

## The North Shore Land Alliance, Inc.

501c3 land trust with a mission to conserve and steward Long Island's natural and historic lands, waters and environmental resources.

The primary reason we protect land is to protect the water.

To date, we have protected 1,400 acres of environmentally significant land.

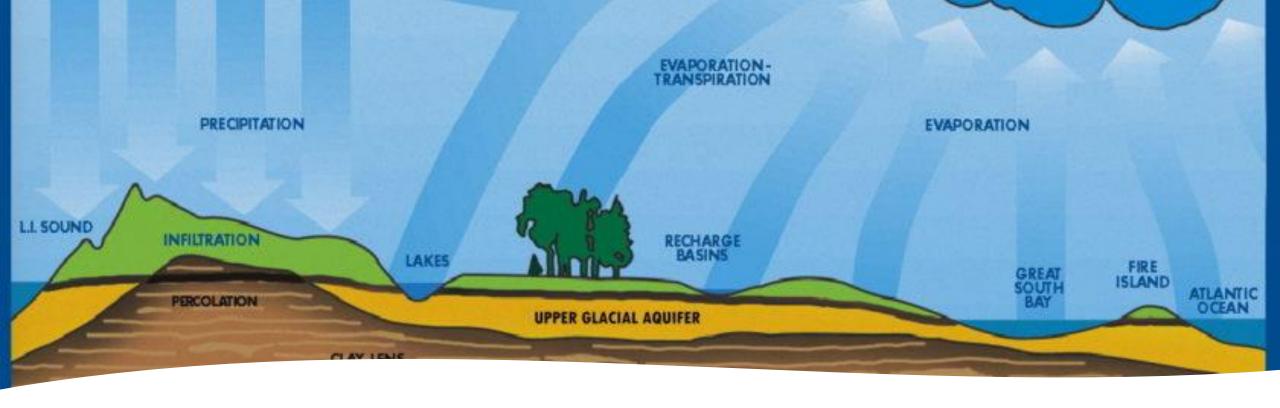




#### Land and Water

Basics Concepts-

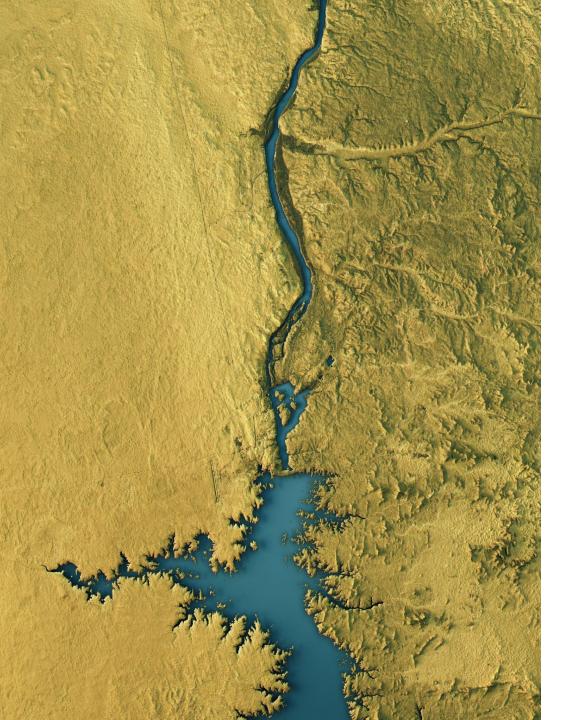
- Sole Source Aquifer
- Special Groundwater Protection Areas
- Watersheds



#### Sole Source Aquifer

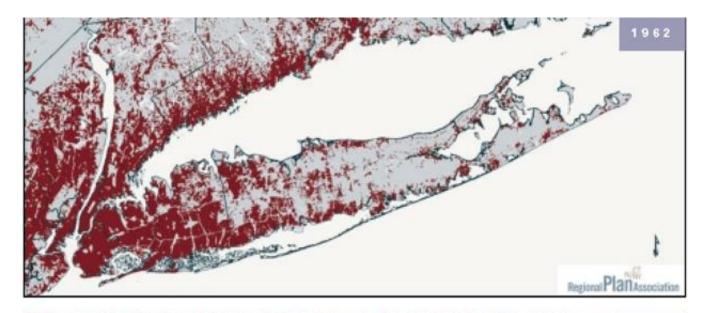
An aquifer is an underground layer of water-bearing material, consisting of permeable or fractured rock, or sand, silt, or gravel.

Water in the Aquifer originates as precipitation (such as rain and snow), which slowly percolates down through the soil. 100% of Long Island's drinking water is from the groundwater - making it a Sole Source Aquifer.



What happens on the land, happens in the water...

What we do on or to the land affects both the quantity (volume) and quality (pollutant levels) of the water





Sources: Maps prepared by the Regional Plan Association for the Rauch Foundation, 2003. U.S. Geological Survey, Cornell University

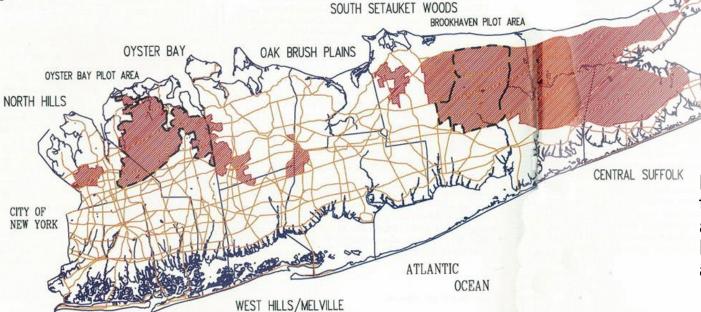
Post WWII rampant development transformed Long Island

#### North Shore Land Alliance

#### SPECIAL GROUND-WATER PROTECTION

The single unifying element in Long Island is groundwater. Nassau and Suffolk Counties are an island totally isolated from any source of water importation, We rely solely on the aquifers for drinking water.

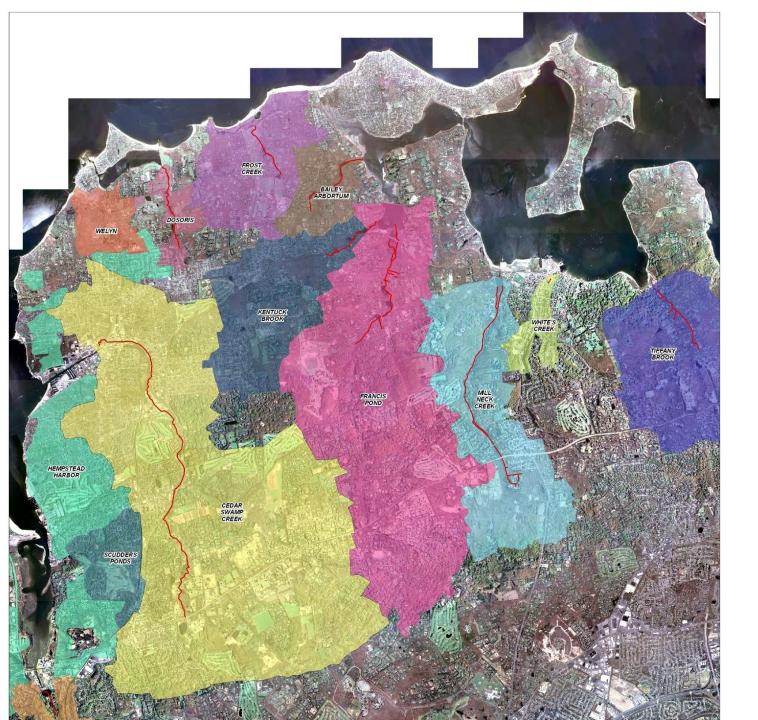
Protecting the land that protects our water is critical to the quality and quantity of this precious resource. LONG ISLAND SOUND



In 1968, nine areas were set aside on LI and codified through NY Environmental Conservation Law to be administered by the Regional Plan Association. Limited development was recommended in these areas but never enforced.

### Special Groundwater Protection Areas are critical for preserving potable water. ation High: 388 Nassau Queens Low: -4 USGS

### Elevation and Movement



#### Watershed

Every community is part of a watershed, broadly defined as an area of land that drains to a common body of water, such as a stream, river, lake, or bay.

Land use and activities throughout a watershed influence the health of downstream waters.

### Suffolk Nassau BEACH / BARREN LAND GRASSLAND / SCRUB DEVELOPED OPEN WATER MORE DEVELOPED MOST DEVELOPED WETLANDS LARGE LOT RESIDENTIAL / GOLF COURSE/ FARM LAND

#### Land Types

Today, nearly 60% of Nassau County's land surface is impervious resulting in severe stormwater runoff.



# Green Infrastructure and Ecosystem Services

Trees, forests and grasslands capture rainwater and reduce the risk of natural disasters such as floods and landslides.

Their intricate root systems filter harmful pollutants and slow down the absorption of water into the soil preventing erosion and reducing the risk of flooding.

These lands types also **store tremendous amounts of carbon** critical to addressing climate change.

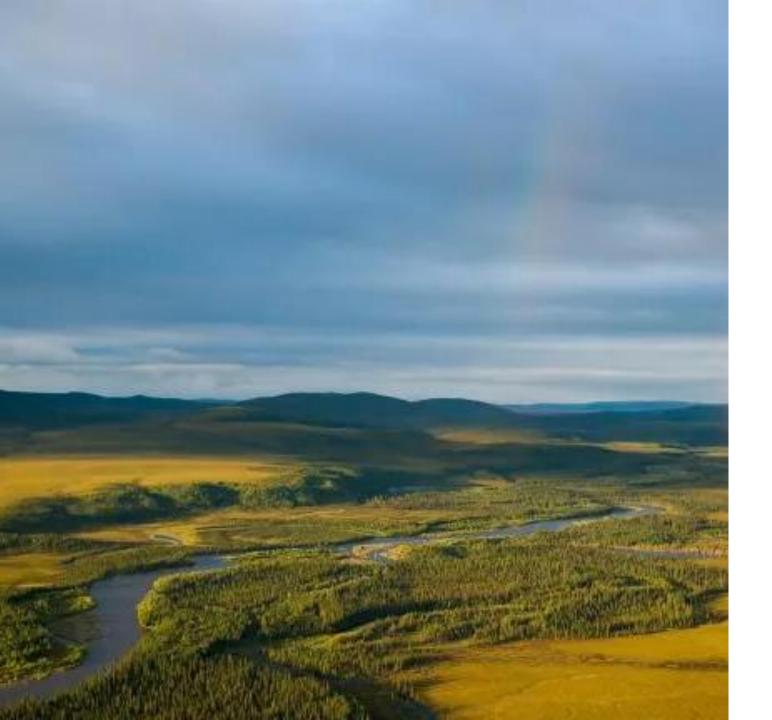


#### Wetlands

Wetlands are the vital link between water and land. "Wetlands" is the collective term for flat vegetated areas, in depressions in the landscape, and between dry land and water along the edges of streams, rivers, lakes, and coastlines.

Wetlands help regulate water levels within watersheds; improve water quality; reduce flood and storm damages; provide important fish and wildlife habitat; and support hunting, fishing, and other recreational activities

90% of US wetlands have been lost since 1900.



The Conserving and Restoring America the Beautiful Initiative

#### 30 x 30 Conservation Plan

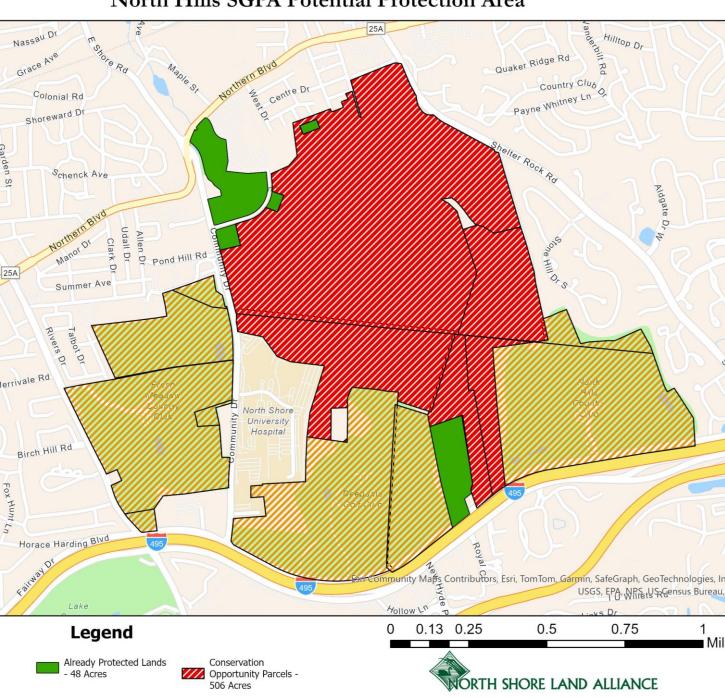
January 27, 2021, President Biden joined 50 countries in an international effort to protect 30% of U.S. lands and oceans by 2030.

 Today 12% of US lands are protected and 25% of waters.

Governor Hochul signed similar legislation in 2022.

 NYS has 19% of lands and waters protected

#### North Hills SGPA Potential Protection Area



## Is there any land left to save?

In Nassau County 15% of our land is protected

More than 10,000 acres have been identified as conservation opportunities – enough to reach the 30 x 30 goal if we act now!

# Nassau BEACH / BARREN LAND GRASSLAND / SCRUB WATER PROTECTION AREAS MORE DEVELOPED MOST DEVELOPED LARGE LOT RESIDENTIAL / GOLF COURSE/

#### **SOLUTIONS**

WHAT CAN WE DO?

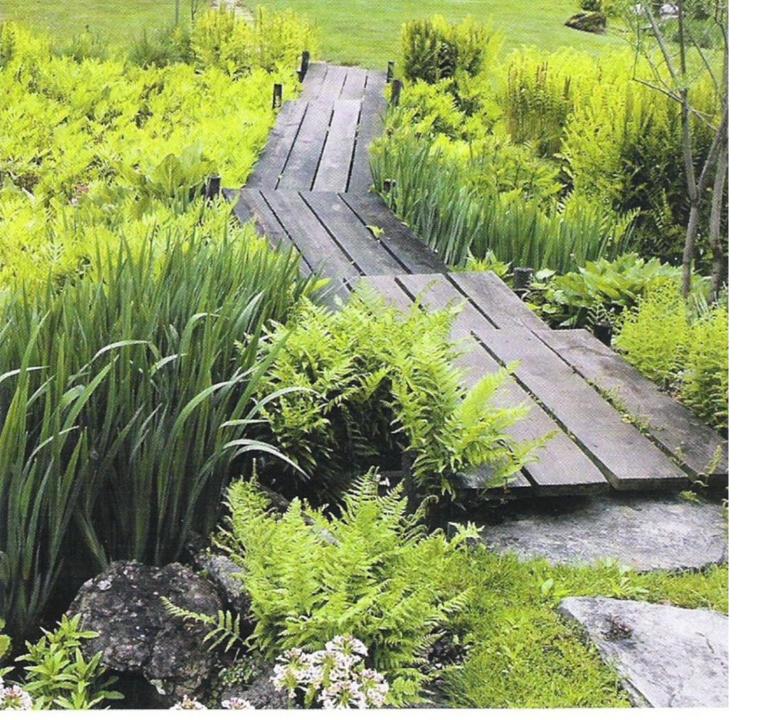
# 1) Prioritize and target conservation in areas with the greatest impact on water quality

- Protect Land in the SGPA critical to ensuring adequate water quantity.
- Protect wetlands to absorb harmful pollutants and protect us from the impacts of increasingly severe storms.



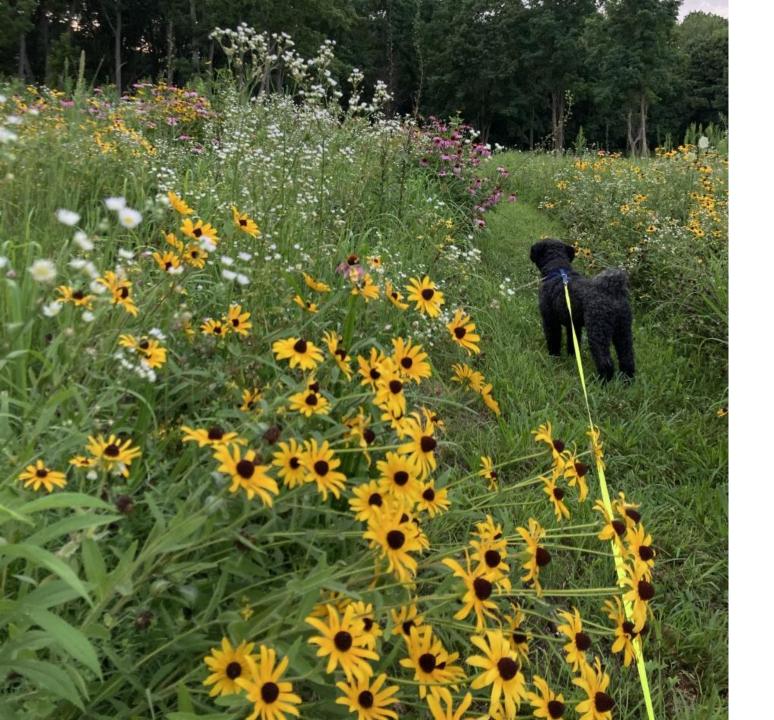
# How do we protect more land?

- Support government land acquisition programs on federal, state and local levels.
- Elect candidates that care about protecting the environment.
- Conserve your own land and/or encourage your friends and neighbors to do so.
- Support organizations involved in efforts like these.
- Volunteer your time.



# 2) Use best management practices on the land to reduce the levels of water pollutants, such as nitrogen and phosphorous

- Plant more trees, better manage forests
- Replace Invasive species with native plants that require less water and absorb more carbon
- Build raingardens to absorb and recycle water
- Compost to build better soil
- Do not use pesticides and insecticides



#### America's Homegrown National Park

In the past, we have asked one thing of our gardens: that they be pretty. Now they have to support life, sequester carbon, feed pollinators and manage water.

*Author Doug Tallamy* 

https://homegrownnational park.org/

### 3) Build Partnerships and Educate our Community

- Align with Like-Minded Organizations
- Build Awareness of the problems and the solutions
- Empower People to Act



## Economic Benefits of Open Space

The cost of water in areas like the the Pine Barrens, where the source water is protected, is up to 10x lower than in unprotected areas because the water doesn't require as much costly treatment.

Parks and open space reduce stormwater management costs by capturing precipitation and/or slowing its runoff. Protected areas lower stormwater management costs by \$23.9M annually



It will take all of us working together to protect the land that protects our water

"Never doubt that a small group of thoughtful, committed citizens can change the world;

indeed, it's the only thing that ever has"

Margaret Mead, Anthropologist