



Audubon Society of Rhode Island

November 27, 2000

Anna Krasko, Remedial Project Manager
U. S. EPA Region 1
One Congress Street, Suite 1100 (HBO)
Boston, MA 02203

01/27/2000
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4737

Re: EECA, Centredale Manor Restoration Project

Dear Anna:

Although I have previously commented orally, I am adding remarks herewith.

First, I repeat Audubon's concurrence with supporting as an interim restoration Alternative 3, removing the soils in residential areas and flood plain sediments that have greater than 1 ppm concentration of dioxins and reconstructing the Allendale dam with stipulation that fish ladder be part of the reconstruction of the dam.

I am ultimately concerned that the restoration meet the stipulations of the Clean Water Act and provide water that is suitable for human recreation in and on the water, and for aquatic life habitat. I understand that EPA's objective with this phase of the restoration is reducing risk to human health by removing the pathways to dermal or accidental ingestion exposures to dioxins and dioxin-like compounds.

1. None of the maps show residential properties on the Johnston side of the river. While only at Lymansville Pond are residential properties contiguous to the waterway on the Johnston side and there is a bank to the pond on this side that would seem to limit potential exposure, maps should indicate residential lots. Note sample points LPX-SD-2053 and LPX-SD-2051 as indicators of elevated dioxins near Johnston side of Lymansville Pond. The possibility of fish consumption would seem to call for awareness of contamination contiguity at the very least, and mapping these residences would make all agencies involved in the proposed restoration aware of potential human impacts. In addition, residences within 3 – 4 blocks of the river on the Johnston side present the potential for incidental exposure to children exploring the riverine areas. The risk of this exposure would appear small but is unknown.
2. I appreciate your recommending two EECAs in your January 26, 2000, memo to Pat Meany, one "to assess the soils in the residential areas" and a second "to address contaminants in the Woonasquatucket River sediment and soils in its floodplain, including but not limited to the Allendale Pond and the Lymansville Pond areas." Although I read in the Final EECA, dated September 2000, that the two were combined, I am not thoroughly convinced that sufficient monitoring has occurred to adequately assess any migration either in the floodplain below the breached Allendale dam or beyond Lymansville Dam. I ask that Region 1 review its decision to

incorporate the two EECAs, or in the alternative to adequately assess the sediments and soils in floodplain, both between Allendale and Lymansville Ponds and below Lymansville dam. The possibility that some migration may have occurred below Lymansville dam is indicated by the RACE data point WRM-SD-2054 at the base of the Lymansville dam shown in Figure 3-2 of the September 2000 Report. On page 96 of 98 in Appendix C I find analytical results for WRM-SD-2054 of 2,3,7,8-TCDD = 2620 ng/kg; OCDD = 2360 ng/kg; total TCDD = 2680 ng/kg; and Teq = 2670 ng/kg at this site. These values correlate to 2.62, 2.36, 2.68 and 2.70 ppb, above the action level of 1 ppb.

[re: WRM-SD-2054. The log sheet (last page before the sub-section divider in Appendix E) of the Tetra Tech report (September 2000), notes that this is flood plain and not sediment as listed on the map. (FP vs SD). I cannot find the sheet from "Geotechnical Laboratory Test Data" that describes the lab work and justifies the J designation.]

While the floodplain area between Allendale and Lymansville Pond on the west side of the river channel is not immediately contiguous to residential property and some of it is in industrial and junk yard use, it is possible that people, particularly children, from nearby residential areas on the Johnston side of the river may enter this area, particularly from Allendale Avenue.

3. A second issue regarding the limited scope of this EECA is that ecological impacts are not included. Another analysis should address the ecological impacts and satisfy Clean Water Act interim goal of "fishable" waters. I trust that future restoration will address the dioxins being left in the sediments in the current proposal, and these contaminants in the future will be removed or sequestered from pathways to human and other animal exposures. The statement on page 1-32 of the September Tetra Tech report that "widespread removal actions... may have a more detrimental effect" needs qualification. For example, there is no supporting analysis of effects of benthic organisms and bottom feeders disturbing soils and re-introducing dioxins or other sediment contaminants into the food web in the future. There is no analysis of re-population from upstream of ecosystem components that would be destroyed by sediment removal within the Centredale Manor site.

The listing of species using these waters has not been adequately characterized. We trust that in the Pre-design and design steps of Alternative 3 there would be some opportunity to assess not only wildlife nesting and foraging habitat affected by the proposed Alternative but the foraging habitats of the affected area. Birds that I would expect to find but are not listed in Table 2-1.2 are Common Yellowthroat, Northern Oriole, and Eastern Kingbird. These species typically use waterside shrubs and trees for nesting and could be affected by the proposed action.

4. Although EPA has determined that dioxin points will also capture elevated levels of PCBs in a cancer risk analysis, I find no analysis of the non-cancer risk of pollutants. Elevated concentrations of lead are of great concern, especially to neurological development in children. In the Allendale pond area, highest lead in the flood plain

was 1,090 ppm (p. 1-18). Although this is not drinking water, and my argument is based on ingestion exposure through dust, to provide a comparison I offer the fact that the lead standard for drinking water is 20 ppb. The RI Department of Health considers soil concentrations above 500 ppm cause for concern. Residential samples (RES) showing lead levels above 500 ppm are: 10-044-01 (509 ppm), 10-074-01 (952 ppm), 10-75-01 (1220 ppm), 10-076-01 (2160 ppm), 11-012-01 (2460 ppm), 11-424-01 (948 ppm), 12-240-01* (586 ppm), 12-555-01 (664 ppm), 12-556-01 (500 ppm), 14-303-01* (946 ppm), 14-308-01 (890 ppm), 14-333-01* (590 ppm), 14-398-01 (890 ppm), 14-419-01 (522 ppm), 14-448-01 (702 ppm), 14-449-01* (706 ppm).

The proposed alternative would not inundate these lead-contaminated soils and only four* are associated with dioxin contamination and would therefore be removed. I could not find sample points on the map for some sites, and thus do not know whether they are within the defined superfund site. With a cursory look at maps I can detect no pattern that relates the residential samples with lead levels above 500. While it is likely that exterior paint, illegal battery disposal, or other universal use is the source, the fact that this is a superfund site contaminated by other pollutants should not diminish the concern about lead exposures to urban children that has been expressed by EPA and others.

The graph in Appendix C indicates fairly universal presence of elevated lead levels along the river corridor. As soils and sediments are disturbed in the restoration, exposure levels to lead would continue to be of concern within the designated Superfund site. We ask that attention be paid to limiting dust production in the removal of sediments and other activity so as to control the pathway for further lead exposure to local residents.

Cadmium would be another contaminant for concern. No analysis for cadmium is provided nor have I reviewed the concentrations in the samples provided by Tetra Tech.

In addition, exposures to VOCs have not been adequately analyzed, or if analyzed not reported in the Tetra Tech September 2000 document, for residents in the buildings of Brook Village and Centredale Manor. See Table 1 – 1 (items 11, 12, and 13) on pages 1-10 and 1-11. We believe periodic sampling of indoor air and analyses would be in order.

5. Although EPA has been diligent in fencing the Allendale area, areas around Lymanville have not been fenced. As part of this action to prevent human exposure, consideration should be given to further warning signage and maintenance of those signs.
6. In the Site Characterization Appendix C we believe there were absences of data that would be critical or beneficial in further analysis.
 - a. Habitat Types inadequately describes the aquatic habitat. No flow, temperature or basic water quality parameters are included. Avian species expected to be found are not listed. No listing occur for salamanders, and the listing for anurans is likely incomplete.
 - b. Migratory bird species that use the river for critical foraging. I have observed

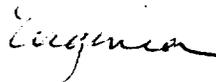
Hooded Merganser and Double-crested Cormorant feeding in the river in the project area.

In addition Figure 1, Habitat Map, in Appendix C is inadequate.

- a. The wetlands should be mapped according to a system, preferably the U. S. Fish & Wildlife Wetlands and Deep Water Classifications.
 - b. Land use mapping appears inaccurate on the Johnston side of the river, where industrial use occurs along Allendale Avenue on the Johnston side of the river.
 - c. Map does not indicate residential plats in Johnston
7. In oral comments I asked that trees in the area to be inundated by the reconstruction of Allendale Dam be cut to stump to avoid lifting roots out of contaminated sediment by blow-down after trees have died from drowning. The trees provide carbon sequestration and oxygen production.
- a. We ask that they be replaced in the area along the river, either as street trees or on other property.
 - b. Figure 3-8 "Site Restoration" box does not indicate any shrub or tree replacement along residential banks.

Thank you for this opportunity to comment.

Cordially,



Eugenia Marks
Director, Policy & Publications