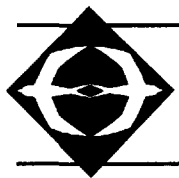


US EPA ARCHIVE DOCUMENT



OVER 100 YEARS OF EDUCATION, CONSERVATION, & ADVOCACY

Audubon Society of Rhode Island

October 12, 2006

State and Records Center
SITE: Centerdale
INVEST: 12-1
OTHER: 273418

Anna Krasko, Project Manager
Centerdale Superfund Site
U. S. EPA, Region 1
One Congress Street
Boston, MA 02114



SDMS DocID

273418

Re: proposed dam removal option

Dear Ms. Krasko:

I write as a follow up to the Dialog Meeting in July in which the PRP proposal to remove Allendale dam as a restoration to the Centerdale Superfund site was presented.

I presented questions orally at the above referenced meeting, and with this communication I repeat the questions and some further thinkg and ask that you include these ideas as you perform technical review of the PRP's proposal. My questions are based on my professional understanding of biological processes and my knowledge of the site, having served on the Management Action Committee for the site for nearly six years.

Questions:

1. The proposal would require potential removal and capping areas where actionable concentrations of dioxins have been found. In order to preserve the integrity of the capping over the lifetime of the risk concentration of the dioxins and other contaminants, how will prevention of woody growth, particularly trees, be accomplished to avoid the situation in 25 – 30 years when any tree that would grow over capped area might be up-rooted, exposing contaminants or decreasing the depth of the cap and subsequent erosion?
2. The proposal would create a flow regime different from that of the current pond. What would be the projected flood elevations, for 25, 50 and 100 year storms, across the elevation of any created river bed and flood plain? How would the edges of capping materials be protected to prevent erosion and impact to contaminant "hot spots?" How would floods of various intensity without a dam affect the forested swamp where dioxin concentrations of concern have been found?
3. What would be the difference in abundance and diversity of aquatic life in a free flowing Woonasquatucket River at this site assuming that no shrub nor tree protection along the bank were allowed to grow and that the water would thus be exposed to full sunlight? In addition, what changes in aquatic life would have a

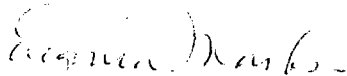


cascading affect on animals that may use current configuration of Allendale Pond life for forage (tree swallows, river otter)?

4. What would be the designed depth and width of the engineered river based on what U.S.G.S. flow data? How will the tendency of a stream to meander be controlled? Since wildlife depend on particular substrates, seasonal variation in flow, water temperature, and other factors for optimum breeding and other life cycle considerations, what target species will the design accommodate?
5. In the proposed "pool" that was highlighted as part of this design. (a) how would the pool be maintained over the depositional patterns of time and current? (b) what species would be expected to use pool? (c) have the dimensions of the pool been taken into account for these species? (d) what temperature considerations would go into the design of such a pool?
6. What would be the effect of a large area of capping on water recharge. I realize that recharge occurs throughout the watershed. However, the bedrock in the Centerdale area forms a narrow valley with Quaternary sand and gravel and alleuvial deposits. The immediate effect would seem to be runoff contributing to the flow and volume of the river. Other effects that might be reviewed are effects to the immediate water table to any existing trees between the edge of the cap and the beginning of the till deposits. Riverine wetlands would be restricted to emergent vegetation in the engineered areas. Would the proposed capping have an adverse effect on water levels of saturation in the forested swamp on the west bank immediately below the subject Allendale dam?

Thank you for reviewing these questions. I look forward to discussions and documents in which these questions are answered as we work toward a restoration plan.

Cordially,



Eugenia Marks, M.A.
Senior Director for Policy
Audubon Society of RI

Cc: Jeff Karp, Jeff Loureiro