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Memorandum

Sender: Ed Gorleski

To:	I-Boat Team
Company:	OCC/CRC/Kim McKenna
Сору То:	
Date:	November 20, 2006
Reference:	Review of Versar, Inc. Data

I-Boat Team,

I have finished the review of the Versar, Inc. data from the report entitled Water, Sediment and Biological testing for an Ongoing Feasibility Study of the New Jersey Intracoastal Waterway, New Jersey and dated November 2002. Sediment cores were collected by Versar in the NJIWW and analyzed for bulk concentration of semivolatile organic compounds (SVOCs), pesticides, PCB's and inorganics. Samples were collected for Atlantic and Cape May counties. For the purpose of this study, all sediment data was reviewed, but only cores collected in Atlantic County were considered for re-sampling.

Existing data provided by the Coastal Research Center in the form of GIS shapefiles and Excel tables were compared to New Jersey criteria for Residential and Non-residential Soil Cleanup Criteria as stated in The Management and Regulation of Dredging Activities and Dredged Material in New Jersey's Tidal Waters. Upon review of the data, the only contaminants found that exceed residential or non-residential SCC are inorganics. Namely, Antimony is at the cusp of exceeding residential criteria at Site ID 1, Beryllium exceeds residential and non-residential SCC at all sites except for Site 15 and 16, and Cadmium exceeds residential standards in all samples, but does not exceed any non-residential standards. SVOCs, pesticides and PCBs were not found to exceed NJ SCC criteria.

Tributyltin (TBT) was commonly used in anti-fouling paints on the hulls of boats. New Jersey has not established SCC limits for TBT, but according to an environmental toxicology study performed in the southern Chesapeake Bay, the highest concentrations of TBT are usually found in and around marinas (levels exceeded 4,000 ppb in this particular study). Atlantic County samples were relatively lower than this with the highest concentrations of TBT being in Dredge Hole (Site ID 27) and Dredge Hole 35 (Site ID 28). These concentrations were both 38 ppb. Site IDs 10 & 11 also had relatively high TBT concentrations of 25 ppb and 26 ppb, respectively.

In general, the samples with the highest concentrations of contaminants were located in the dredge hole (Site ID 27) and Meadow Cut. General trends in these areas show higher concentrations of contaminants relative to other sites. Based on this research, sample locations that would make the most sense to re-sample include dredge hole (Site ID 27), Meadow Cut (Site ID 12) and Site ID 11.



