

SECTION 10. FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

10.1 FINDINGS AND CONCLUSIONS

The Main Street Dam on the Mill River in Stamford, Connecticut degrades the aquatic environment by blocking the passage of anadromous fish and altering the habitat behind the dam. In-stream habitat within Mill Pond is impacted due to low water velocity, siltation, lack of shade, shallow conditions, and apparent eutrophication. Nutrient levels, combined with the long residence time of water in Mill Pond, contribute to elevated water temperatures, algal blooms, growth of aquatic invasive species, and apparent low dissolved oxygen. Removing the Main Street Dam will enable the free passage of anadromous fish 4.5 miles upstream from the current impoundment and restoration of 5.2 miles of river in total, as well as restoring 4 acres of riparian habitat within the Mill Pond reach.

The following additional restoration actions will provide considerable gain in water quality and in-stream habitat for the Mill River corridor:

- Restoration of an additional 1.53 acres of riparian corridor through planting of native woody and herbaceous vegetation and removing exotic and invasive plant species along the riparian corridor
- Restoration of 0.8 acres of tidal wetlands along the estuarine reach of Mill River
- Restoration of fish passage near the mouth of the river by removing large concrete blocks from beneath Pulaski Street Bridge

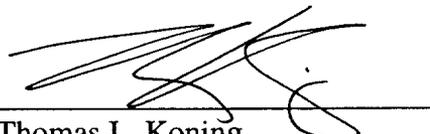
As a recreational component to the project, a trail system will be constructed through the restoration sites to connect the greenway and parks along the river corridor. This trail system will replace the existing sidewalk along Mill Pond and the informal trail system along Mill River in the restoration sites. The trail system will protect the restoration sites from human impacts and provide opportunities for interpretation and enjoyment of the restored natural river setting.

Cost effectiveness and incremental analyses were performed to evaluate the benefits of project alternatives. The recommended alternative rated the highest, with an output of 53.9 habitat units measured as effective habitat acres, by enhancing the aquatic and riparian habitats and in-stream water quality of the Mill River. The purpose of these analyses is to ensure that the economically efficient, least-cost solution is identified for each possible level of environmental output. The Mill River restoration project reasonably maximizes environmental benefits, is cost effective, and provides aquatic habitat restoration benefits that are in the national interest.

10.2 RECOMMENDATION

I recommend that the ecosystem restoration project described in this report be approved and implemented under the authority of Section 206 of the Water Resource Development Act of 1996 (PL 104-303). In my judgment, the proposed project is a justifiable expenditure of Federal funds. The total estimated cost of the project is \$5,571,000, not including operations and maintenance. Federal costs for the project are estimated to be \$3,565,000. The city of Stamford is the non-federal sponsor of this project, and the non-federal contributions toward the project, excluding operations and maintenance, are estimated to be \$2,006,000. Operations and maintenance, estimated at \$7,000 per year for the 50-year life of the project, would be the responsibility of the city of Stamford.

The recommendations contained herein reflect the information available at this time and current Departmental policies governing formulation of individual projects. They do not reflect program and budgeting priorities inherent in the formulation of the national Civil Works construction program nor the perspective of higher review levels within the Executive Branch. Consequently, the recommendations may be modified before they are authorized for implementation funding.



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