

Buffer Options *for the* Bay

AFFECTIONATELY KNOWN AS BOB

Saving Special Places, April 2018

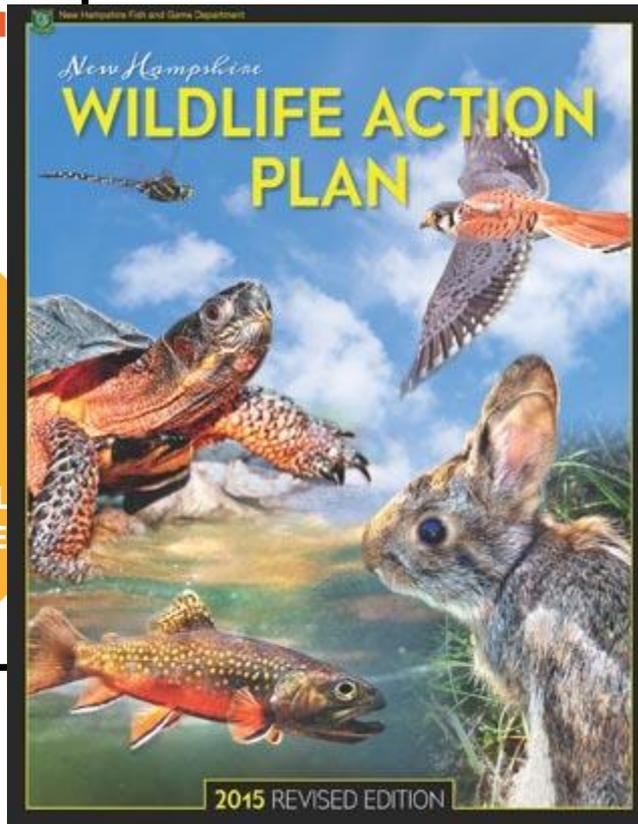
Cory Riley & Dave Patrick



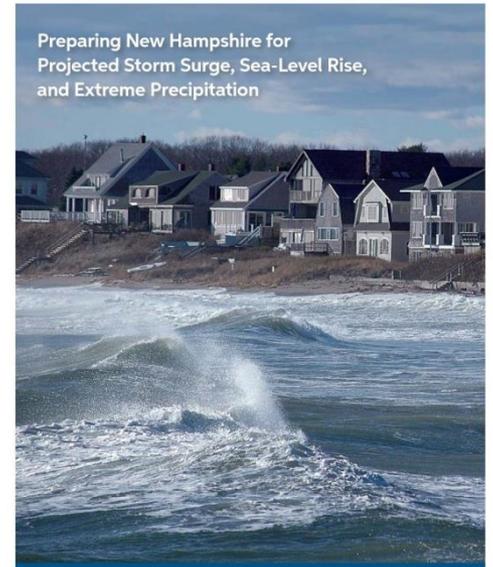
The team



Context



NEW HAMPSHIRE COASTAL RISK AND HAZARDS COMMISSION



Final Report and Recommendations

November 2016

What is a Buffer?



Why do we care about buffers?

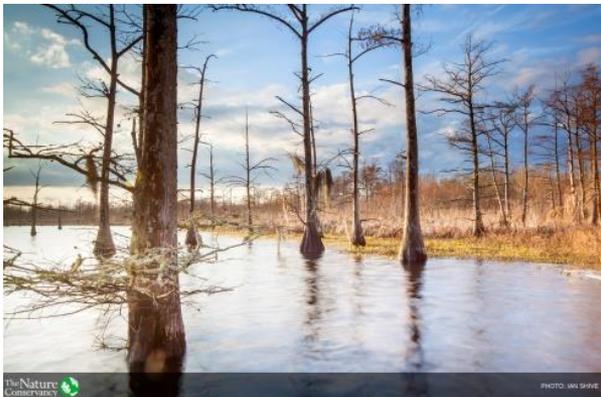
Promote water quality



Reduce Erosion



Reduced flood risk



Promote fish and Wildlife Habitat

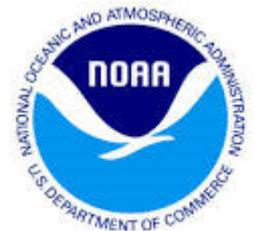


Buffer Options *for the* Bay

What: A grant-sponsored collaboration of public, academic, and nonprofit organizations

Purpose: To enhance the capacity of NH stakeholders to make informed decisions about buffer restoration and protection in the Great Bay region

Funded by: *NERRS Science Collaborative, a partnership between NOAA and the University of Michigan*



What do we mean by “enhanced capacity”?



Increased use of vegetated buffers in strategic places

Practitioners have access to the right information;

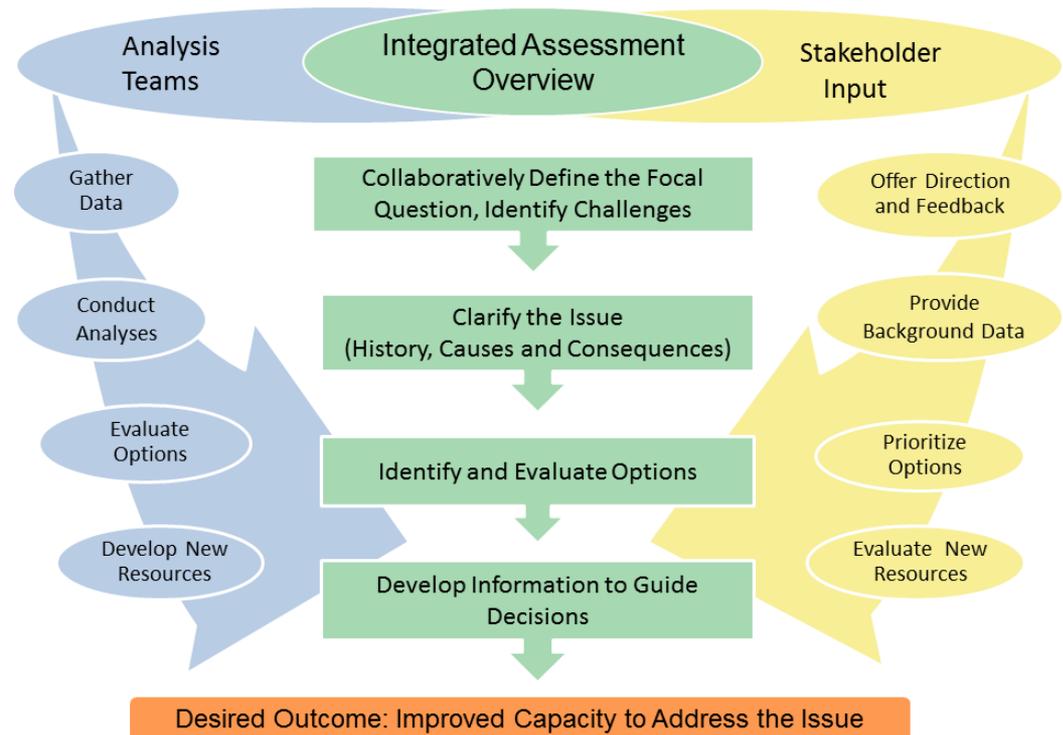
People understand the value of buffer protection;

A clear, well-coordinated regulatory framework is in place;

The best available science is used.

What did our team do?

- We summarized the existing best available information
- We have not proposed a solution or a right answer to this problem, rather we pulled information together so stakeholders can do that for themselves



How did we attempt to integrate science and stakeholder perspectives?

- Diverse experts and management perspectives on the team
- Peer review of our plan and our products
- Active engagement of an Advisory Committee along the way
- Public comment (that's today!)

TODAY: We would love to hear your thoughts on if you would use this resource, why or why not, what you would like to see in our action plan.....and anything else.

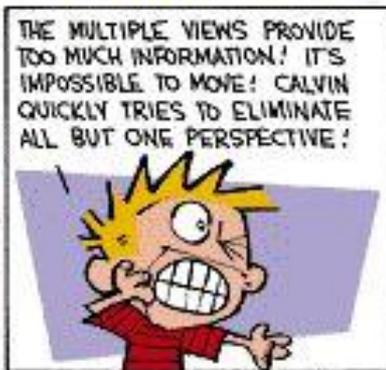
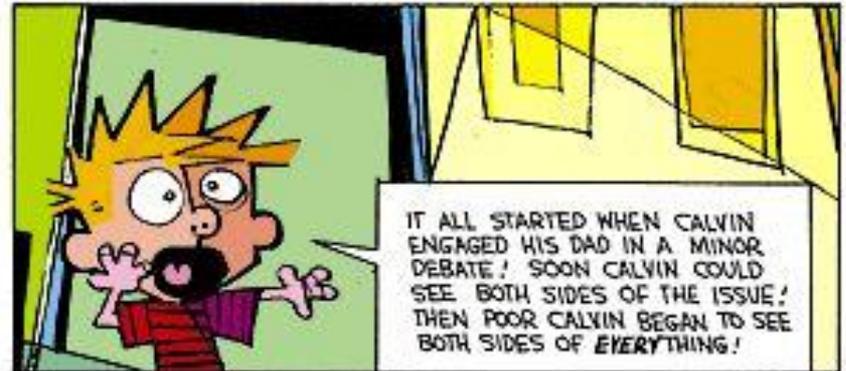
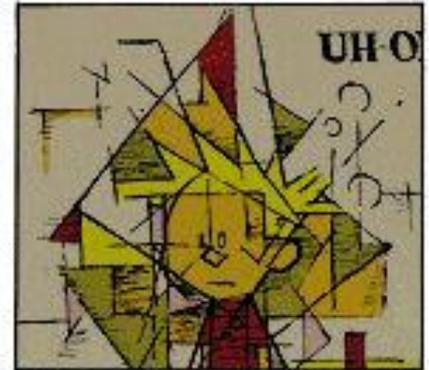
What did we produce?

- A website with helpful summaries, maps, graphics, and copies of....
- Executive summary
- Coastal science literature review
- Policy analysis
- Community assessment
- Economic valuation of Great Bay ecosystem services
- Mapping products
- Economic literature review
- Social science literature compilation
- Action plan

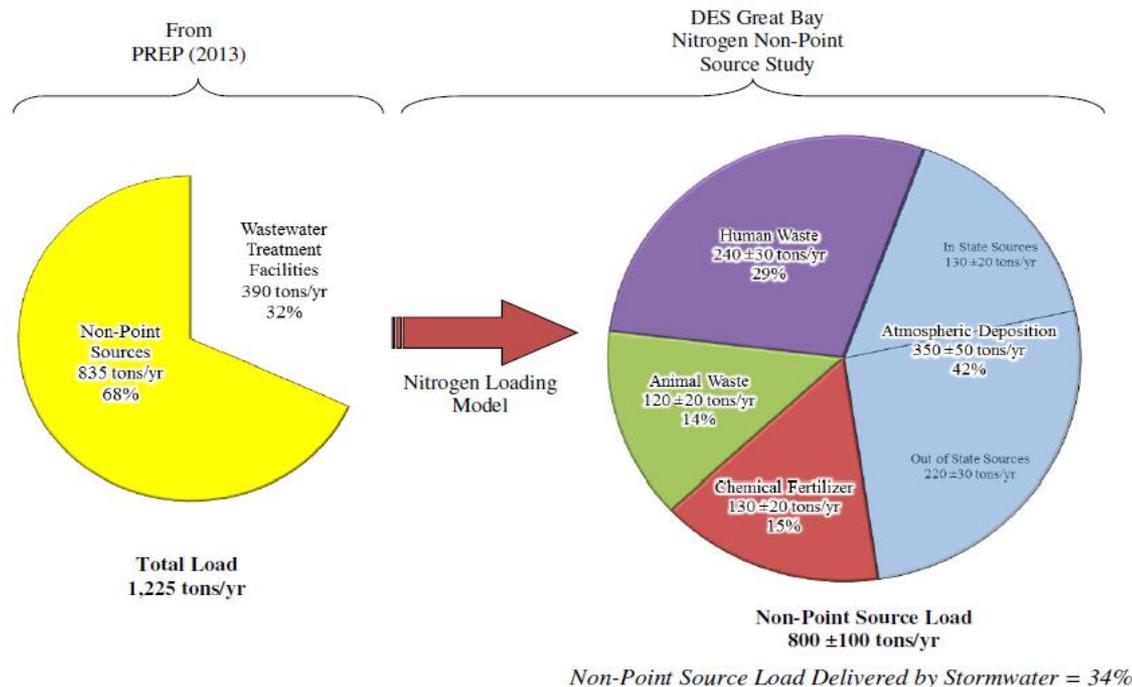
WHAT DID WE LEARN?

calvin and hobbes

by BILLY WATSON



There are problems in the Coastal Watershed, and unless we do things differently in the future, they're going to get worse



Impervious surface cover trends in the Great Bay Estuary region. Provided by Piscataqua Region Estuaries Partnership (Round 2013).
 Great Bay Nitrogen Non-Point Source Study NH DES 2014.

People care and are “willing to pay” for these services

Promote water quality



Reduced erosion



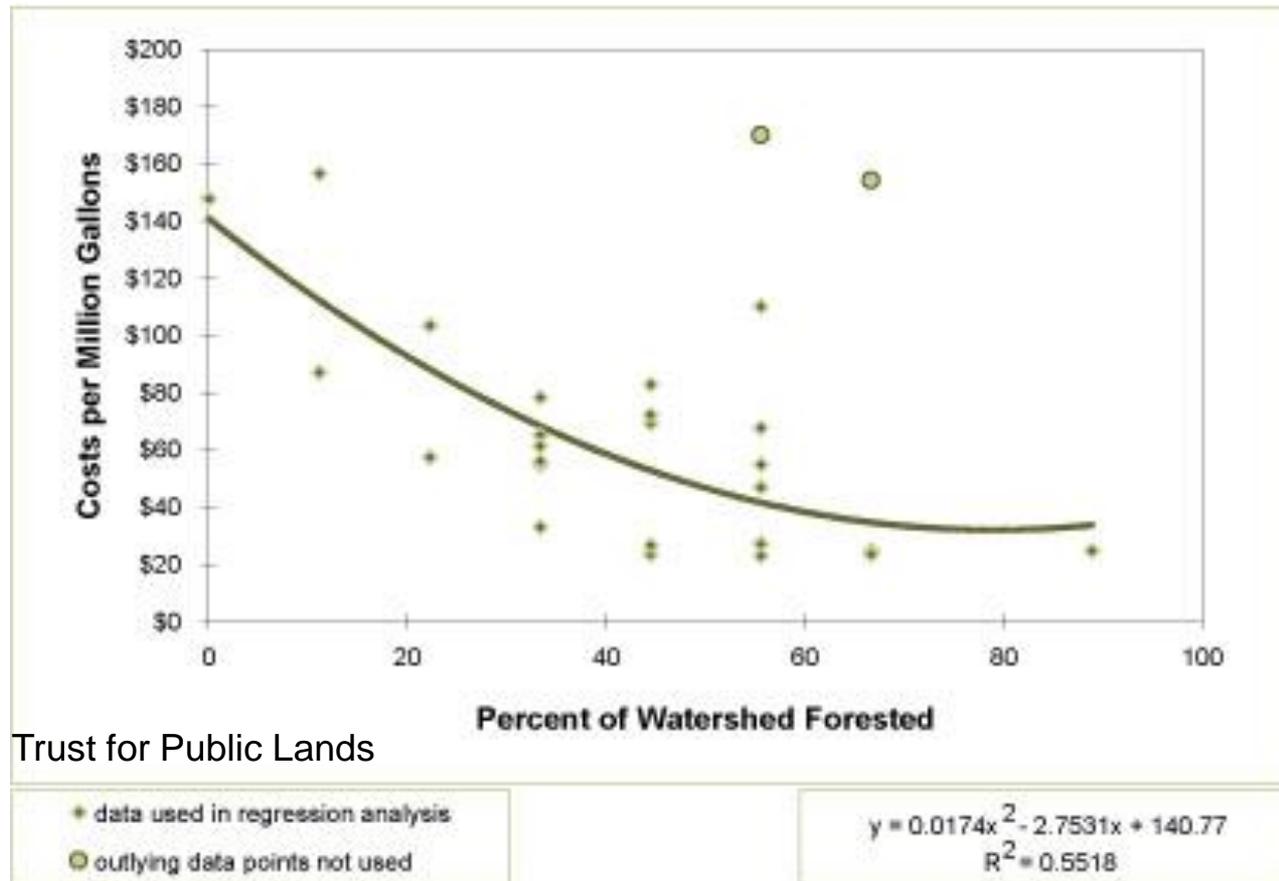
Reduced flood risk



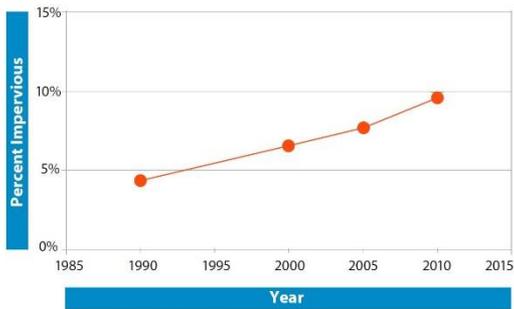
Fish and wildlife habitat



Buffers are an effective tool for maintaining these services



Percent of land area covered by impervious surfaces in the Piscataqua Region watershed, 1990-2010



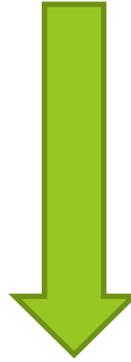
Data Source: UNH Complex Systems Research Center



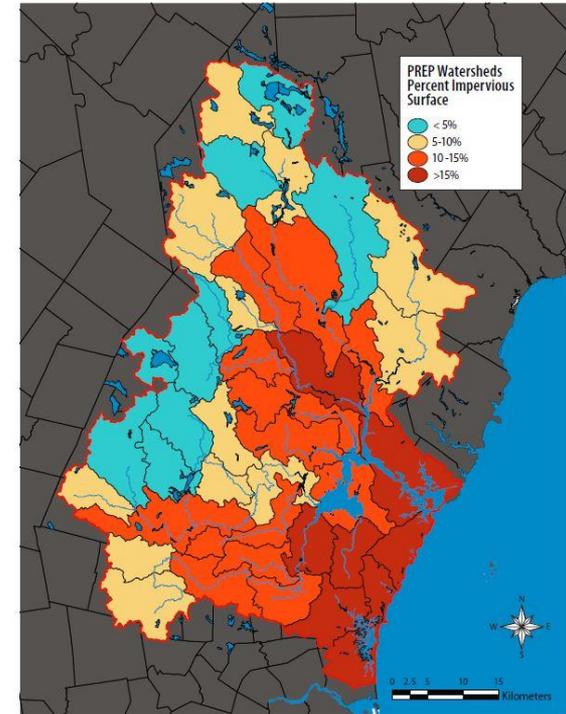
Drivers of natural resource management decisions



Socio-Economic Analyses



Impervious surface cover in Piscataqua Region subwatersheds



Data Source: UNH Complex Systems Research Center

Community Assessment

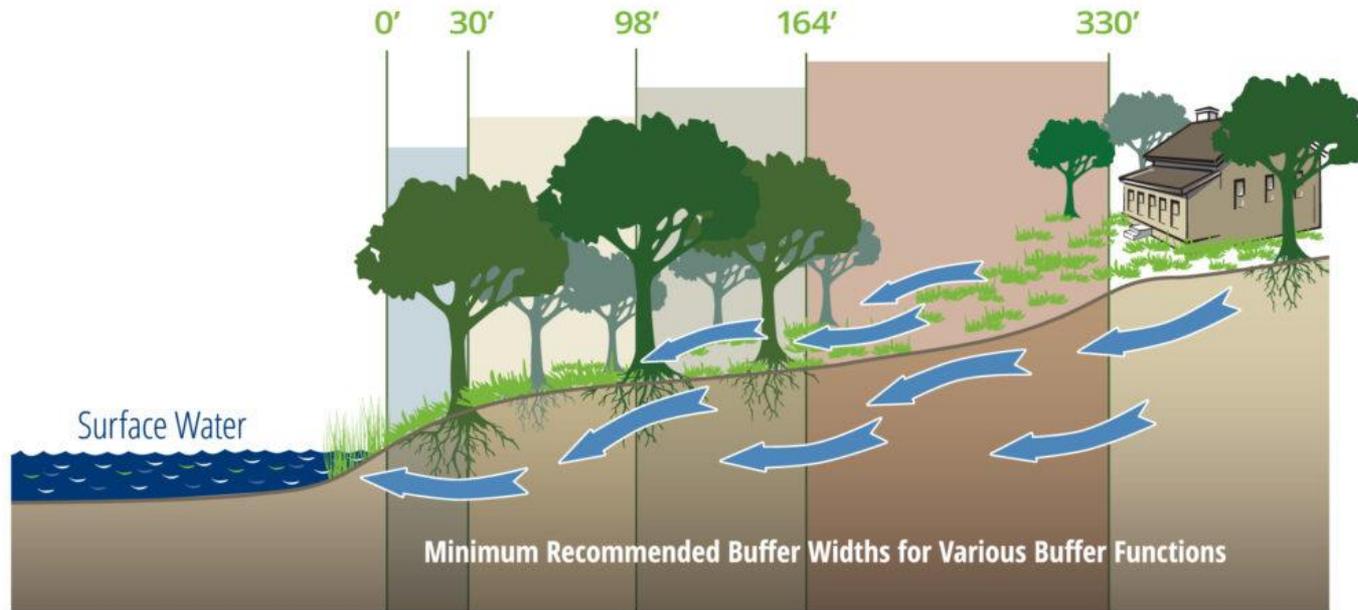
- Competing values at the community scale, e.g.
 - Buffer conservation versus economic growth
 - Rural character versus private property rights



Existing Regulation

- New Hampshire's approach to wetland buffer regulation is decentralized
- Regulations in buffer areas limited to water bodies covered by
 - Shoreland Water Quality Protection Act
 - Prime Wetlands
 - Tidal Buffer Zones
 - Designated Rivers
- For many streams and rivers, buffers are not mandated by the state
- If communities want greater buffer protection, they need to develop local regulations
- This leads to mosaic of different regulations among communities

Current regulations aren't enough



Buffer Options
for the Bay

www.bufferoptionsnh.org

- 30 FT** Influence Water Temperature
- 98 FT** Remove Pollutants. Habitat for Aquatic Macroinvertebrates & Fish
- 164 FT** Reduce Runoff & Stabilize Channel Bank
- 330 FT** Habitat for Terrestrial Wildlife

Current buffer regulations represent a compromise, but is there room for improvement?



MOVING FROM KNOWLEDGE
TO ACTION: WHERE DO WE
GO FROM HERE?

How do we address these concerns?

- Revisit the lessons learned from each aspect of the BOB project and look beyond New Hampshire's borders
- Begin with the science

Given evidence of inadequate buffers, how wide should they be?

Potential options for assigning width

- 1) Single width
 - 100 feet is a good target
- 2) Different widths assigned to specific groups of identified resource values
- 3) Different widths assigned based on fine-scale factors

Intersection with Other Factors

- Science is a good starting point, but how does it intersect with socio-economics?
- This intersection informs regulatory and non-regulatory options to more effectively protect and restore buffer zones

Could we change existing regulations? A lesson from outside NH



Rhode Island's Approach

- The state decided in 2017 to overhaul its decentralized wetland policies
- It placed sole authority to regulate wetlands and buffers with state agencies
- It's now considering an innovative tiered approach to classify the buffer regulations

Non-regulatory Approaches: Easements

- Can more fully compensate private landowners for the cost of conserving or restoring buffers
- Funding available through land trusts, USDA etc.

Other non-regulatory options

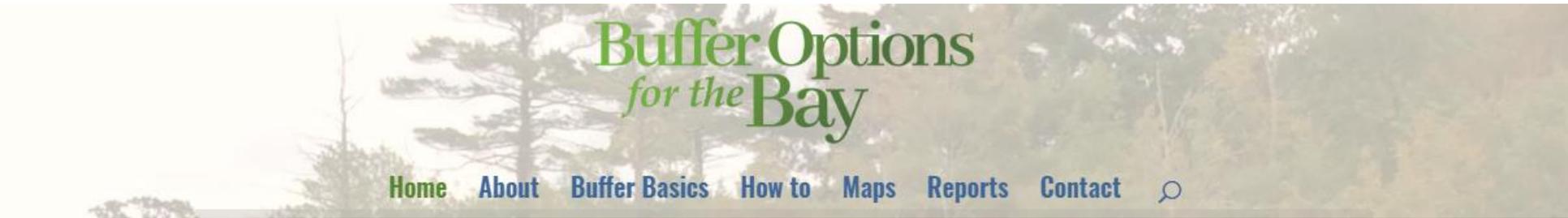
- Tax deductions
- Tax credits
- Resource regulation exchange

An example of how our findings will be used: The Nature Conservancy



Explore the website

- www.bufferoptionsnh.org



Buffer Options
for the Bay

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