

# Introducing:

## A Voluntary Community Education Program by the NLPOA



With thanks to the Spokane Conservation District and to Snohomish County for many photos and ideas. Aerial photo from WA State Dept. of Ecology Newman Lake Wastewater Treatment Presentation 2.5.2020



# Saving Newman Lake: Each of us can help

Read this presentation and earn your  
yard sign



With thanks to the Spokane Conservation District and to  
Snohomish County for many photos and ideas

# We love our lake!



Photos from various lake residents and friends



## Outline:

 **Background Information of Water Quality**

**What Can I Do? – Every Voluntary Action Counts**

**What Else Is Being Done**

A series of white diagonal lines of varying lengths and thicknesses, located in the bottom right corner of the slide.

# Newman Lake's Water Quality Needs Your Help



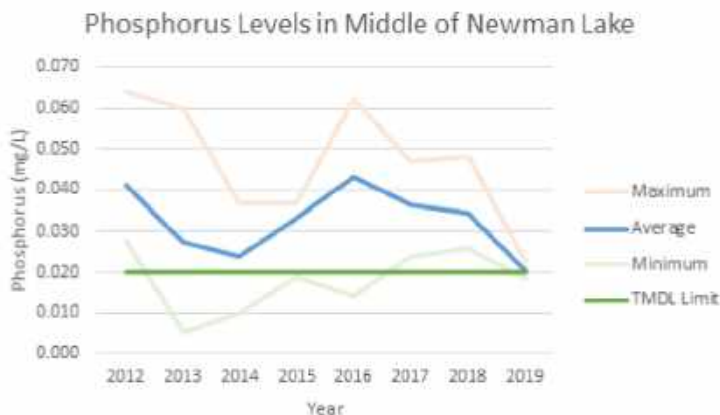
Photo taken 8/20/2019 Northwest portion of lake on peninsula. (Courtesy of Lee Tate)

# Excess phosphorus can lead to excess algae growth and poor water quality.

- Average phosphorus levels have consistently been above target levels for the past several years
- **Green** line is target level
- **Blue** line is the yearly average

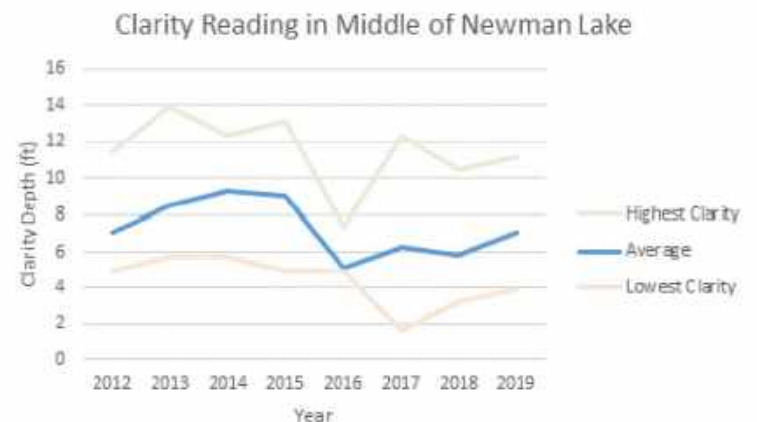
- In the past few years, lake water clarity seems to have diminished, indicating more algae

## Phosphorus Test Results



Source: WA State Department of Ecology

## Clarity Readings



Source: WA State Department of Ecology

# Why do I care? Some algae can be toxic, while others are harmless.

If algae is toxic, it can:

- Harm/kill humans and pets, if it gets to high enough levels
- Shorten our summertime use of the lake for swimming, boating, and fishing
- Make lake water unsafe to drink
- Stress fish and wildlife
- Lower property values (src: LakeWise, Snohomish County)

# CAUTION

## TOXIC ALGAE MAY BE PRESENT

Lake may be unsafe for people and pets

Until further notice:

- **Do not swim or water ski in areas of scum.**  
No nade ni riegue el esquí en áreas de la espuma
- **Do not drink lake water.**  
No beba el agua del lago
- **Keep pets and livestock away.**  
Animales domésticos y ganado de la subsistencia lejos
- **Clean fish well and discard guts.**  
Limpie los pescados bien y deseche la tripa
- **Avoid areas of scum when boating.**  
Evite las áreas de la espuma cuando canotaje

Call your doctor or veterinarian if you or your animals have sudden or unexplained sickness or signs of poisoning.

Call your local health department:	Report new algae blooms to Department of Ecology:
<input type="text"/>	<input type="text"/>

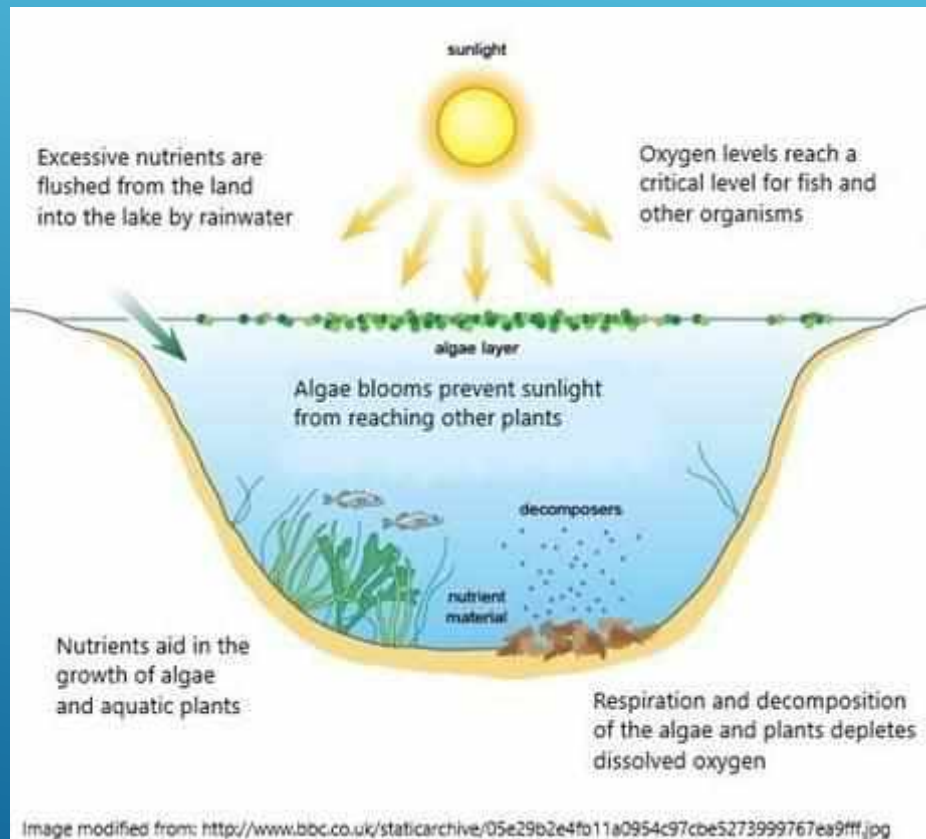
For more information: [www.doh.wa.gov/ehp/algae/default](http://www.doh.wa.gov/ehp/algae/default)  
[www.ecy.wa.gov/programs/wq/plants/algae/index.html](http://www.ecy.wa.gov/programs/wq/plants/algae/index.html)

 Health  
Since 1889

Courtesy of Snohomish County

# What causes excess algae growth?

- Excess algae growth happens when **too much phosphorus** and other nutrients build up in the water
  - ✓ Phosphorus acts as a fertilizer to algae, facilitating growth

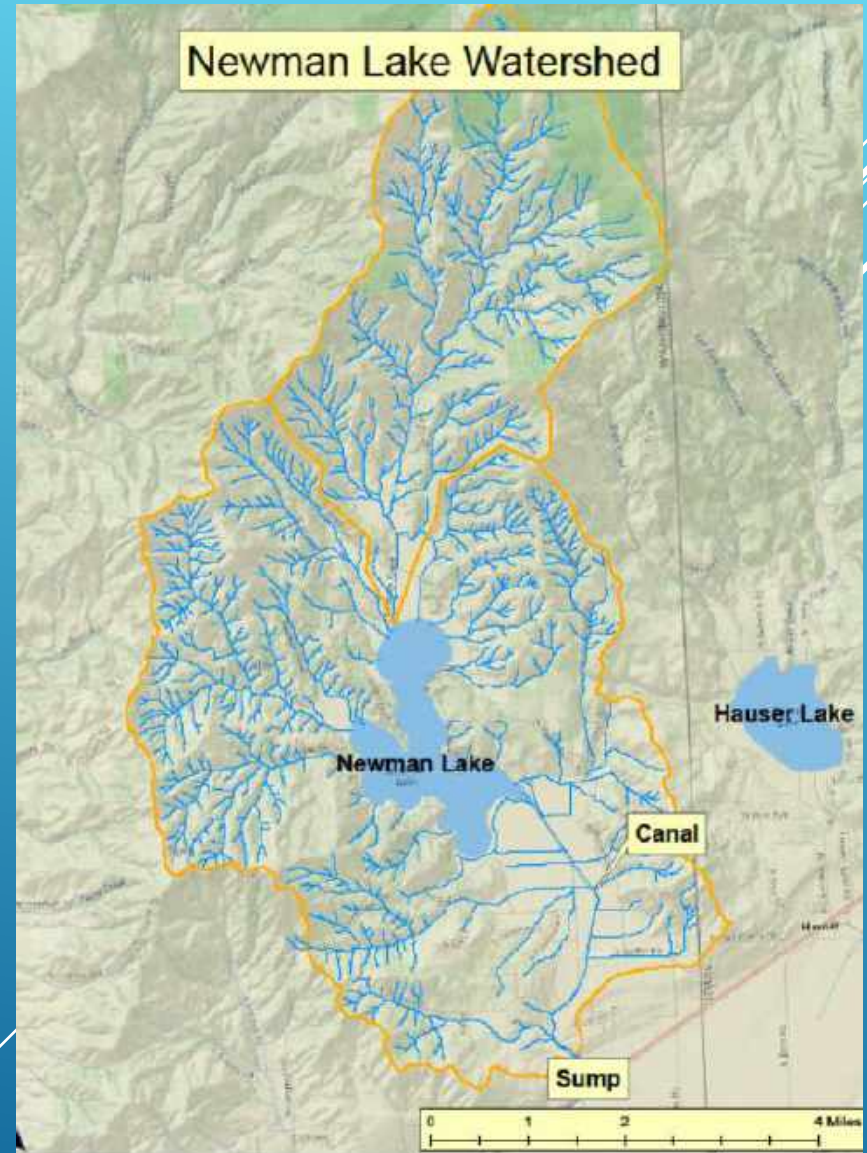


Please note: Nitrogen and Phosphorus work in combination to cause growth, but the availability of nitrogen is almost unlimited and can't be readily changed; therefore phosphorus control is the best means of algae reduction



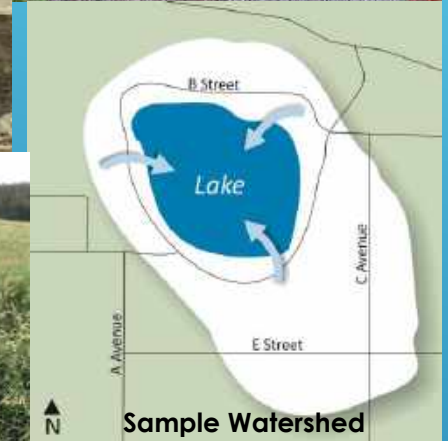
# Do my actions affect Newman Lake?

Anything we do  
within the  
watershed  
flows into the  
Lake



# Where does phosphorus come from?

- Human waste and activities, e.g. septic, fertilizer, soaps, etc.
- The organic matter\* that washes in from the soil and hillsides through our streams, inlets, and drainage ditches
- From the sediment in the bottom of the lake
- Shoreline erosion due to wave action



\* Such as pollen, pinecones, soil, grass clippings, leaves, and other decomposing matter.



## Outline:

**Background Information of Water Quality**

**➔ What Can I Do? – Every Voluntary Action Counts**

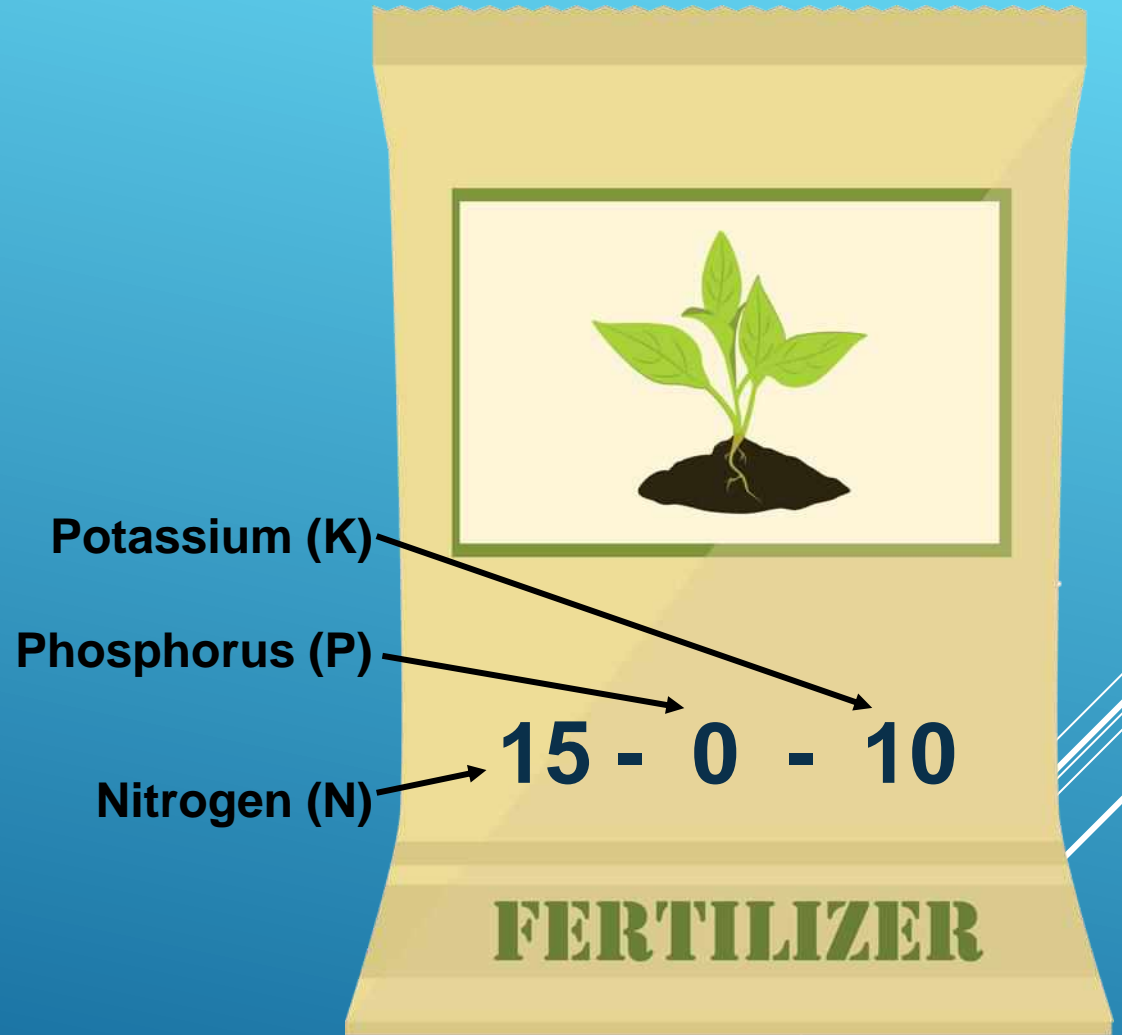
**What Else Is Being Done**



# What Can I Do?

## LAWN AND YARD CARE

- **Go Fertilizer Free!**
  - ✓ Avoid fertilizer or, if you must fertilize, use phosphorus-free products: (“0” in the middle of the label\*)



# What Can I Do?

## LAWN AND YARD cont'd...

- Fix eroding areas and cover bare soil with mulch or plants
- Cover any temporary dirt piles with a tarp to prevent soil from being washed into the lake
- Divert roof and driveway runoff to stable vegetated areas



# What Can I Do?

## PET WASTE

- Scoop pet waste, bag it, and place it in the trash



Photo: [www.alldogspoop.com](http://www.alldogspoop.com)

# What Can I Do?

## SOAPS/DETERGENTS/CLEANING PRODUCTS

- Use phosphate free soaps and detergents – many brands are available
- If possible don't wash your car or boat near the lake; If you do, use phosphorus (phosphate) free products



Image credit: Tide.com (used with permission)

# What Can I Do?

## SEPTIC SYSTEMS

- **Make sure your septic system is working and pumped regularly**
- **Conventional septic systems leach into the lake with the flow of ground water**
- **Support the Honeymoon Bay Septic test**
  - ✓ If the test is successful, please support adoption of the entity established to help Honeymoon Bay move forward.



Photo courtesy of Snohomish County Conservation District



# What Can I Do?

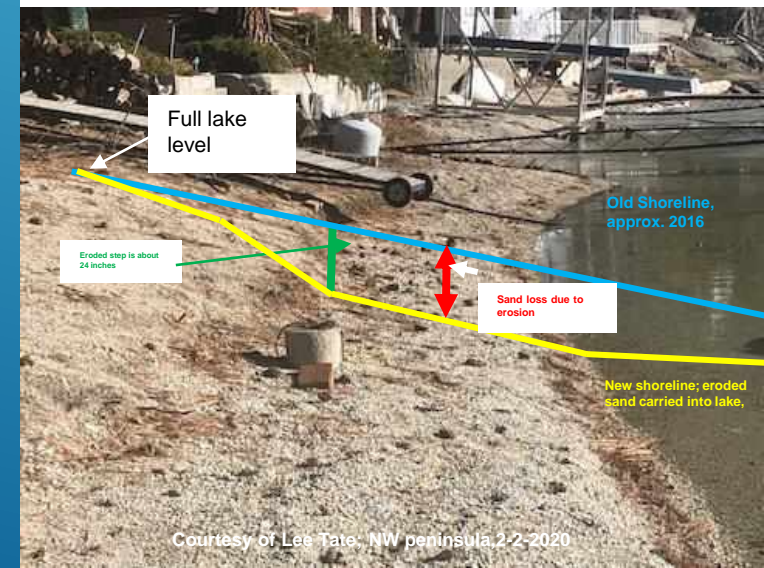
## Minimize Wakes

Large wakes pull phosphorus and other nutrients from the shore and bottom into the lake water, damaging the shoreline and fueling algae growth. Propeller thrust, especially when going quickly from slow speed to fast, stirs up the sediments in the bottom of the lake.

- **Keep your wake as small as possible**
  - ✓ Get up on a plane quickly only in deep water, don't plow through the water
  - ✓ Make your larger wakes in the middle well away from shore
  - ✓ Stay away from the shore and the lily pads with waves
- **Spokane County is evaluating wake effects**
  - ✓ To get involved email: [lindsay-chutas@sccd.org](mailto:lindsay-chutas@sccd.org)



### Shoreline Erosion on NW Peninsula of Newman Lake



Courtesy of Lee Tate: NW peninsula.2-2-2020

# What Can I Do?

## JOIN IN!!!

- Get more actions you can take by joining the LakeCare OK'd program in partnership with the Spokane Conservation District
  - ✓ For info go to:  
[www.newmanlakewa.com](http://www.newmanlakewa.com)
- Control your own input into the lake as much as possible
  - ✓ Phosphorus is in, or, released by many of our activities
- Spread the word
  - ✓ Inform and educate your friends and neighbors on the lake
  - ✓ Text, email, like us on Facebook, etc.
- Help the Spokane County Conservation District study wave effects. (Email: [lindsay-chutas@sccd.org](mailto:lindsay-chutas@sccd.org))





## Outline:

**Background Information of Water Quality**

**What Can I Do? – Every Voluntary Action Counts**



**What Else Is Being Done**



# NLFCZD\*: LAKE MAINTENANCE

- **NLFCZD AB\*\* is working with the county to make sure the equipment in the lake is up and running properly and turned on/off at the proper time**
  - ✓ **Equipment: in lake oxygen and Alum injections systems**
  - ✓ **Recent capital grant from State to repair in lake equipment and assess its effectiveness**

\*Newman Lake Flood Control Zone District

\*\*Advisory Board


# STREAMS AND INLETS:

- Options to improve soil run-off into the lake from our streams and inlets are being studied.



# Honeymoon Bay: TESTING SPECIAL SEPTIC EQUIPMENT

Honeymoon Bay is working with several entities to undertake a test of specialty septic equipment that could remove significant levels of phosphorus from our lake.

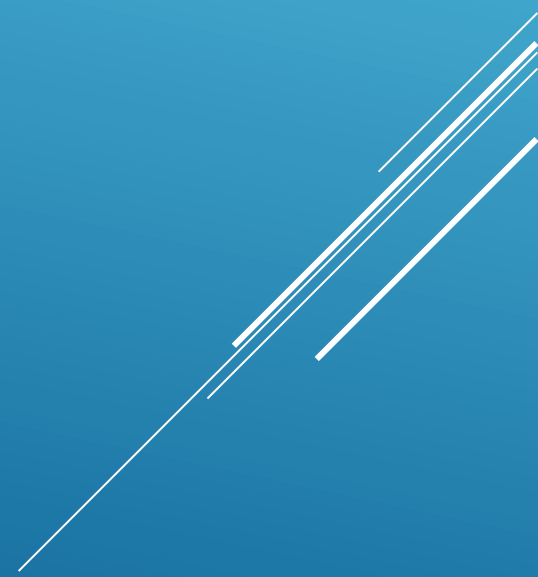


# Your Lake Needs You Please Get Involved





# Appendix





# Water in the lake is replaced only about every 1.2 years

