Coastal Response Research Center
2006 Submerged Oil Workshop
Priority Research Needs List (July 15, 2008)

**Please rank these research needs from high (+) to low priority (-).

11 (out of 23 possible) responders; not all responders placed a vote in all categories.
Placed from HIGH priority to low priority. Yellow highlight indicates tie in voting.

LOW -	HIGH +	Net Pts	
0	10	10	**F1./ F3./ F4.** Evaluation & improvement of existing recovery systems (including trawling systems). *Table 8. Group F: Containment and Recovery*
1	9	8	**A2.** Detection using acoustic systems and LiDAR. *Table 1. Detection and Monitoring*
2	9	7	**H2.** Development of effective rapid assessment protocols. *Table 10. Group H: Effects and Restoration*
2	7	5	**D2./ E2./ E4.** Real-time data collection to improve behavior modeling/database; post-spill observations & monitoring. *Table 3. Fate and Transport*
3	7	4	**D4./ E1.** Matrix of impacts and clean up options for seafloor habitats and water column. *Table 3. Fate and Transport*
3	7	4	**F2.** Improvement of oil/water separation and decanting systems. *Table 8. Group F: Containment and Recovery*
3	7	4	**H1**. Database / synthesis of effects of past spills. *Table 10. Group H: Effects and Restoration*
3	7	4	**I1.** Submerged oil hydrocarbon (PAH) toxicity evaluations. *Table 11. Group I: Effects and Restoration*
4	7	3	**I5.** Rates of ecosystem recovery. *Table 11. Group I: Effects and Restoration*
4	6	2	**D1./ E7.** Guidance for predicting oil submergence dependent on chemistry. *Table 3. Fate and Transport*

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4	6	2	**G5.** Evaluate whether trenching is a feasible response option. *New Category: Protection: Barrier Technologies*
4	6	2	**I3.** Exposure pathways leading to chronic toxicity. *Table 11. Group I: Effects and Restoration*
4	5	1	**H5.** Impacts of remedial options on trust resources. *Table 10. Group H: Effects and Restoration*
5	5	0	**D3.** Identifying oil and sediment characteristics to improve behavior models. *Table 3. Fate and Transport*
5	5	0	**E3./E6.** Impact of bottom substrate dynamics affecting behavior and fate (with respect to bathymetry and rugosity). *Table 4. Group E: Fate and Transport research needs: Pre-spill Planning*
5	5	0	**G2./ G3.** Guidelines/barriers for protection of water intakes during spills of submerged oil. *New Category: Protection: Barrier Technologies*
5	5	0	**H3.** Development of long-term monitoring methods. *Table 10. Group H: Effects and Restoration*
5	5	0	**I2.** Submerged oil non-PAH toxicity evaluations. *Table 11. Group I: Effects and Restoration*
6	5	-1	**A3.** Development of statistically based sampling methods. *Table 1. Detection and Monitoring*
5	4	-1	**F5.** Enhance recovery of submerged oil by changing its properties. *Table 8. Group F: Containment and Recovery*
5	4	-1	**G1.** Efficacy of chemical countermeasures. *Table 9. Group G: Containment and Recovery*

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6	4	-2	**A1.** Calibration of snare sampling system oiling as indicator of oil present. *Table 1. Detection and Monitoring*
6	4	-2	**C1.** Coarse-scale presence / absence technologies. *Table 1. Detection and Monitoring*
6	4	-2	**C2.** Refinement of location and quantity following coarse scale detection. *Table 1. Detection and Monitoring*
6	4	-2	**E9.** Integrated models for risk assessment that consider physical, toxicological, and biological components. *Table 6. Group E: Fate and Transport research needs: Modeling and Prediction.*
6	4	-2	**G4.** Development of submerged oil surrogates for use in research, testing and training. *Table 9. Group G: Containment and Recovery*
6	4	-2	**I4.** Economic, recreational, and commercial impact assessment. *Table 11. Group I: Effects and Restoration*
6	3	-3	**H4.** Methods of ecological valuation of benthic habitats. *Table 10. Group H: Effects and Restoration*
7	3	-4	**A4.** Evaluation of in-water chemical sensors. *Table 1. Detection and Monitoring*
7	3	-4	**E5.** Too general: Means to locate and monitor oil and potential entrainment areas on seafloor. *Table 5. Group E: Fate and Transport research needs: Observations and Monitoring*
7	3	-4	**E8.** Development of 4-D transport models. *Table 6. Group E: Fate and Transport research needs: Modeling and Prediction*
7	2	-5	**E11.** Identification of the fate and transport of heavy oil releases from land. *Table 7. Group E: Fate and Transport research needs: Chronic Releases from Contaminated Sediments*
8	1	-7	**E10.** Identification of threats of chronic releases from oiled sediments and oily residues. *Table 7. Group E: Fate and Transport research needs: Chronic Releases from Contaminated Sediments*