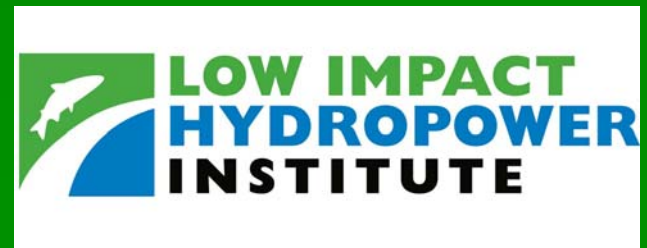


# *Dam Removal to Restore the Assabet River? Pros and Cons for Your Community*

Forbes Municipal Building, Westborough, Massachusetts  
*MARCH 14, 2009*

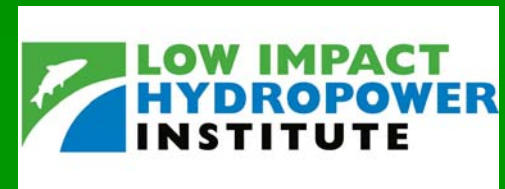
## *Hydropower in New England*

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”)

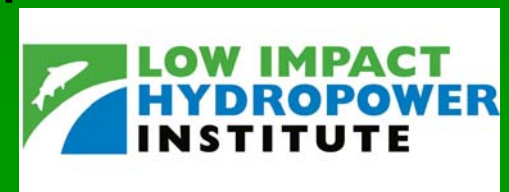
- Non-Profit, 501(c)(3) incorporated 1999
- Provide a market incentive to reduce impacts of hydro
- Provide credible and accepted standard for consumers to use in evaluating hydro
- Certification Program natural, cultural, and recreational resource criteria --- not size or date of construction

# 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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