Dam Removal to Restore the Assabet River? Pros and Cons for Your Community

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Hydropower in New England
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My Background

- Over 35 years Hydro regulatory experience as consultant, utility employee, and Executive Director of non-profit environmental organization
- Chair of the Penobscot River Restoration Trust (buy and remove 2 dams breach a third and install nature-like fish passage).
- Past Member NHA Board of Directors
- Current Member HydroVision 2010 Steering Committee
Low Impact Hydropower Institute ("LIHI")

- Non-Profit, 501(c)(3) incorporated 1999
- Provide a market incentive to reduce impacts of hydro
- Provide credible and accepted standard for consumers to use in evaluating hydro
- Certification Program natural, cultural, and recreational resource criteria --- not size or date of construction
Hydro in New England

- Dams have been used as a source of power since colonial times
- Hydro-mechanical and later hydroelectric facilities were the backbone of the industrial revolution in New England
- Cities were built on rivers and the rivers provided power --- and a way to transport waste and wood
So, you want to rebuild or remove a Hydro Project … what to expect

- You’ll meet stakeholders
  - Local, state, and federal agencies who want you to “do the right thing”!
  - Non-Government Organizations (NGOs) who want you to “do the right thing”!
- What is the right thing?
- Before you make a kilowatt or move a chunk of concrete, You’ll work with red tape and lots of paper
If you rebuild...Possible Hydro impacts

- **Water quality**
  - Pollutants, temperature, dissolved oxygen

- **Flow**
  - Peaking, ramping, bypass reaches

- **Fish & wildlife protection**
  - Habitat loss, up and downstream passage, temperature

- **T&E Species**

- **Cultural resources**

- **Recreation**
Dam Removal Projects

- Columbia Falls, Pleasant River
  - 1987
  - Market transaction

- Edwards Dam, Kennebec River
  - Began as involuntary – settlement
  - 1990-1999

- Penobscot River Restoration Trust
  - 2000-present
  - Market transaction --- Cooperative Agreement
If you remove---possible issues you should be aware of

- Creation of mud flats – and toxic sediments
- Removal of important component of a community--your destroying “our little mill pond”
- Loss of wetlands function and value
- Invasive species (Northern Pike…)
- Loss of renewable energy potential during a period of concern over “climate change”
- All the issues we identified for the rebuild scenario!
LIHI Criteria

- River Flows
- Water Quality
- Fish Passage and Protection
- Watershed Protection
- Threatened and Endangered Species Protection
- Cultural Resources Protection
- Recreation Use and Access
- Dam Removal
Hydro’s Future ---

- A role in renewable energy and green market --- and perhaps be recognized for its longevity
- Not realistic to think we will build many new dams in the USA
- Not realistic to think we will have any involuntary removals
- Damless technologies
Questions...

and Contact information

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