



Alternatives Analysis for Ida Lake Dam

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Department of Public Utilities

City of Troy, New York

Ida Dam: Recent History



- 2011- Storm Irene and Lee cause major flooding
- April 2012- Full Engineering Inspection shows damage to abutments
- April 2013 – FEMA award for abutments of dam due to flooding
- August 2014 – Visual inspection by engineering firm shows minor concerns

Recent History, cont.



- September 2018 – Engineering inspection under dam completed shows major deficiencies not noted before and prompts immediate action
- October 2018- Ida Lake Lowering plan completed and letter received from DEC stating Dam is unsound
- Troy Declares Emergency to protect downstream residents, properties

Recent History, cont.



- Nov. 2018 – Application for Emergency Dam Deconstruction submitted to DEC
- Jan. 2019 – Initial DEC Permit Received
- February 2019 Permit modification required and approved in July 2019, completion of deconstruction in September 2019
- September. 2019-current – Maintain opening of dam and prepare plans for future of the area.
- March 9, 2020 - Report with alternatives received



Proposed Alternatives



The City is considering three options for the site:

- replacement of existing timber structure with a concrete dam at current height
- replacement of existing timber structure with a concrete dam at a lower height
- complete removal of the existing timber dam and restoration of the creek to a natural state.

Alternative 1: Replace at original height



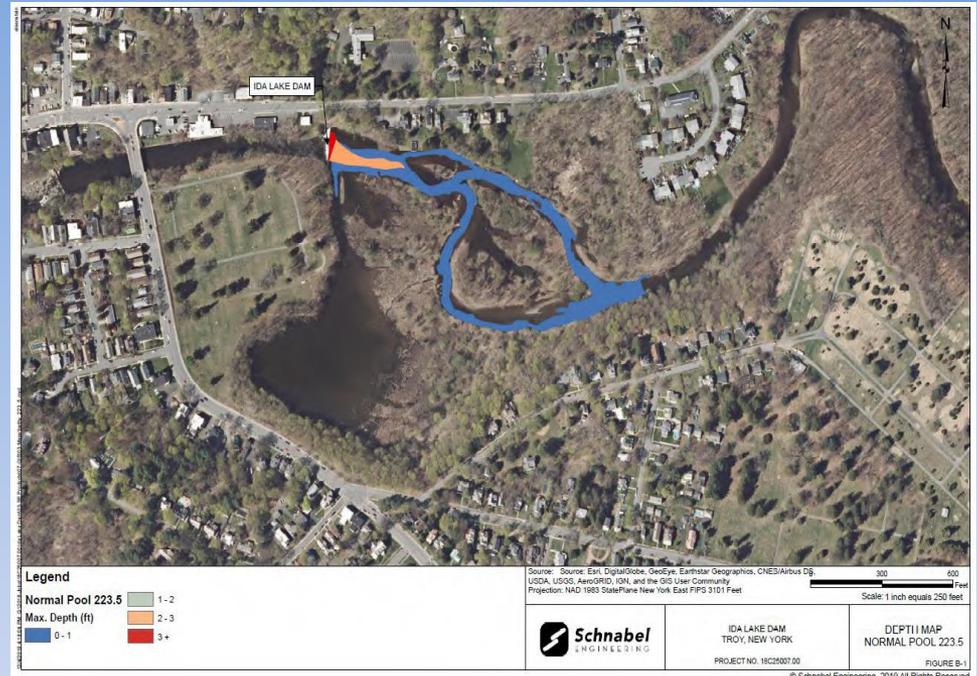
- 1) Install Low Level Outlet on North side of dam,
- 2) Construct new concrete dam,
- 3) Reconstruct Abutments on both sides
 - 1) Increase height of Northern abutment by 5.5 ft to contain 100 yr flood
 - 2) Southern abutment will be replaced at existing elevation.
- 4) Water level would return to pre-existing level with pond being 2-3 ft deep and main channel being 3+ ft,
- 5) No sediment would be removed,
- 6) Cost estimate is ~\$2,200,000,
- 7) Dam would increase to a Class B status and subject to appropriate DEC regulations and inspections. And elements of the historical factors of the dam would be incorporated



Alternative 2: Replace at reduced height (-3ft)



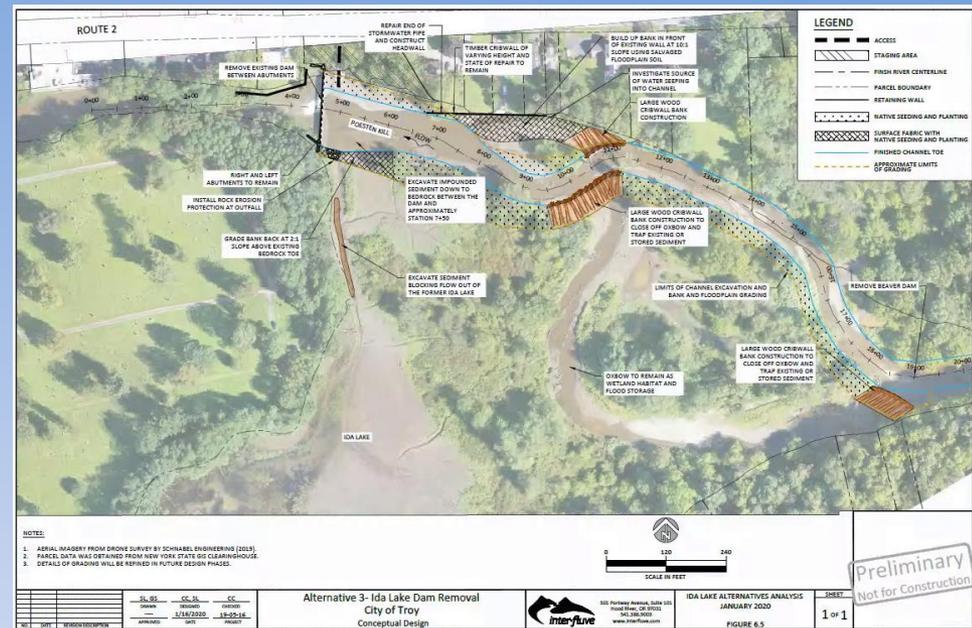
- 1) Install Low Level Outlet on North Side of Dam,
- 2) Construct new concrete dam,
- 3) Reconstruct Abutments on both sides
 - 1) Increase height of Northern abutment by 2 ft to contain 100 yr flood
 - 2) Southern abutment will be replaced at existing elevation
- 4) Water Level would return at a reduced level, and sediment would be removed as required by DEC. Ida Pond would become storm detention during heavy storm events. The main channel would be ~1 ft in depth with 2-3 ft closer to the dam structure,
- 5) Cost estimate is ~\$1,640,000,
- 6) Dam would maintain Class A status and subject to appropriate DEC regulations and inspections. And elements of the historical factors of the dam would be incorporated



Alternative 3: Removal of Dam



- 1) Removal would consist of deconstructing the dam and retaining portions of the abutments as a source of historical reference,
- 2) Removal of sediment from Poestenkill channel upstream based on DEC requirements, Bedrock is currently exposed in some locations,
- 3) Stream channel embankments will be stabilized using bioengineering methods
- 4) Areas will be seeded and planted with native riparian wetland species,
- 5) Estimated cost is between \$1,060,000 and \$2,530,000 dependent upon sediment removal requirements,
- 6) Site would no longer be considered a dam and no maintenance or inspection requirements are needed.



Public Comment



The City of Troy is accepting public comment on the “Alternatives Analysis for Ida Lake Dam” report

Please submit comments at www.troyny.gov/comment

If you prefer to file your comment on paper, mail your comment to the following address:

City of Troy, NY
Department of Public Utilities
25 Water Plant Rd
Troy, NY 12182
Attn: “Alternatives Analysis for Ida Lake Dam”

Comments must be received by **April 30th, 2020**