

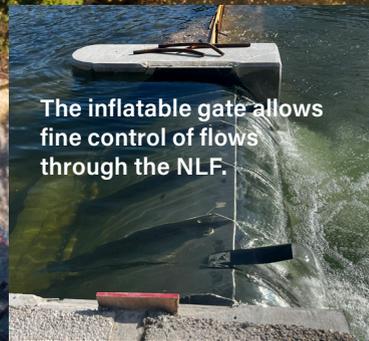
# Nature-Like Fishway

## HOOKSETT, NH

This aerial photo shows conditions immediately following construction prior to normal flows.

### Goals

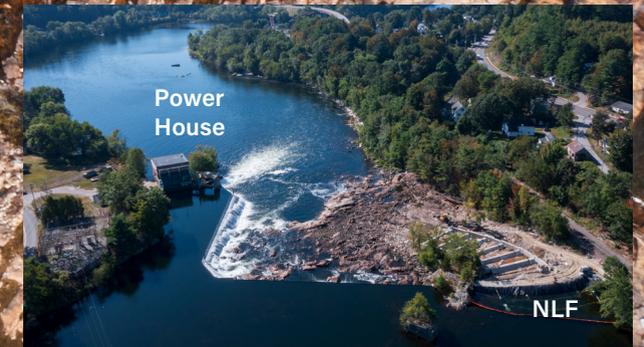
- Rehabilitate the west dam to restore passage for American Eel, River Herring, and American Shad.
- Address FERC, USFWS, and NOAA requirements for relicensing of the Hooksett Hydroelectric Project.
- Install a structure with minimal operation and maintenance needs.



The inflatable gate allows fine control of flows through the NLF.

### Innovation and Solutions

- The simplicity of the design resulted in efficient and economical construction. The NLF requires minimal operation and labor costs when compared to a range of traditional fish ladders.
- Anchoring the concrete weirs directly to bedrock is efficient and more effective against flood and other loads than other channel media.

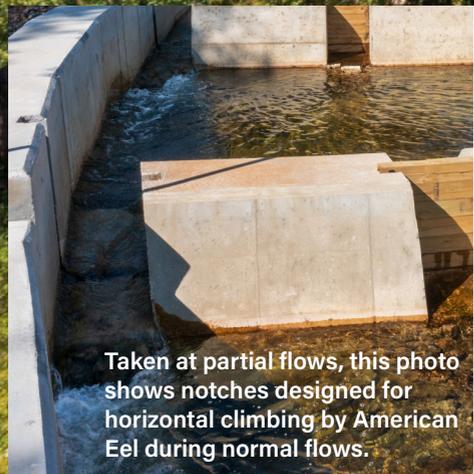


Power House

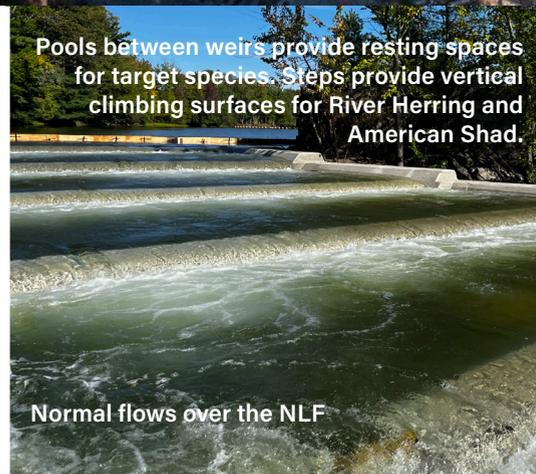
NLF

### Challenges and Complexity

- Perform hydraulic modeling of a river reach with a 100-sq-mi drainage area and develop the geometry of the overall NLF with extensive coordination with the owner and a range of regulators during preliminary design so that all parties concurred with the design.
- Design weirs on a large river that that provide passage for the target species while handling typical and flood loading.



Taken at partial flows, this photo shows notches designed for horizontal climbing by American Eel during normal flows.



Pools between weirs provide resting spaces for target species. Steps provide vertical climbing surfaces for River Herring and American Shad.

Normal flows over the NLF

