**

**Stations 20 km apart in
estuaries, 70 km along
open coast**

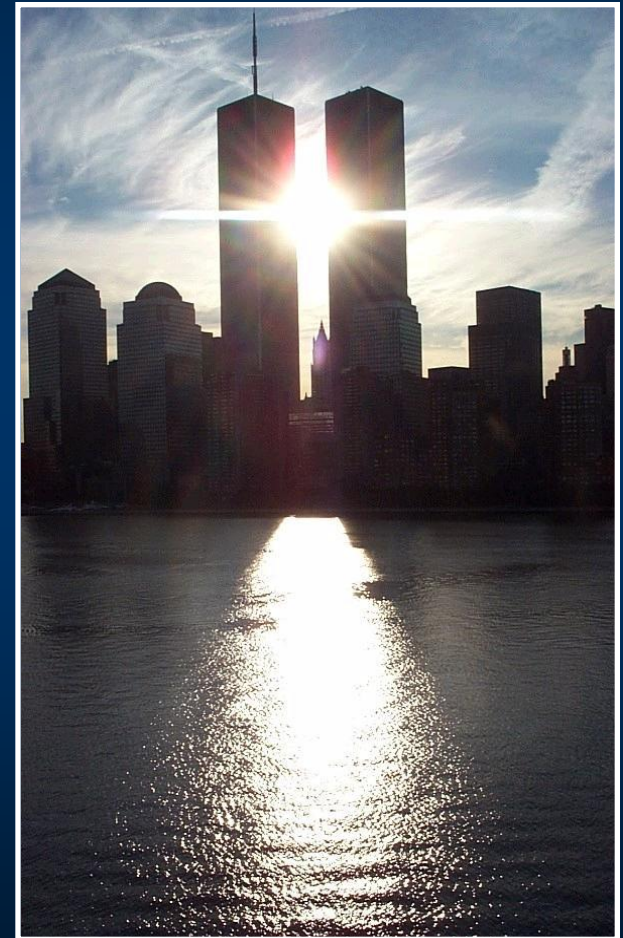
**150 contaminants
routinely monitored in
indigenous bivalve
populations**

**Nations longest running
coastal contaminant
monitoring program
(24 years)**

NOAA National Status & Trends Program

Response – Special Events

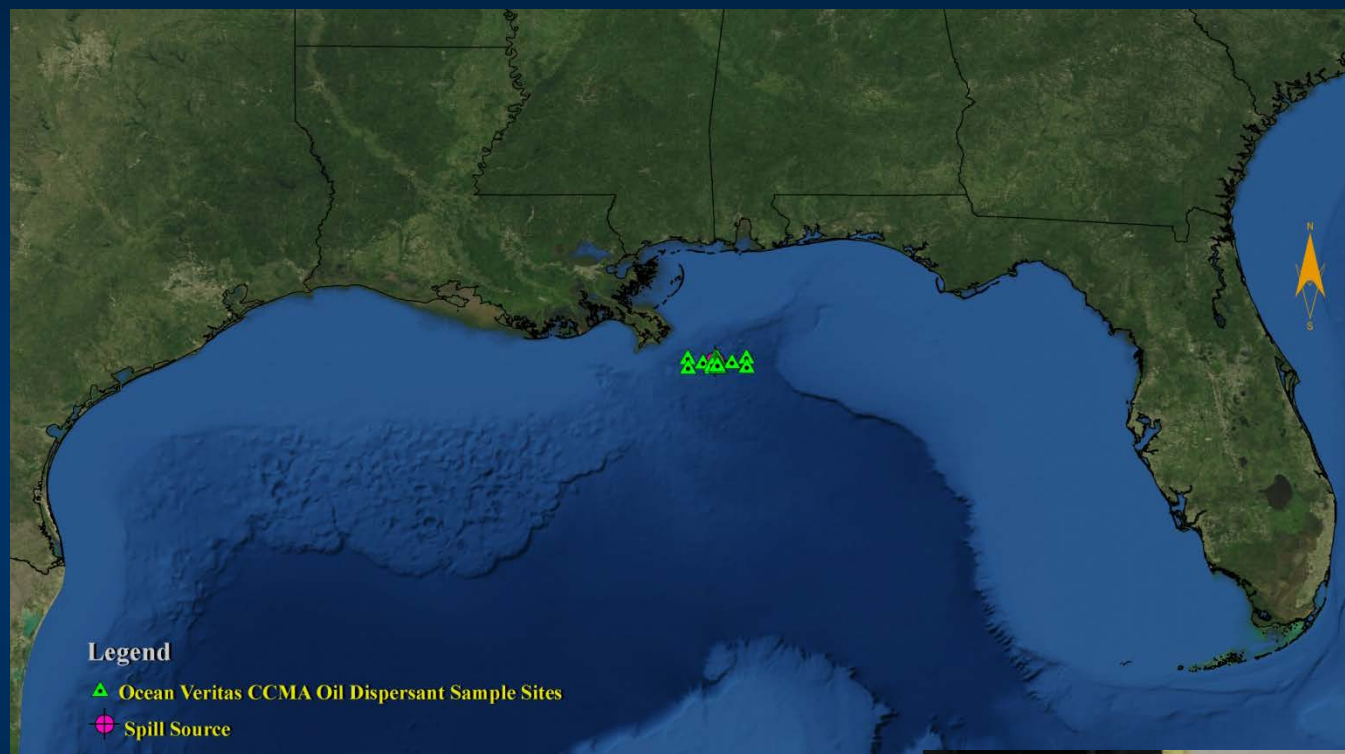
- Exxon Valdez (1995) – 6 sites sampled once in the Gulf of Alaska
- Pribilof Is., St. Paul (2000) – 4 sites sampled once; 3 for high PAHs one reference site
- World Trade Center (2001 and 2004) – 7 sites; 5 sites closer to WTC than HRUB (Statue of Liberty)
- North Puget Sound oil spill (2003) – 2 sites
- Delaware Bay oil spill (2004/2005) – Standard MW sites collected, also collected by state agencies
- Gulf Coast Hurricanes Katrina and Rita (Sep. 24 – Oct. 4, 2005)



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Deep Water Horizon oil Spill Response

- R/V Ocean Veritas
 - 26 sites
 - CTD casts
 - Fluorescence data
- Water chemistry
 - Oil compounds
 - PAHs, VOCs
 - Organics
 - **Dispersant**



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Deep Water Horizon oil Spill Response

NOAA Thomas Jefferson

- 48 sites
- CTD casts
- MVP
- Acoustic
 - Fluorescence
 - Salinity
 - DO
- Water chemistry
 - Oil compounds
 - PAHs, VOCs
 - Organics
 - **Dispersant**

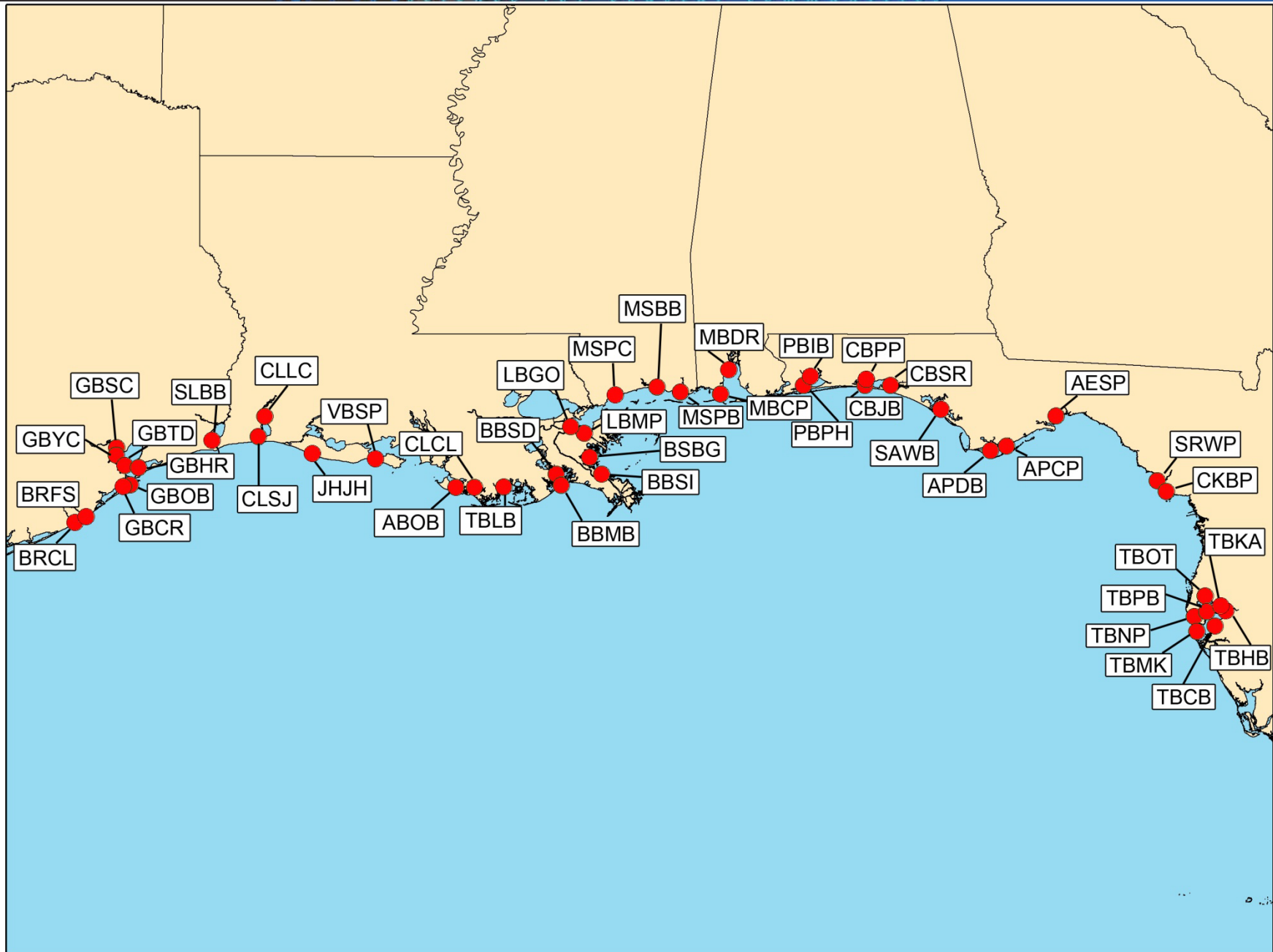


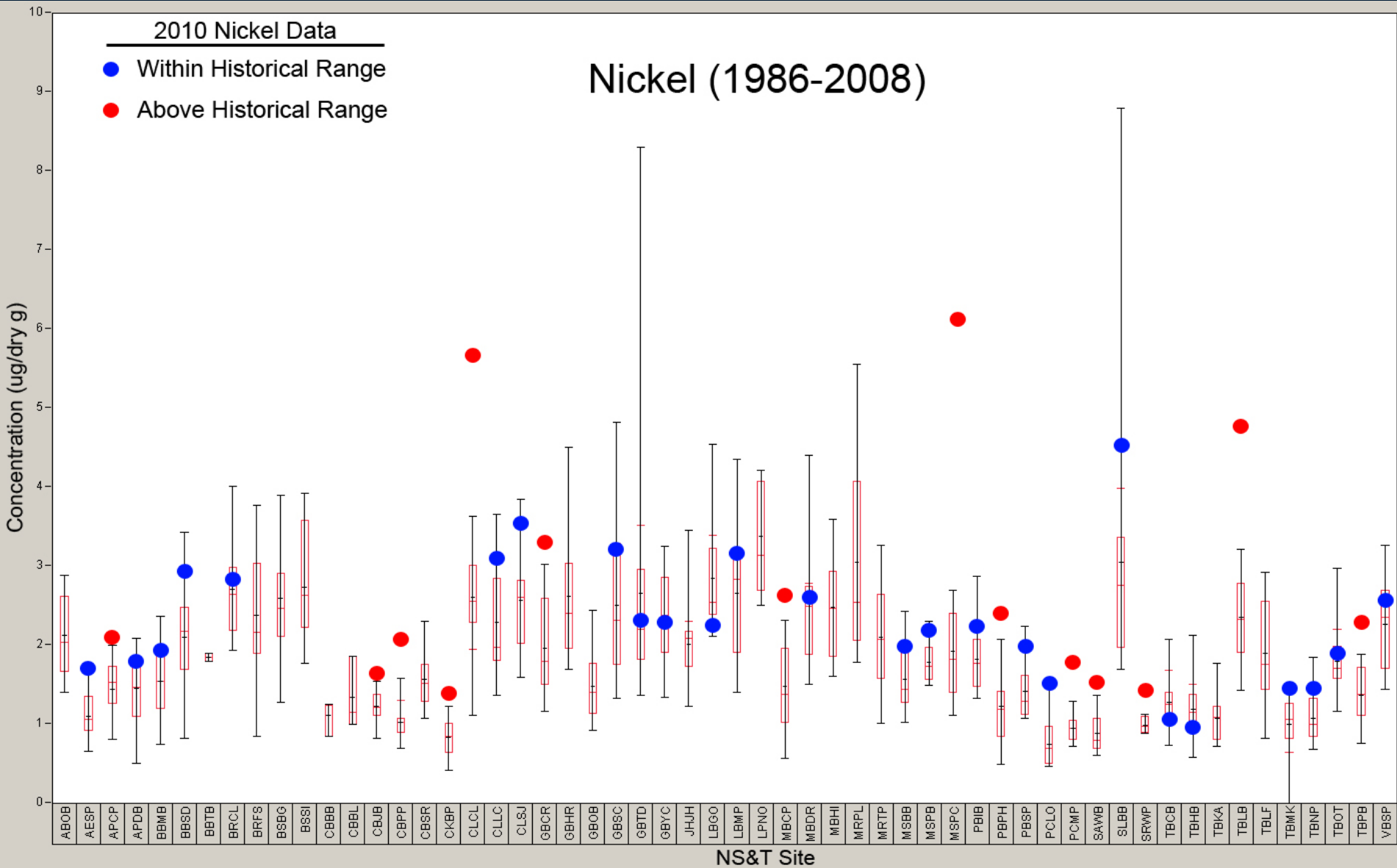
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Deep Water Horizon oil Spill Response

- Water chemistry
 - Oil compounds
 - PAHs, VOCs
 - Organics
- Sediment chemistry
- Sediment Bioeffects
 - Benthos
 - Toxicity
- Oyster chemistry
- Oyster histopathology







Vanadium

