

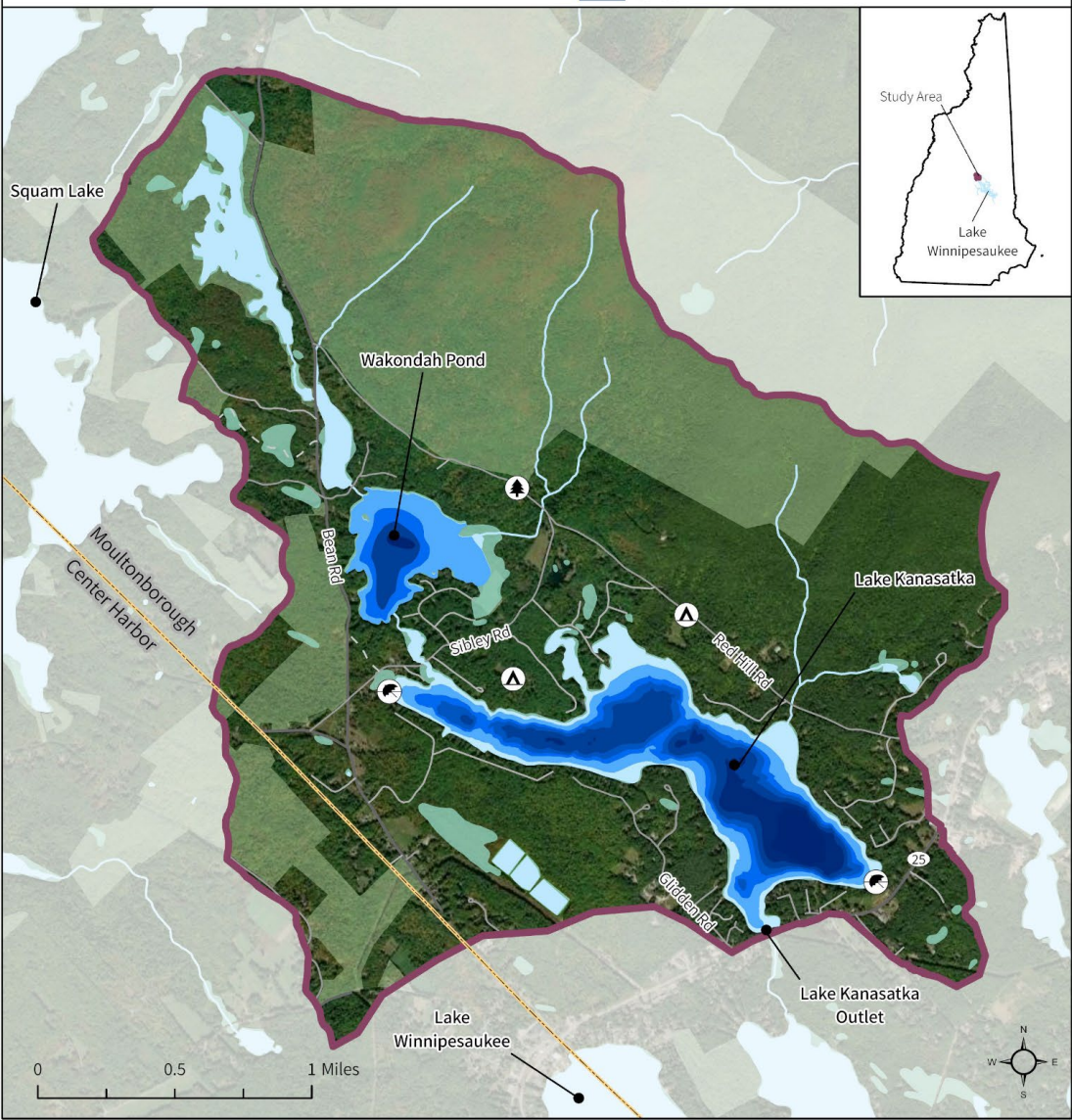
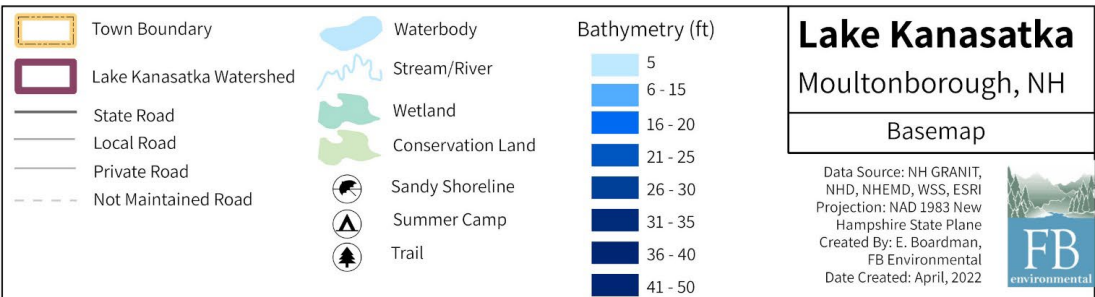
EMBARKING ON A WATERSHED MANAGEMENT PLAN FOR LAKE KANASATKA

**Tim Baker Advisory Board Member
Lake Kanasatka Watershed Association**

**Forrest Bell, Owner/CEO
FB Environmental Associates**

LAKE KANASATKA WATERSHED ASSOCIATION (LKWA) - WHO WE ARE

- **A 501(c)3 non-profit organization founded in 1971**
- **Approximately 150 members**
- **Established to promote the conservation of the quality of the environment in the area in the watershed of Lake Kanasatka**
- **Including the conservation of the natural resources of the land, water, marshland, woodland and open spaces, as well as the plant and animal life therein, and the protection of the water quality of Lake Kanasatka and its tributaries against pollution**



BACKGROUND

~2017-2019	LKWA began a discussion of a WMP as long-term goal to insure long term viability of lake and watershed – address low in-lake dissolved oxygen levels
August 2020	Lake-wide cyanobacteria bloom, NHDES issued lake advisory, impacts to health, recreation – 14 days. Door to door information campaign to raise awareness
Late Aug-September 2020	Localized blooms, NHDES reissues lake advisory – 10 days
October 1	LKWA Advisory Board charts Ad-Hoc WMP exploratory committee
November 12	Ad-Hoc committee recommends LKWA move forward with the development of a WMP, contract with FB Environmental Associates and seek town funding support
November 30	LKWA Advisory Board approves Ad-Hoc recommendation and authorizes \$5k for early work (50% of funds)
December 10	LKWA signs contract with FB to begin project management and water quality gap review tasks

NEXT STEPS – BEGIN EDUCATION / FUNDRAISING

- Communication is KEY – Grass Roots Approach
- Provide the answers
 - What/Why complete a WMP?
 - How much does it cost?
 - Who's going to pay?
 - What do we get?
 - What do “I” get?

WHAT DID WE DO – STARTED “LOCAL”

- Jan 2021 canvassed lake property owners to collect signatures
- Target to be on Warrant for May 2021 town meeting
- Goal to raise \$25k plus \$60k “ask” from the town
- Met with Conservation Committee
- Met with Board of Selectman
- March 2021
 - Acquired the necessary signatures
 - GOOD NEWS - ARTICLE PLACED ON WARRANT!
 - BAD NEWS – Board of Selectman rendered a 5-0 NO Recommendation

TIME TO TURN UP THE VOLUME - GET THE WORD OUT TO STAKEHOLDERS

- Website postings - education and appeal
- Social Media postings
- Letters to the editor
- Direct informational mailings
- Direct appeal letters
- Knocked on doors
- Road signs were placed to publicize Warrant article
- Further meetings with the Conservation Committee - supportive
- “Go fund me” page in memoriam
 - \$ Funds began coming in

GAME DAY...TOWN MEETING

- Voters met outside by volunteers with informational brochures
- Process in place - we had demonstrated support and raised >\$20k
- One time \$60k ask from the town
- Communicated value of the lake to the town – direct and indirect
- Communicated impact on other lakes - Winnipесаaukee
- Five speakers ready to go
 - Residents, AB member, FB Environmental, Con Comm

AFTER INITIAL SPEAKERS TIDE STARTED TO TURN.....

- Additional residents rose to speak in support
- After hearing the personal testaments, the BOS revisited their initial position and voted 5-0 in full support of the Article
- Educated voters had reset the priorities of the community .. real time!
- Town vote returned FULL SUPPORT of the Article

LKWA AWARDED \$60K TO FULLY FUND THEIR WATERSHED MANAGEMENT PLAN!

LESSONS LEARNED

- Get the word out early and often to all stakeholders
 - Be passionate
- Utilize multiple communication channels
 - High tech / old school
- Educate stakeholders
 - Little picture, big picture
- Meet with local officials – work for their support
- Bring in outside expertise – legitimacy

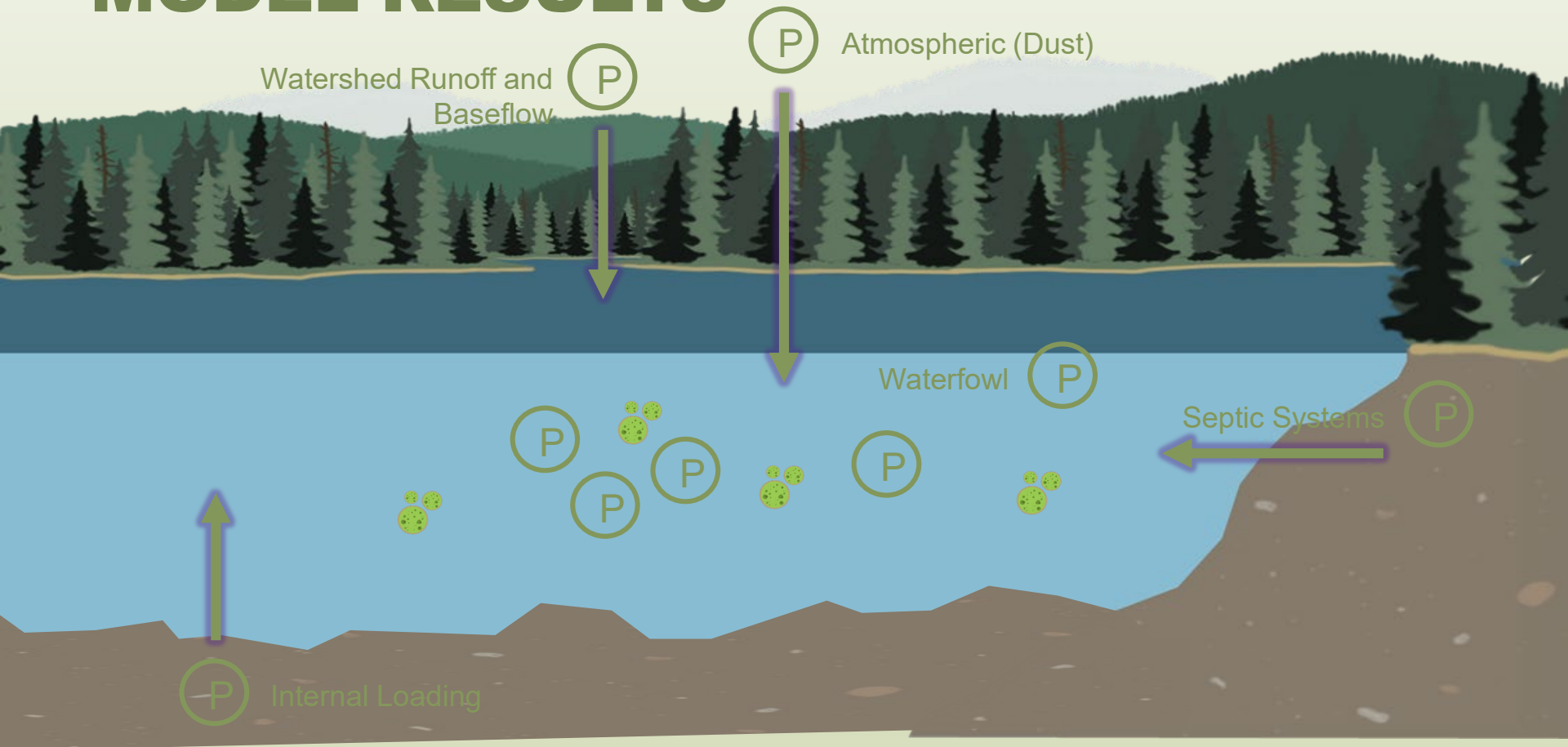
IT TAKES A VILLAGE – BUT IT WORKS!

LAKE KANASATKA WATERSHED PLAN—WHAT HAVE WE LEARNED?

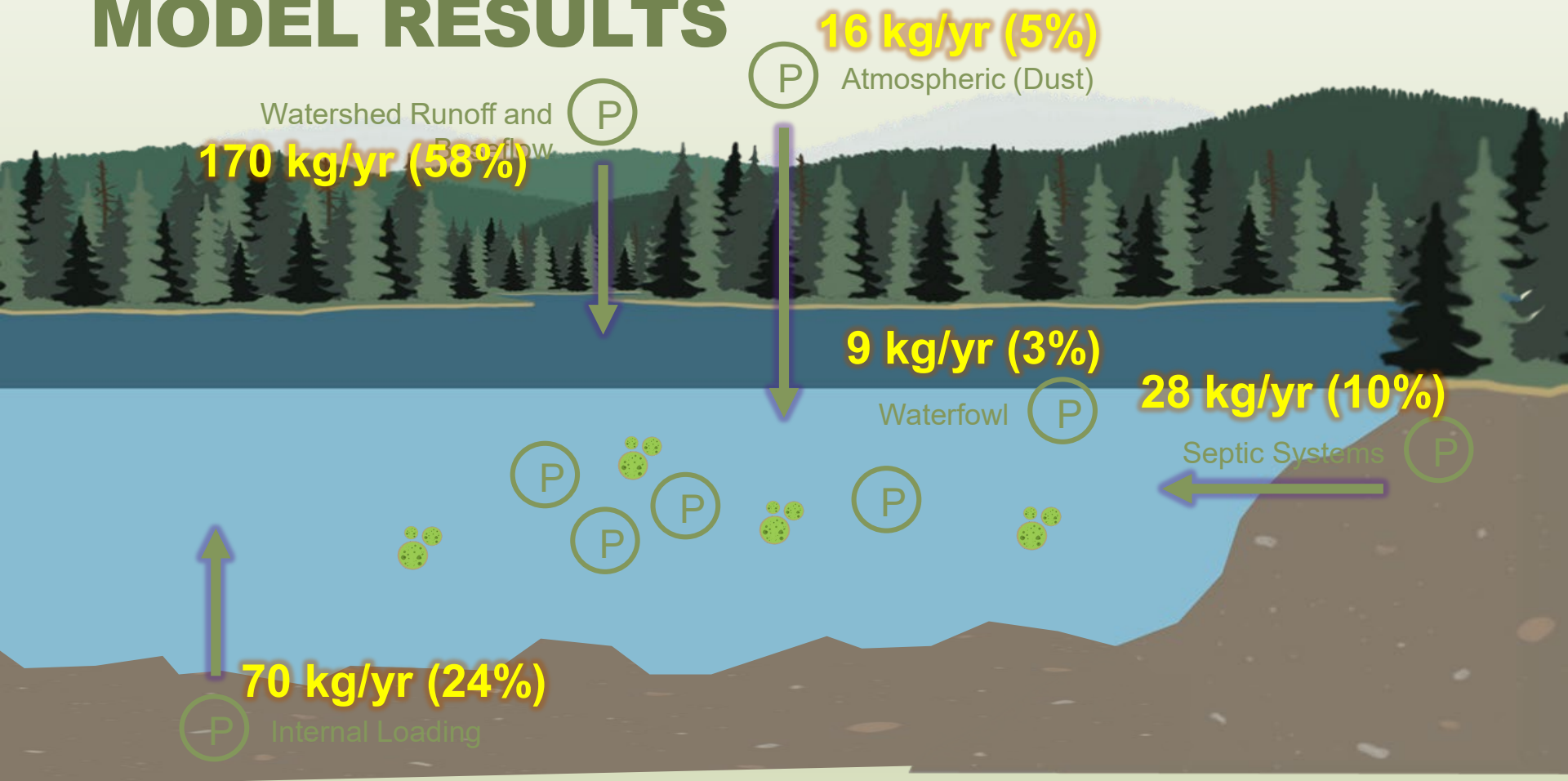
- **Major cyano advisories** posted in 2020 and 2021
- Tipping point? A few working theories...the overarching theme being a perfect storm of **climate change with excess nutrient loading**
- Reduced snowpack cover, earlier ice-out, decreased groundwater supply, lack of predation, warmer summers
- **Where is the phosphorus coming from?**



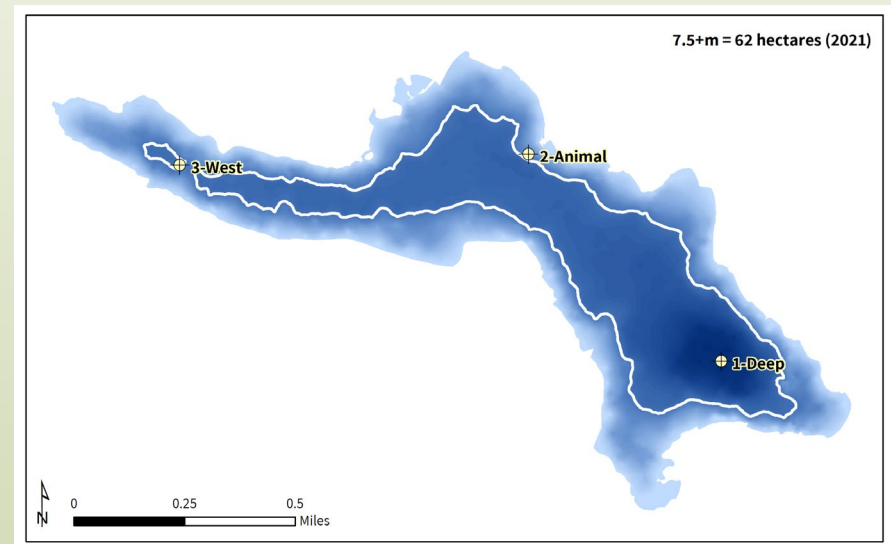
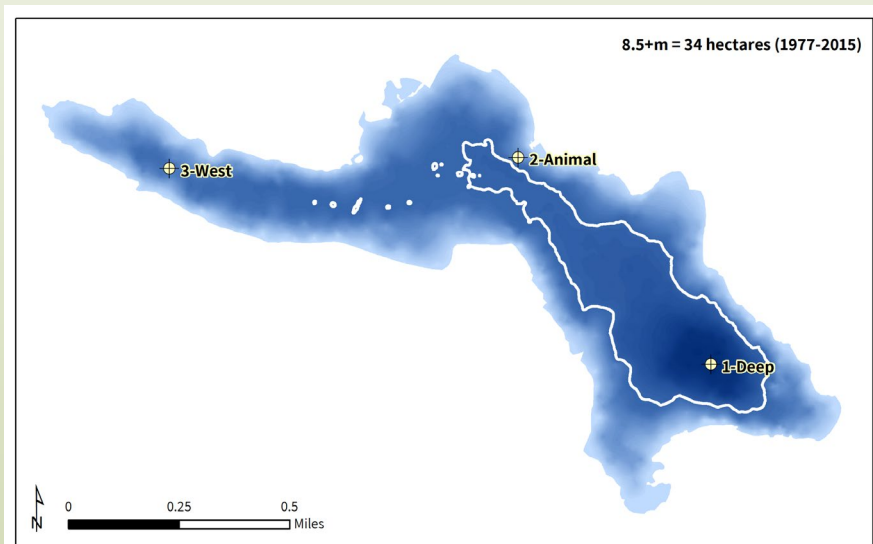
MODEL RESULTS



MODEL RESULTS



INTERNAL LOADING IMPACT



Frequency and severity of blooms will likely increase in the future if left untreated

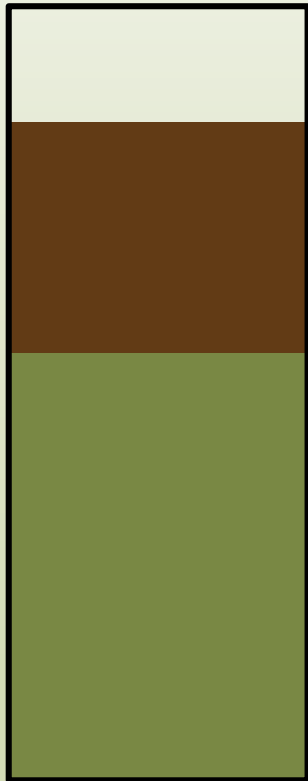
WATER QUALITY GOAL & OBJECTIVES

The goal of the Lake Kanasatka WMP is to improve the water quality of Lake Kanasatka such that it meets state water quality standards for the protection of ALL.

Objective 1: Reduce pollutant loading from existing development by **20% (59 kg/yr)** .

Objective 2: Mitigate (prevent or offset) pollutant loading from future development by **40 kg/yr** .

ESTIMATED COST FOR RESTORATION



EXTERNAL WATERSHED LOAD

\$650,000 [22 watershed survey sites]

\$400,000 [3 high impact, 118 medium impact shoreline survey sites]

\$200,000 [road maintenance]

TBD [septic system management]

INTERNAL LOAD

\$500,000 [possible future in-lake treatment] -
more data and analysis needed

OTHER SOLUTIONS

\$20,000 [education & outreach]

\$50,000 [monitoring]

TBD [municipal planning, land conservation]

**\$1-2
MILLION+**



Thank You