FRESHWATER INSTITUTE
THE CONSERVATION FUND

Lake Trout Hatchery Planning and Re-design

Allegheny National Fish Hatchery (Warren, PA)

SUMMARY: Allegheny NFH, located just below the Kinzua Dam along the north bank of the Allegheny River, raises lake trout for population recovery in Lake Erie and Lake Ontario. The facility was depopulated of fish in the fall of 2005 following the detection of infectious pancreatic necrosis virus (IPNV) in several lots of fish. A planning and design study was conducted to determine appropriate short and long-term options for the USFWS to address the IPNV issue at the facility and reduce the potential for future virus infections.

CHALLENGE: The hatchery wanted to reduce the risk of future IPNV infections and resume its restoration program as soon as practical.

SOLUTION: The existing infrastructure at the facility was evaluated and a qualitative risk analysis was conducted to identify potential virus vectors, which were reflected in the proposed engineering options for the facility. The proposed options considered programmatic and biological requirements of the hatchery, virus risks, and costs.

SERVICES PROVIDED:

- Production Modeling
- Infrastructure Planning
- Conceptual Design
- Epidemiologic Investigation
- Risk Assessment

RESULTS: Ten separate long and short term options were presented to the USFWS to address the virus issue facing the hatchery. Short term options included moving lake trout production to other hatcheries or renovating the existing facility infrastructure to provide increased security against viruses. Long term options proposed included reconstruction of the fish culture facilities with more water efficient processes and increased biosecurity to guard against future disease outbreaks. Recommendations were made based on the engineering design options, risk analysis, and costs, and were prepared with a primary importance of preventing a re-infection of IPNV.

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