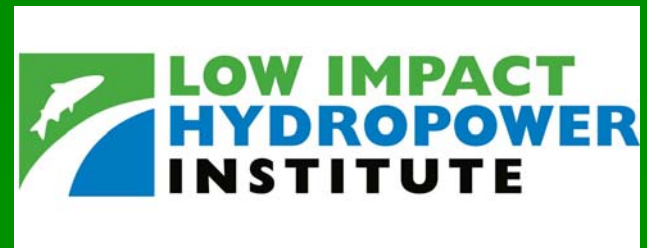


Dam Removal to Restore the Assabet River? Pros and Cons for Your Community

Forbes Municipal Building, Westborough, Massachusetts
MARCH 14, 2009

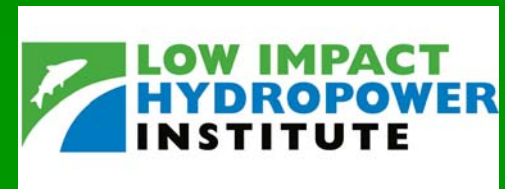
Hydropower in New England

Fred Ayer, Executive Director



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”)

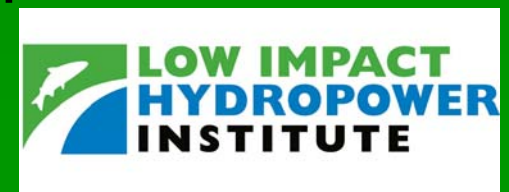
- Non-Profit, 501(c)(3) incorporated 1999
- Provide a market incentive to reduce impacts of hydro
- Provide credible and accepted standard for consumers to use in evaluating hydro
- Certification Program natural, cultural, and recreational resource criteria --- not size or date of construction

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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