



Cyanobacteria:

Lake Protective Actions for Homeowners

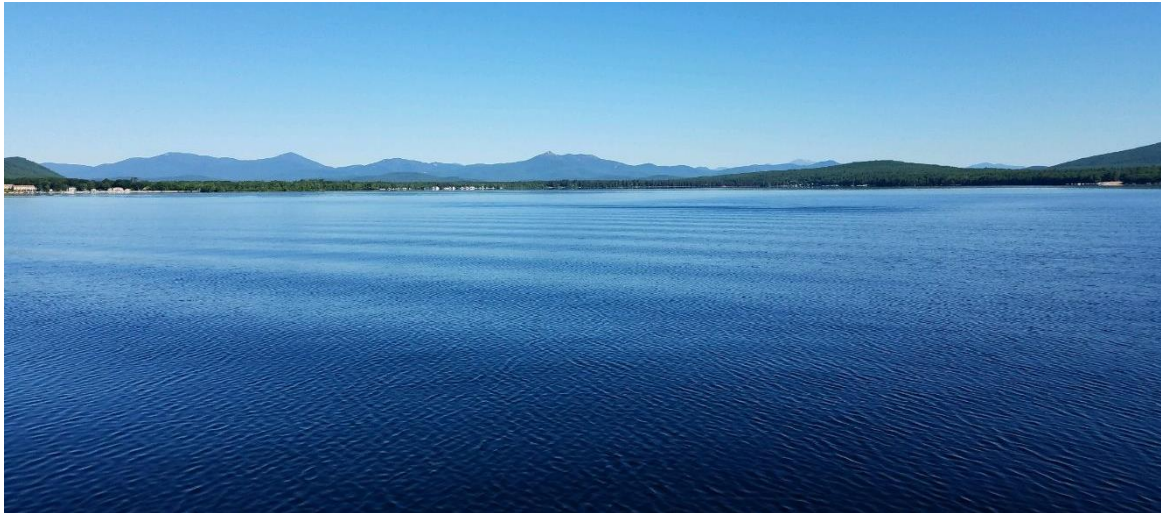
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April 17, 2024 Cyanobacteria Webinar



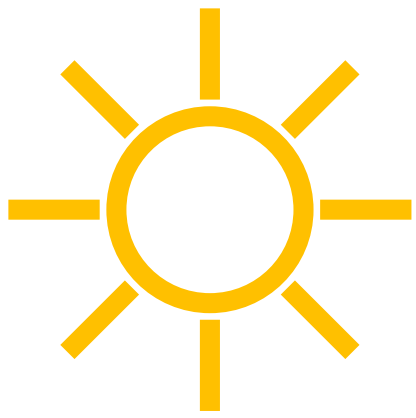
Outline

- Why reduce nutrients?
- Soak Up the Rain (NHDES)
- LakeSmart (NH LAKES)
- Actions for homeowners



New Hampshire Cyanobacteria Plan

- **Strategy 1: Develop policies and practices to reduce, control and prevent the nutrient inputs that cause cyanobacteria blooms.**
- Strategy 2: Advance education/outreach efforts
- Strategy 3: Enhance monitoring
- Strategy 4: Practices for public drinking water supplies



Why talk about nutrients?

Sunlight + More Nutrients (P) + Warm Water
=
Cyanobacteria Blooms



Where do the nutrients come from?



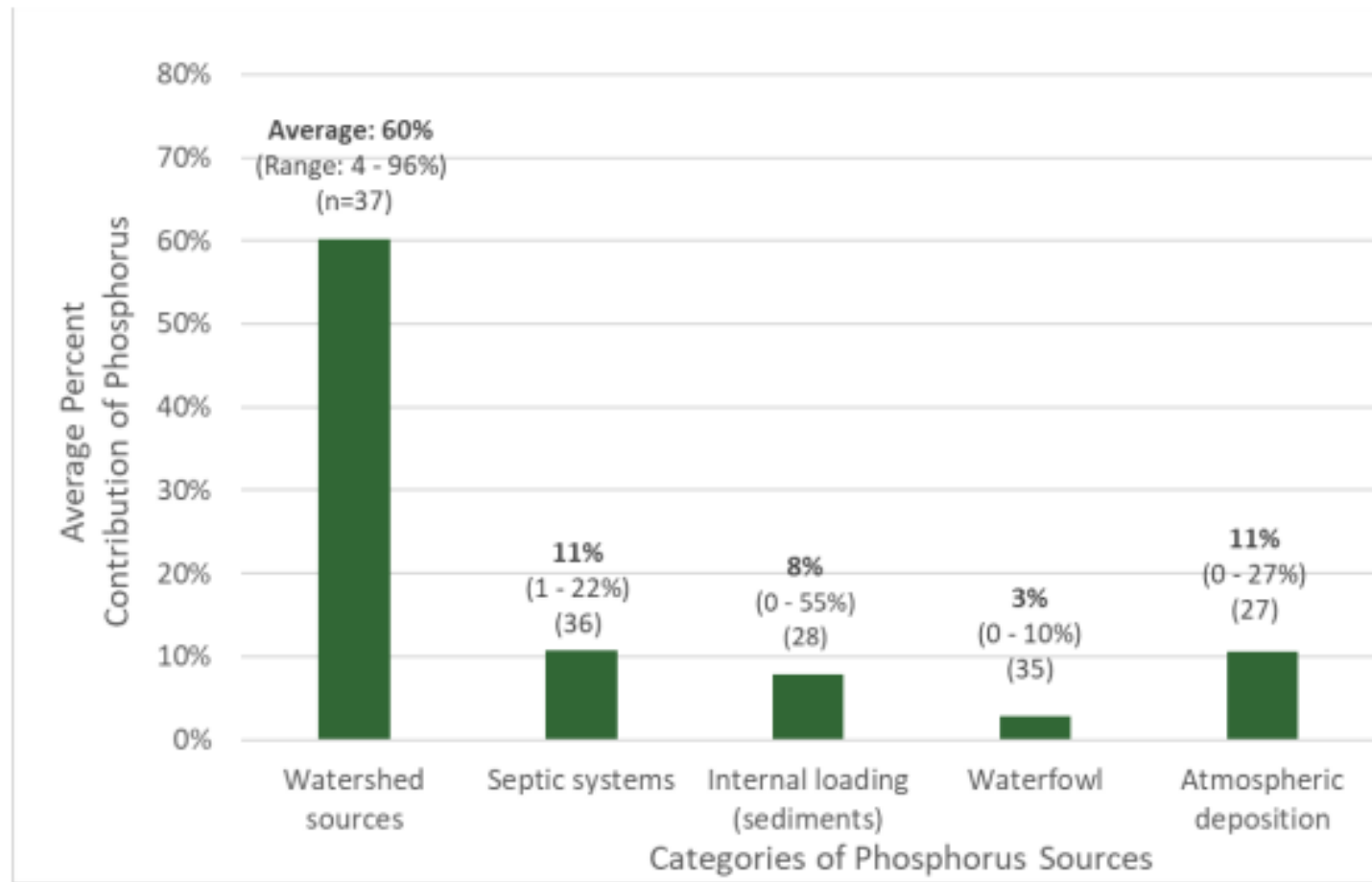
Photo Credit: Ed Rippe, Crystal Lake (Enfield)

STORMWATER!



Photo Credit: Ed Rippe, Crystal Lake (Enfield)

Where do the nutrients come from?

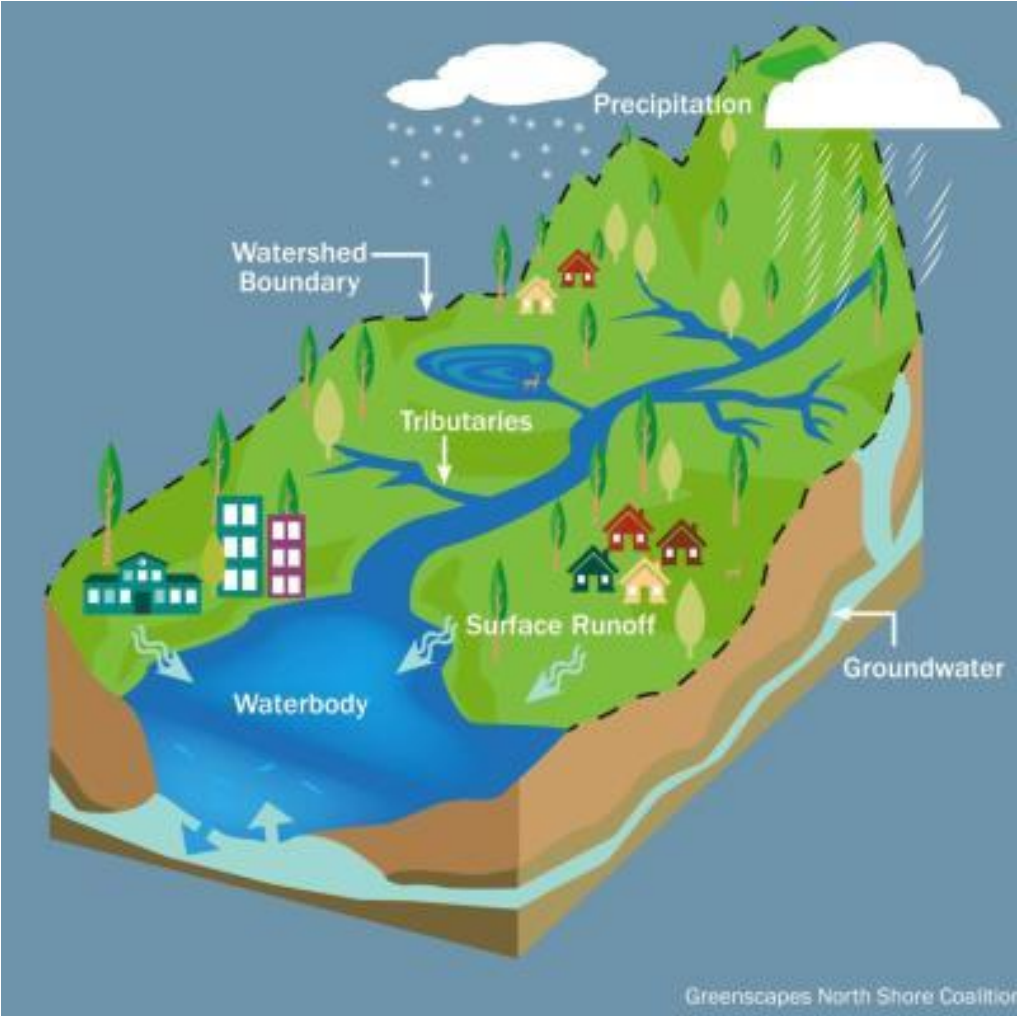


Where does the stormwater come from?

The Watershed!



Water flows through the watershed



Watershed-based approach needed...



... and that means you!

Resources for Homeowners

- Soak Up the Rain



- <https://www4.des.state.nh.us/SoakNH/>

- LakeSmart Program



- <https://nhlakes.org/lakesmart/>

What can a homeowner do?

1. Improve stormwater management
2. Vegetate your shoreline
3. Maintain your septic system
4. Be careful with fertilizers
5. Spread the word



1. Improve stormwater management/reduce erosion

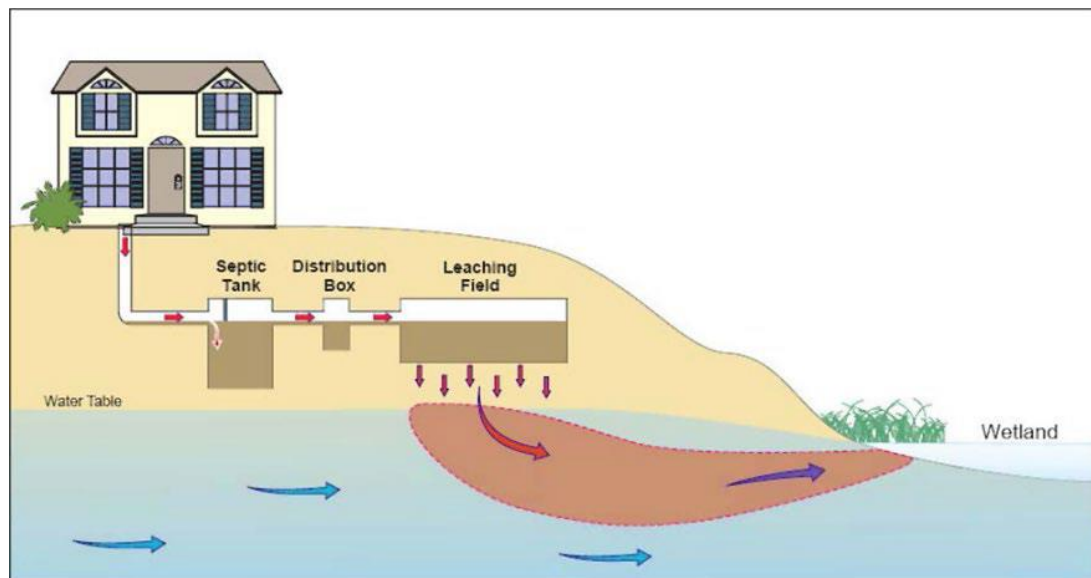


2. Vegetate your shoreline



- Shorelines are the lake's last defense
- Native plants:
 - Increase infiltration
 - Reduce ice damage
 - Reduce erosion/wake damage
 - Eliminate the need for fertilizer
 - Support biodiversity

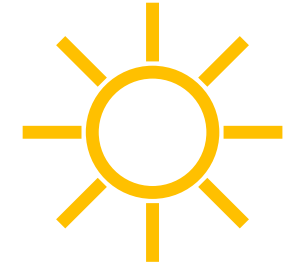
3. Upgrade/maintain your septic system



- Inspect/pump every 3 years
- Educate
- Collaborate: Pump-out Program
- Prevents harmful bacteria that makes people sick
- Reduces nutrient pollution that causes cyanobacteria blooms

4. Be careful with fertilizers

- Ask if you need to fertilize
 - Soil test
- Pick the right use
- N – P – K
- Measure to apply the right amount
- Apply in May or September
- Use targeted application areas
- Don't apply before a rainstorm
- Avoid application within 25' of the lake



Sunlight +
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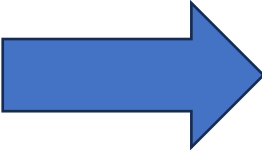
5. Spread the word

- What homeowners do affects water quality (and property values)
 - Stormwater runoff
 - Shoreland vegetation
 - Septic maintenance
 - Fertilizer use
- The risks of cyanobacteria blooms
 - How to ID & report: <https://arcg.is/1e8Tfy>

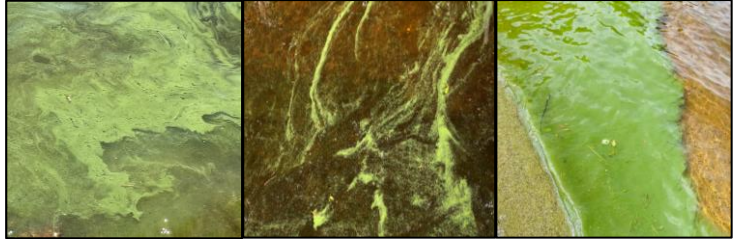


Remember Why:

- Less nutrient and stormwater pollution



Lower likelihood of cyanobacteria blooms



- It is easier (and cheaper!) to protect water quality than to restore it
- Protecting water quality protects property values and lake uses



Photo Credit: New Hampshire State Parks



Photo Credit: Loon Preservation Committee



Photo Credit: Lake Warren Association



Thank you!
Questions?

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Additional resources not included in webinar

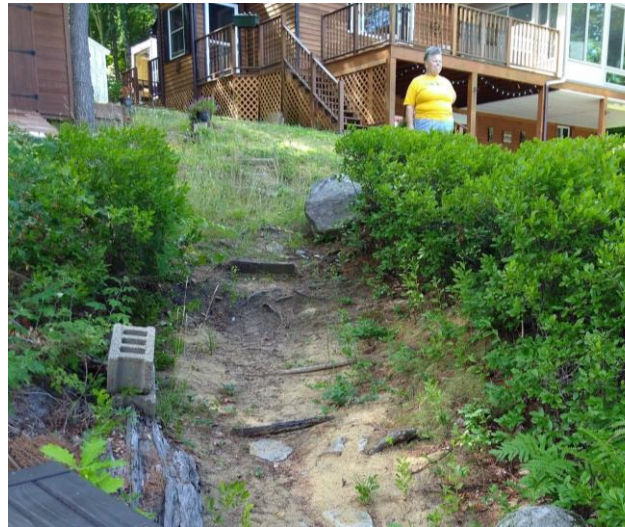
- <https://www4.des.state.nh.us/SoakNH/>
- <https://nhlakes.org/lakesmart/>
- The slides that follow

Report a bloom: <https://arcg.is/1e8Tfy>



1. Improve stormwater management: homeowner examples

- Goal: reduce erosion
- Identify trouble spots: where does the water go?
- Install:
 - Rain barrels
 - Rain gardens
 - Permeable pavers
- Replant bare areas
- Use mulch



1. Improve stormwater management: lake association examples

- Identify trouble spots
- Change road grading
- Fix culverts
- Install/maintain catchment basins
- Install permeable pavers at boat ramps



2. Protect shorelands: lake associations

- Outreach/education to homeowners
- Land Conservation
- Shoreland buffer zones
- Shoreland permit enforcement
- Legislative advocacy

