What is Our Water Worth?

2017 Lakes Congress
NH is “water rich” & our water is *relatively* healthy overall.

- 1,000 lakes & 3,000 ponds
- 18 miles of seacoast
- 235 miles of estuarine shoreline
- 17,000 miles of rivers & streams
- **Groundwater** *(private wells serve approx. 60% of residents, businesses, schools, municipal buildings)*
The Economic Value of New Hampshire’s Surface Waters

- A multi-year, multi-phased study
  - Phase I – Research Study & Literature Review (2001)
  - Phase II – What’s our Water Worth (2003)
  - Phase IV – Economic Cost of Declining Water Quality (2006)
Phase I (2001)

Assessment of Existing Literature, Data, & Methodological Approaches

- Review existing literature & methodologies
- Evaluation of existing data – primary & secondary
- ‘Road Map’ for Phases II, III & IV
Phase II (2003)

“Estimates of Select Economic Values of NH’s Lakes, Rivers, Streams & Ponds”

- 3 Recreational Uses
  - Boating
  - Fishing
  - Swimming

- 2 Non-Recreational Uses
  - Drinking water supplies
  - Value of waterfront property (taxes)
5 Uses Contribute $1.8 Billion Annually to NH’s Economy

Phase II: Other Important Findings

• NH’s lakes, ponds, rivers & streams
  – Attract Visitors
    – 14.7 million visitor days (boating, fishing & swimming)
  – Create Jobs
    – 10,900 – 17,600 full-time & part-time jobs
  – Generate Household Income
    – $395 – 487 million
Phase III (2004)

“Public Opinion Poll Results in the Study of Select Economic Values of NH’s Lakes, Rivers, Streams and Ponds”

What do users (NH residents) think about the state’s lakes & rivers?
Phase III: How user behavior would change

• 58% would decrease use if water levels/flows worsened.

• 67% would decrease use if invasive plants worsened.

• 70% would decrease use if algal blooms worsened.

• 71% would decrease use if mercury worsened.

• 75% would decrease use if crowding worsened.
Phase IV (2006)

“The Economic Impact of Potential Decline in NH Water Quality”

How would the NH economy be affected if resident & non-resident recreationists who FISH, BOAT & SWIM perceive any negative changes to the water quality in the areas where they recreate?
50-66% of visitors would decrease visits to NH lakes & rivers if they perceived any of the following:

- Increased crowding
- Decline in natural beauty & scenery
- Decline in water clarity & purity
  - more algae
  - more mercury
  - more invasive species
- Decline in water levels & flows

Estimated Losses:
- 2,020 Jobs
- $45 Million in Income
- $127 Million in Sales

“The Economic Impact of Potential Decline in NH Water Quality: The Link Between Visitor Perceptions, Usage and Spending”
(Phase IV Report, May 2007)
5 Uses Contribute $1.8 Billion Annually to NH’s Economy

- Boating
  $328 - $450 Million

- Fishing
  $245 - $352 Million

- Swimming
  $269 - $380 Million

- Drinking Water
  $276 - $301 Million

- Waterfront Taxes
  $247 Million

Estimated Losses:
- 2,020 Jobs
- $45 Million in Income
- $127 Million in Sales

A perceived decline in water quality could mean lost recreational sales, income, & jobs.

What’s Our Water Worth?

North Woods
Lost sales: $1.8 million
Lost income: $40,000
Lost jobs: 29

White Mountains
Lost sales: $11.8 million
Lost income: $4.2 million
Lost jobs: 189

Dartmouth-Sunapee
Lost sales: $870,000
Lost income: $310,000
Lost jobs: 14

Lakes Region
Lost sales: $25 million
Lost income: $8.3 million
Lost jobs: 396

Merrimack Valley
Lost sales: $8.3 million
Lost income: $3 million
Lost jobs: 111
What Has Been the Impact of These Studies?

• A great opening statement to capture the attention of public policy decision makers: “Our lakes contribute over $1.5B each year to our state’s GDP”

• Lake protections laws such as:
  – The Water Quality Shoreland Protection Act
  – Dedicated funding for the prevention and management of Aquatic Invasive Species
  – Water Quality and Watershed Protection Ordinances at the municipal level

• Further Study and Broader-Based Coalitions
  – Legislative Water Infrastructure Sustainability Commission (SB 60)
  – Governor’s Water Sustainability Commission (reported out in 2012)
  – NH Lives on Water: working to update and broaden the What is Our Water Worth study
“Phase V”: What is Our Water Worth Today?

And What Are The Most Important Questions to Ask?

• How do you value your lake and how should we measure those values?
• What lake values did we miss in our previous studies?
• What hasn’t been accounted for?
• Who else needs to be contacted or involved?
• What are some additional ways that the project consultant and the project steering committee can further engage lake advocates like yourselves?
• How do you envision NH LAKES or your group using the study results?