

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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June 7, 2007

Ms. Laura Olah CSWAB E12629 Weigands Bay South Merrimac, WI 53561

Subject: Results of DNR's Gruber's Grove Bay Sediment Sampling

Dear Ms. Olah:

This letter is intended to give you an update on the Department of Natural Resources' activities associated with Gruber's Grove Bay since dredging of the bay was completed in November 2006. In February of this year, Department of Natural Resources staff collected 10 samples of bottom sediment from Gruber's Grove Bay, following up on the completion of the sediment dredging project conducted by the U.S. Army Corps of Engineers in 2006. The nine samples were each collected from a different part of the Bay and was analyzed for mercury, the contaminant of concern. The target threshold for sediment mercury concentrations is 0.36 milligrams/kilogram (mg/kg), also referred to as parts per million. Two of the DNR sample analytical results for mercury were below the threshold, three were above 0.36 but less than 1 mg/kg., three were greater than 1 and less than 4, and the highest two were 5.62 and 9.19. Two of these 10 samples were collected within 12 feet of each other, one with a mercury concentration of 3.94 and the other with 9.19 mg/kg. As you may recall, the analytical results for the last sediment samples collected by the U.S. Army Corps of Engineers contractors from each of the 37 one-half acre sampling areas last fall indicated that all of these results were below the "background" concentration for mercury of 0.36 mg/kg.

Department staff members have been closely monitoring the Gruber's Grove Bay sediment dredging project. This staff team, which includes surface water and dredging specialists, has been active in evaluating the dredging process through review of submitted information, site observations, and through meetings and conference calls with the Army and the contractors. Department on-site work included a day of side-by-side sediment sampling technique comparisons with the contractors. DNR's team members have also evaluated the results of both the project contractors' and DNR's sediment sampling programs, as well as all other documentation from the project, such as field notes and sampling and laboratory procedures.

In addition, an evaluation of both contractor and DNR sampling and laboratory procedures has recently been completed by both a DNR and a contractor reviewer. No inadequacies have been identified in the sediment dredging process, in the sediment sampling procedures of either the project contractors or the DNR, or the analytical procedures or results of the laboratory used by DNR, the Wisconsin State Laboratory of Hygiene, or the contractor's lab, CT Laboratories in Baraboo.



Since the evaluators do not question the validity of the analytical results, the question remains: why are the contractors' results and the DNR's results different for samples from some of the same locations in the bay, while at other locations the DNR and contractors results are similar?

We are in the process of considering possible answers to this question, which may include differences in sampling procedures. This process may include gathering more information about the characteristics and thickness of the remaining soft sediment that tends to have higher mercury concentrations than the firmer mineral sediment does below it. Based on limited observations after the completion of the dredging project, remaining soft sediment thicknesses appear to be highly variable across even short distances in the dredged area of the bay, from essentially none to approximately 1 foot. This is a vast improvement in soft sediment thickness, compared to the amount on the bottom of the bay before the 2001 and 2006 dredging projects removed more than 140,000 cubic yards of soft sediment from the bay. As you may recall, the mercury-contaminated sediment of the bay does not represent a human health risk, but may have degraded the bay bottom as habitat for bottom-dwelling organisms.

This is all that we know at this time. We here at the DNR are committed to keeping you informed with new information about the Gruber's Grove Bay dredging project as we accumulate and verify it. The next Restoration Advisory Board meeting on June 18th will be a good opportunity for community members, the Army and its contractors, and DNR staff to discuss the dredging project in more detail. If you have questions or comments for DNR staff, please contact either of us at the address listed above or as indicated below.

Thank you for your interest in the Gruber's Grove Bay dredging project.

Sincerely,

Hank Kuehling, P.G.

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Attachment