**From:** Fein.Ronald@epamail.epa.gov
**Sent:** Thursday, June 04, 2009 12:59 PM
**To:** robin.lepore@sol.doi.gov; dm@menoyolaw.com; Kahn, Adam; Puskas, Rebecca; dthompson@keystone.org; 916175276848.r1genifax@epamail.epa.gov
**Cc:** pitt.brian@epamail.epa.gov
**Subject:** Fw: Wayland Outfall location/drawing

This is the preliminary analysis of the Wayland outfall relocation proposal from Ed Reiner of our wetlands protection unit. (Disclosure:
Ed worked for Doug for a time when Doug was at EPA.) Of course, these are preliminary comments based on preliminary information, do not represent a final position, and do not bind EPA, which reserves all its rights at the time a complete CWA 404 application is submitted.

---
Ron Fein
Assistant Regional Counsel
U.S. Environmental Protection Agency - New England 617-918-1040
----- Forwarded by Ronald Fein/R1/USEPA/US on 06/04/2009 12:50 PM -----

| | | |
|---|---|---|
| Ed Reiner/R1/USEPA/US | | To |
| | Ronald Fein/R1/USEPA/US@EPA | |
| 06/04/2009 12:30 PM | | cc |
| | | Subject |
| | Re: Wayland Outfall location/drawing | |

Without some good summer low water level photos of the specific outfall location, I can not provide meaningful site specific comments. I have been to this location and previously photographed portions of the river bank. Portions are steep and have erosion problems which may be related to stormwater discharge from Route 20. Any construction on the bank can contribute to erosion problems. Disturbance of tree roots may cause tree loss on the banks.
Water levels may vary by about nine feet from the low water drought conditions to 100-year flood levels. Typically a discharge pipe with flowing water will cause bank erosion when the water level drops below any riprap splash pad. I suggest some further consideration of the size of the stones, to be sure they are adequate to stay in place against fluctuating water levels, ice, and vandalism. I also suggest consideration of the potential need to toe in the bottom of the riprap to avoid slumping and settlement.

Lastly, I suggest further consideration of how low the stones may need to be placed to avoid erosion of the bank or wetland from the water flow which would typically occur at lower water levels. A permit condition to review the outfall site after construction during the first low water period could potentially address any unforeseen erosion issues by requiring bioengineering treatments or additional rock placement. Appropriate bank restoration re-vegetation problems can also be addressed during post construction monitoring if the initial restoration efforts are not successful.

The two plans present a small inconsistency and may need improvement.
The outfall figure states: "artificial tributary extended to Mean High Water"
The Restoration figure depicts 2-8 inch bank run stone placed to some unspecified elevation below Mean High Water.

In fresh water areas the Corps uses the term Ordinary High Water (OHW) not Mean High Water. Federal jurisdiction will cover any fill (such as the riprap) placed below OHW or in any adjacent wetlands. Since the project is within the designated Scenic River this requires at least a screening level review under Category 2 of the Corps MA PGP.

The use of the words bank run stone, hopefully avoids the potential use of angular trap rock which would not be as appropriate given the scenic river designation and concerns. A clearer description of what this means would be helpful.

The Corps will consult with National Park Service and the other federal resource agencies for review of the permit application. If the installation of the outfall affects State Route 20, coordination and potential approval with Mass Highway may also be required (separate from the Corps process). Any open cut construction can affect the traffic mitigation for the bridge project. Directional drilling may or may not be practicable, and the location and depth of any underground utilities would need to be considered. The plans or narrative should discuss the method of construction.

Edward Reiner
Senior Wetland Scientist
USEPA
1 Congress St.
Suite 1100 (CWP)
Boston, MA 02114-2023

Ph. (617) 918-1692
Fx. (617) 918-0692
e. Reiner.Ed@epa.gov