

# WATER ON SHELTER ISLAND: A COMPREHENSIVE VIEW

HOSTED BY: THE WATER ADVISORY COMMITTEE & COMPREHENSIVE PLAN TASK FORCE

SPEAKERS: MEG LARSEN AND BJ IANFOLLA



# Overview of Chapters

- 1. Introduction and Vision**
- 2. Growth and Change (Demographics and Socioeconomics)**
- 3. Built Environment, Land Use, and Zoning**
- 4. Housing**
- 5. Economy**
- 6. Transportation**
- 7. Natural Environment and Water Quality**
- 8. Parks, Open Space, and Waterways**
- 9. Quality of Life (Historic Resources, Cultural Resources, Government)**
- 10. Utilities, Transportation, and Resilience**
- 11. Future Land Use Plan and Implementation**

Town of Shelter Island

# Ground and Surface Water Management Plan

*One Island - One Water*



Prepared By:

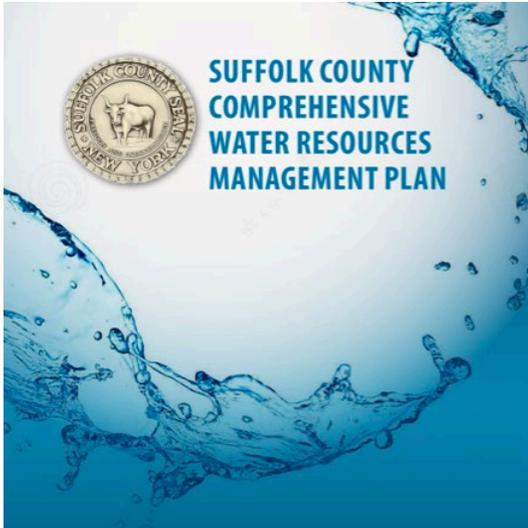
Town of Shelter Island Water Advisory Committee

February 27, 2020

1



## SUFFOLK COUNTY COMPREHENSIVE WATER RESOURCES MANAGEMENT PLAN



**2015**  
**Steven Bellone**  
*County Executive*

### HYDROGEOLOGIC DATA REVIEW AND EVALUATION FOR SHELTER ISLAND, NEW YORK

Prepared For

Shelter Island Irrigation Committee

June 2014

LEGGETTE, BRASHEARS & GRAHAM, INC.  
Professional Groundwater and Environmental Engineering Services  
4 Westchester Park Drive, Suite 175  
White Plains, NY 10604  
(914) 694-5711  
www.lbgweb.com

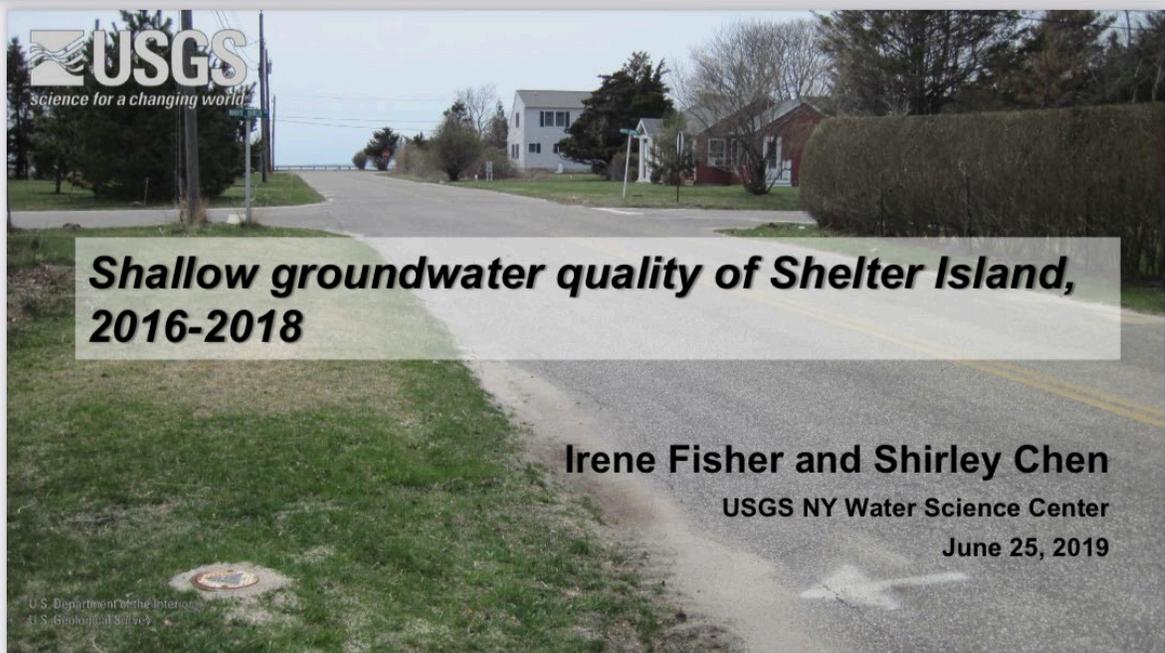
## SHELTER ISLAND'S SEAGRASS MANAGEMENT PLAN

*"Protecting Our Seagrass Beds for Generations to Come"*

November 2017



Developed by Shelter Island's Waterways Management Advisory Committee  
John Needham---Chairman, George Zinger, Michael Anglin,  
James Eklund, William Geraghty, Al Loreto, Marc Wein  
and  
Shelter Island's Conservation Advisory Council  
Ed Bausman---Chairman, John Reilly, Peder Larsen, Howard Johansen,  
Paulette VanVranken, Jr, Mark Cappellino  
and  
Shelter Island's Town Board  
Supervisor Jim Dougherty and Town Board Members  
Chris Lewis, Paul Shepherd, Amber Brach-Williams & Jim Colligan

## Shallow groundwater quality of Shelter Island, 2016-2018

**Irene Fisher and Shirley Chen**  
USGS NY Water Science Center  
June 25, 2019

U.S. Department of the Interior  
U.S. Geological Survey



### TOWN OF SHELTER ISLAND WATERSHED MANAGEMENT PLAN



PREPARED FOR:  
TOWN OF SHELTER ISLAND  
38 North Ferry Road  
P.O. Box 970  
Shelter Island, New York 11954  
New York State Department of State  
Office of Planning & Development  
One Commerce Plaza  
99 Washington Avenue, Suite 1010  
Albany, New York 12231-0001

PREPARED BY:  
NELSON, POPE & VOORHIS  
572 Walt Whitman Road  
Melville, New York 11747  
(631) 427-5665

June 2014




### Reclaim Our Water SUFFOLK COUNTY SUBWATERSHEDS WASTEWATER PLAN

*"We are in a county that will no longer allow our water quality crisis to go unaddressed, but will come together to Reclaim Our Water"*

Suffolk County Executive Steve Bellone  
2014 State of the County

Suffolk County  
Department of Health Services  
July 2020

This document was prepared with funding provided by the New York State Department of Environmental Conservation as part of the Long Island Nitrogen Action Plan and by New York State Department of State under the Environmental Protection Fund.



## Vision: Principles

**Exercise responsible stewardship for the natural and cultural resources which give the Island its special character and significance.**



**Increase the resiliency of the Island to climate change and sea level rise by implementing appropriate adaptation measures.**



## Vision: Principles

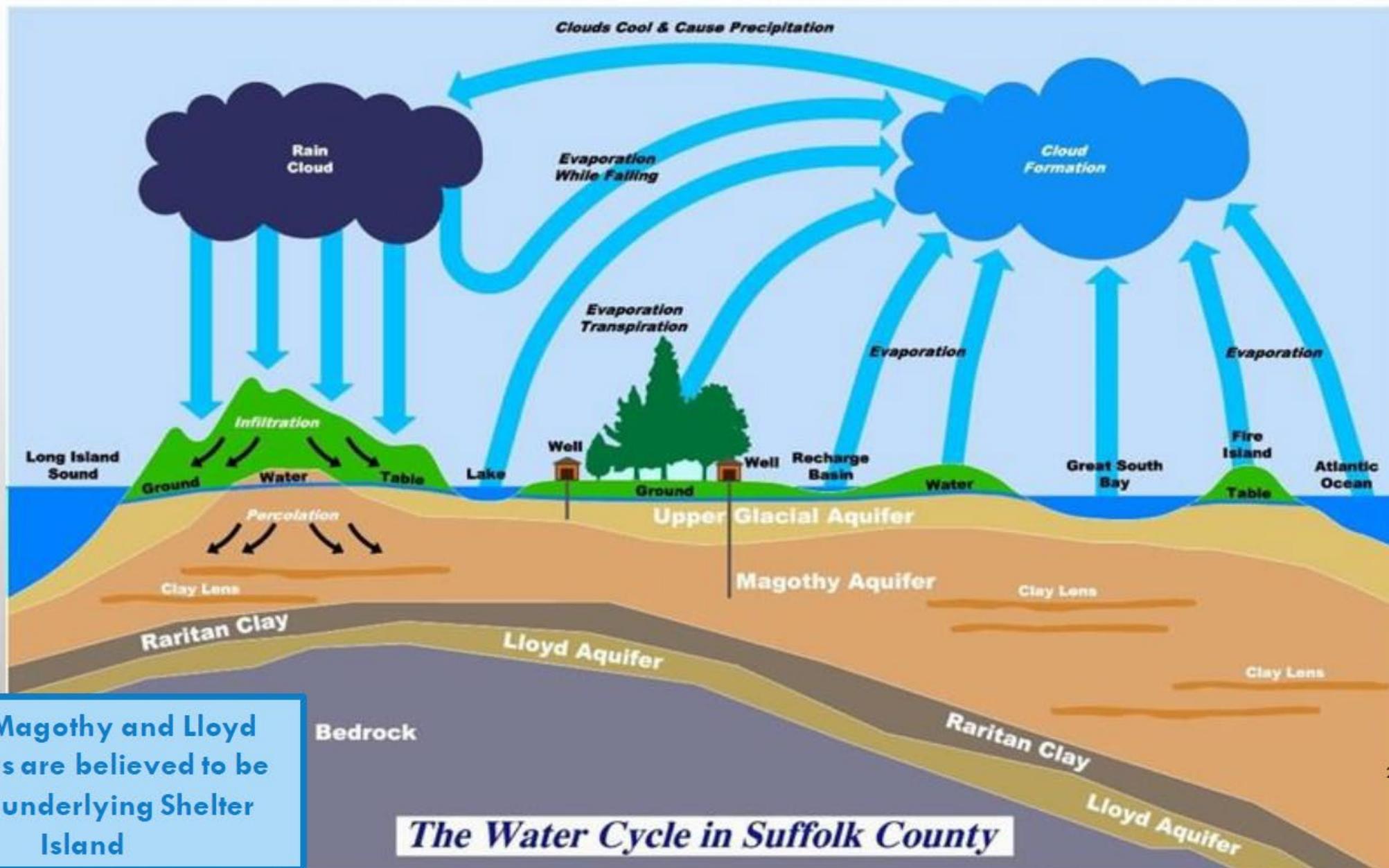
**Maintain a vibrant year-round Island community that meets residents' economic and social needs.**



**Motivate and enable upcoming generations to be part of Shelter Island's future.**



# AQUIFER OVERVIEW

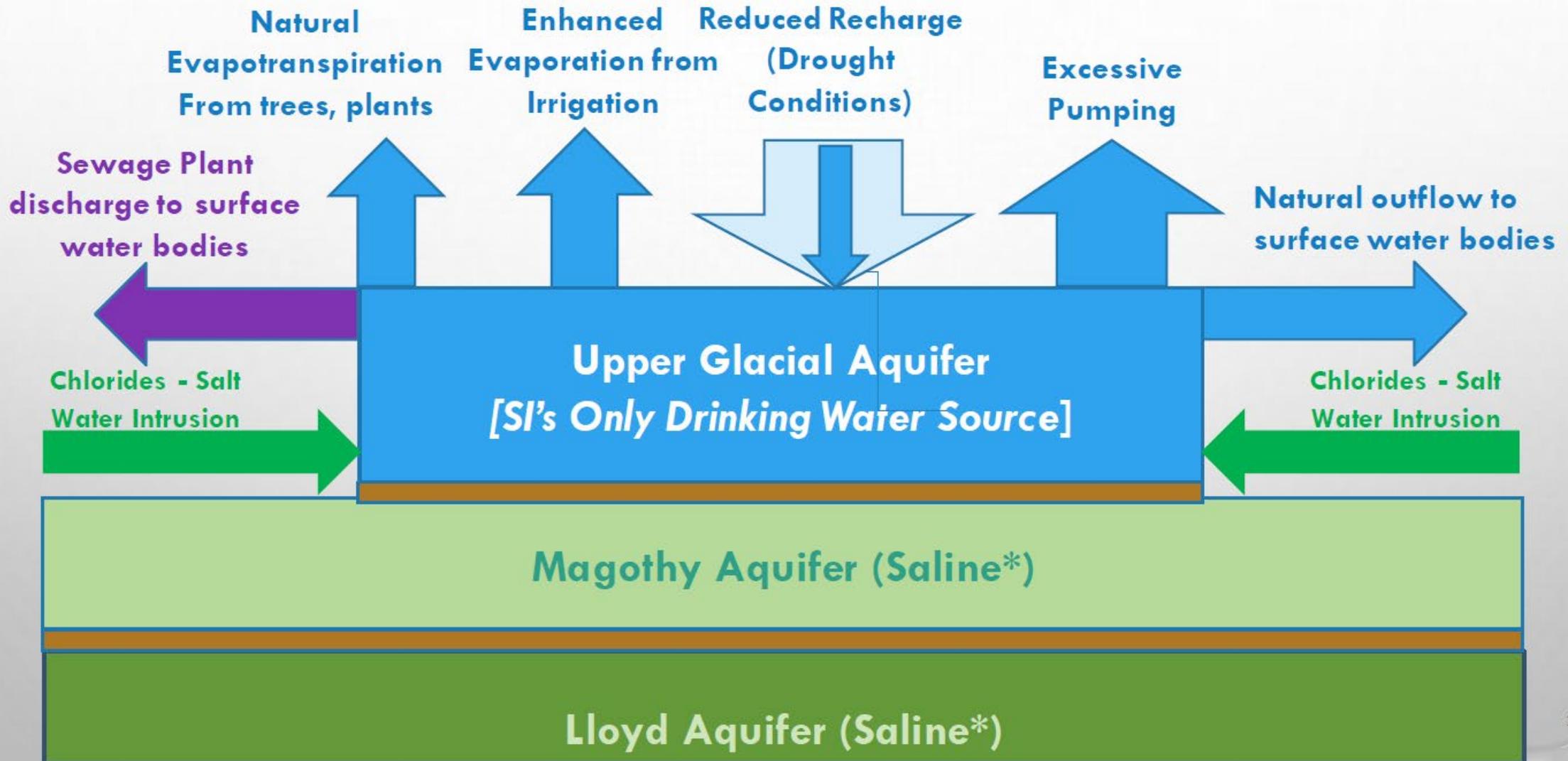


Note: Magothy and Lloyd Aquifers are believed to be saline underlying Shelter Island

*The Water Cycle in Suffolk County*

# AQUIFER OVERVIEW

## THREATS TO AQUIFER QUANTITY:

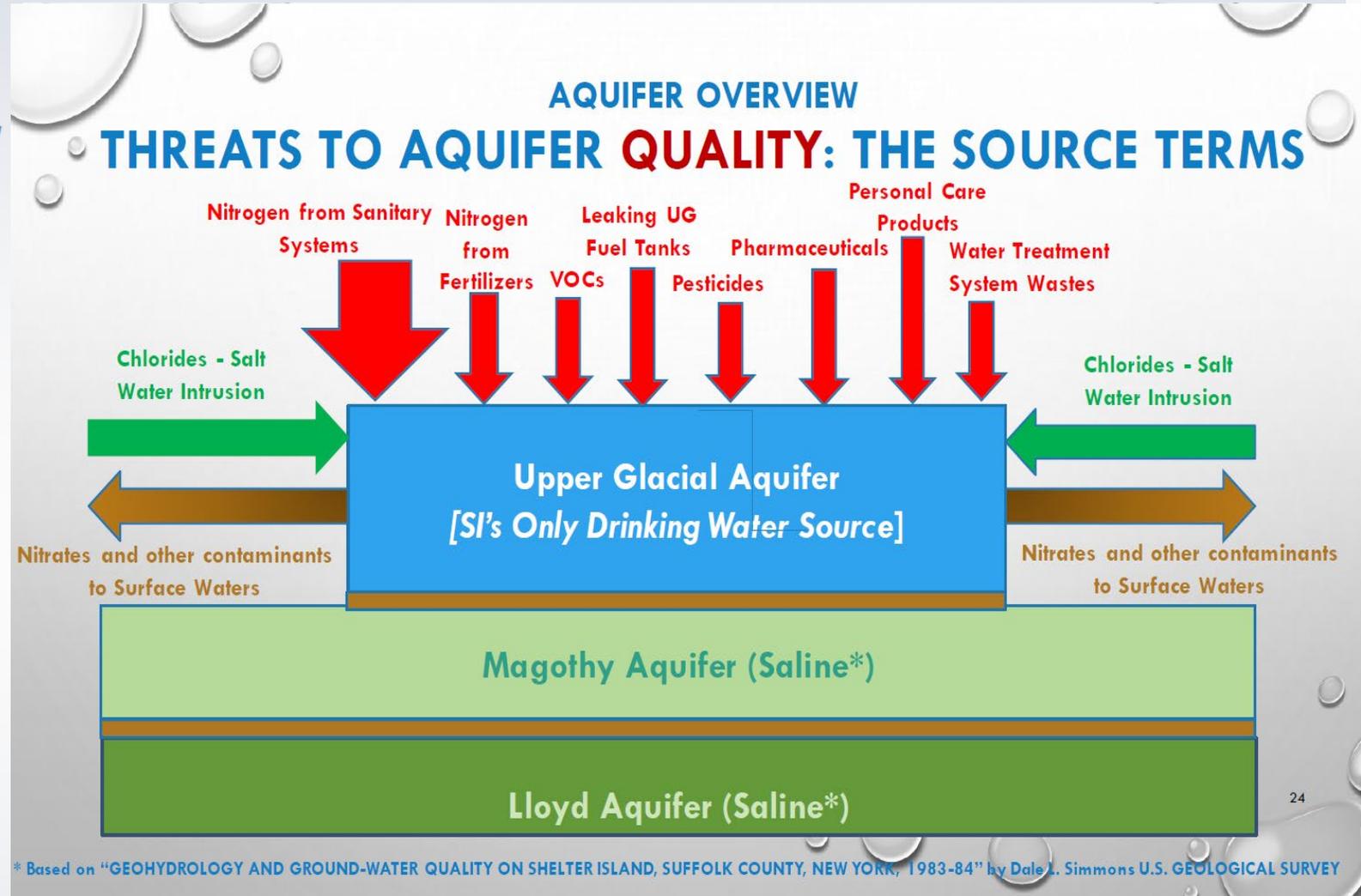


# Natural Resources and Water Quality: Key Findings

Water quality is highly vulnerable to contamination, and significant actions are needed to preserve it.

The Island has many ecological resources of statewide significance.

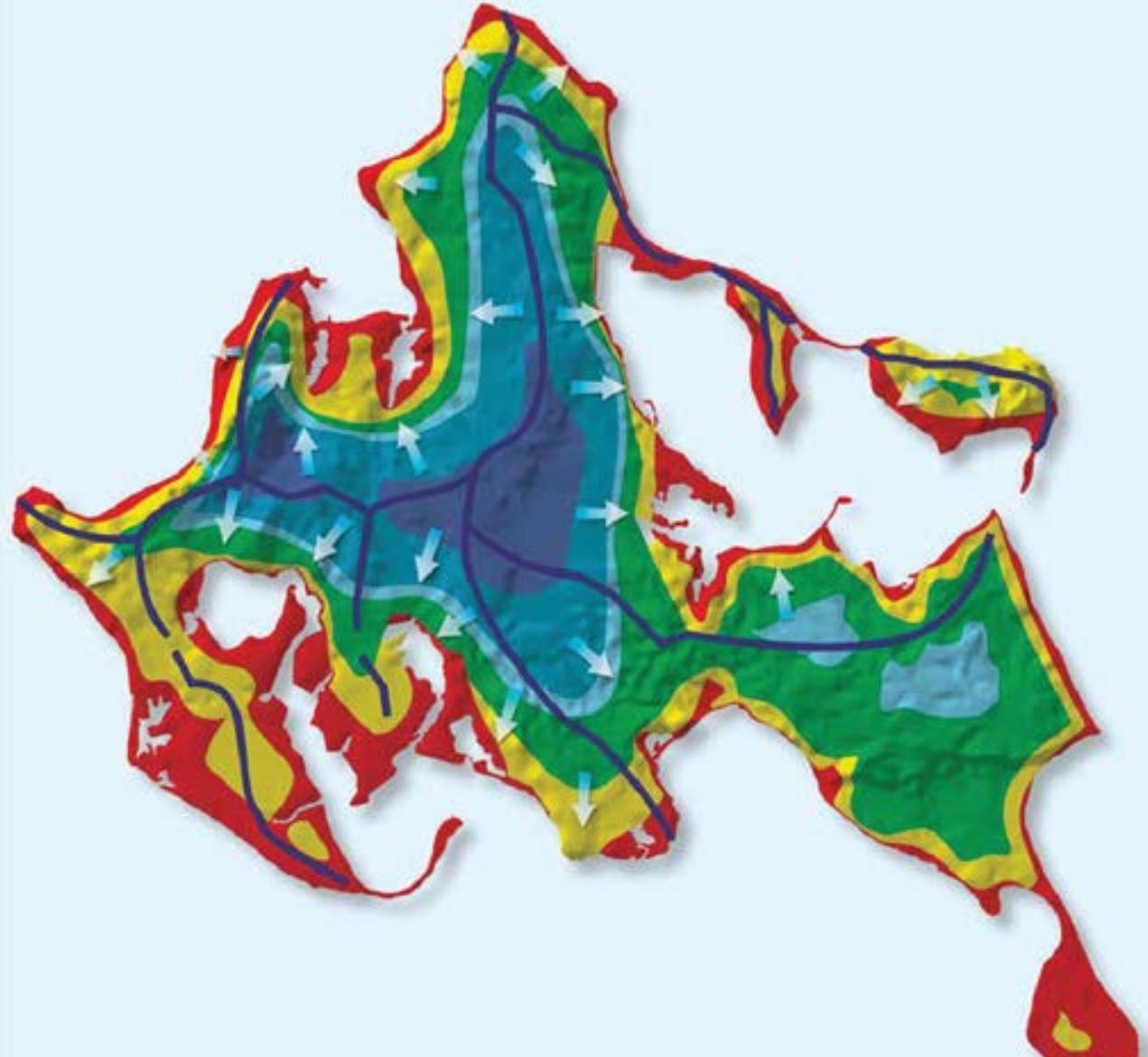
Island is susceptible to invasive species that can have major ecological, public health, and economic impacts.



# Natural Resources and Water Quality: Key Findings

Climate change will see rising temperatures and more frequent droughts, and an increase in the number and severity of storms and flooding.

Most areas of Shelter Island are not vulnerable to flooding, but sea level rise is accelerating and will bring major impacts.



# THE FOLLOWING SLIDES ARE A SUMMARY OF THE GROUND AND SURFACE WATER MANAGEMENT PLAN

THE GROUND AND SURFACE WATER MANAGEMENT PLAN WILL BE INCLUDED AS AN APPENDIX TO THE COMPREHENSIVE PLAN AND HAS BEEN A GUIDING DOCUMENT.

YOU MAY NOTICE THAT SOME OF THE KEY OUTCOMES AND RECOMMENDATIONS HAVE ALREADY BEEN WORKED ON AND THAT IS ADDRESSED IN THE COMPREHENSIVE PLAN

Town of Shelter Island

## Ground and Surface Water Management Plan *One Island - One Water*



Prepared By:

Town of Shelter Island Water Advisory Committee

February 27, 2020

# GUIDING PRINCIPLES

- **SHELTER ISLAND SHOULD BE A LEADER IN WATER QUANTITY AND QUALITY MANAGEMENT ON LONG ISLAND.**
- **SHELTER ISLAND SHOULD CONTROL AND OPTIMIZE THE USE OF ITS OWN GROUNDWATER RESOURCES.**
  - SINCE THE VOLUME OF AVAILABLE GROUNDWATER SUBSTANTIALLY EXCEEDS ANNUAL DEMAND, IMPORTING WATER FROM OFF-ISLAND IS NOT NECESSARY AT THE CURRENT TIME AND SHOULD BE CONSIDERED A “LAST RESORT” OPTION.
- **PROTECTION OF PUBLIC HEALTH, SAFETY, AND THE ENVIRONMENT ARE KEY GOVERNMENTAL RESPONSIBILITIES. APPLICABLE ACTIONS, INVESTMENTS AND INITIATIVES INCLUDE:**
  - FACILITATING ACCESS TO SAFE DRINKING WATER
  - PROTECTING THE QUALITY OF THE AQUIFER
  - PROTECTING SURFACE WATER BODIES WITHIN AND ADJACENT TO THE ISLAND’S SHORELINE

***NOTE: ABOVE PRINCIPLES ASSUME COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS AS A BASELINE.***

# KEY OUTCOMES

## A VISION OF WHERE WE WANT TO BE 15-20 YEARS FROM NOW

- **KEY OUTCOME 1:** ALL SHELTER ISLAND RESIDENTS HAVE READY ACCESS TO DRINKING WATER THAT MEETS ALL APPLICABLE LOCAL, STATE, AND FEDERAL STANDARDS.
- **KEY OUTCOME 2:** ALL WASTEWATER EFFLUENT ON SHELTER ISLAND DISCHARGED INTO THE AQUIFER OR SURFACE WATERS WILL BE AT A MAXIMUM OF 19MG/L.
- **KEY OUTCOME 3:** AS SHELTER ISLAND'S SOLE SOURCE AQUIFER, THE UPPER GLACIAL AQUIFER'S QUANTITY AND QUALITY WILL CONTINUE TO SUPPORT THE DRINKING WATER NEEDS OF RESIDENTS WITHOUT THE NEED FOR "OFF-ISLAND" WATER.
- **KEY OUTCOME 4:** SURFACE WATERS WITHIN AND SURROUNDING SHELTER ISLAND WILL NOT BE NEGATIVELY IMPACTED BY HUMAN ACTIVITY ON SHELTER ISLAND.

# **KEY OUTCOME 1: ALL SHELTER ISLAND RESIDENTS HAVE READY ACCESS TO DRINKING WATER THAT MEETS ALL APPLICABLE LOCAL, STATE, AND FEDERAL STANDARDS.**

## **0-5 YEARS**

- BEGIN DISCUSSION WITH PUBLIC WATER SUPPLIERS TO UNDERSTAND THE ENGINEERING AND FINANCIAL ASPECTS OF DEVELOPING LIMITED SCOPE PUBLIC WATER SUPPLY AND DISTRIBUTION SYSTEM(S) TO PROVIDE DRINKING WATER TO AREAS CURRENTLY UNABLE TO RELIABLY SOURCE POTABLE WATER FROM RESIDENTIAL WELLS (“CURRENTLY CHALLENGED AREAS”).
- DEVELOP A FINANCIAL MODEL AND IDENTIFY FUNDING SOURCES.
- CONSIDER ESTABLISHING WATER QUALITY DISTRICTS OR AN ISLAND-WIDE WATER MANAGEMENT DISTRICT.
- INSTALL PUBLIC WATER SUPPLY AND DISTRIBUTION SYSTEM(S) TO SUPPLY CURRENTLY CHALLENGED AREAS AND ESTABLISH ASSOCIATED MANAGEMENT AND OPERATING CAPABILITY.
- REVIEW TOWN BOARD OVERSIGHT OF THE WEST NECK WATER DISTRICT AND REVISE AS APPROPRIATE.

## **6-10 YEARS**

- CHARACTERIZE (THROUGH SAMPLING AND ANALYSIS) AND MODEL THE AQUIFER TO IDENTIFY AND PRIORITIZE THE NEED FOR REMEDIATION OF CONTAMINANTS AND DEVELOPMENT OF ADDITIONAL WATER DISTRICTS ISLAND-WIDE.
- CREATE A TIME-PHASED MASTER PLAN FOR PUBLIC WATER UTILITY SERVICE TO THE REMAINDER OF SHELTER ISLAND.

## **11+ YEARS**

- COMPLETE THE BUILD-OUT OF AN ISLAND-WIDE WATER SUPPLY UTILITY SYSTEM AS REQUIRED.
- CONSIDER INTEGRATING THE HEIGHTS, BRIDGE STREET WATER COMPANY, WEST NECK WATER, AND DERING HARBOR WATER SYSTEMS, AS APPROPRIATE.

## **KEY OUTCOME 2:** ALL WASTEWATER EFFLUENT ON SHELTER ISLAND DISCHARGED INTO THE AQUIFER WILL BE AT A MAXIMUM OF 19MG/L

### **0-5 YEARS**

- CONTINUE TO MONITOR DEVELOPMENTS AFFECTING THE I/A GRANT PROGRAMS (E.G. STATE AND COUNTY FUNDING AND TAX IMPLICATIONS) AND ADJUST PLANNING AS APPROPRIATE.
- CONSIDER ESTABLISHING AN ISLAND-WIDE WASTEWATER MANAGEMENT DISTRICT, OR LOCAL COMMUNITY DISTRICTS. (THIS WOULD FACILITATE SINGLE TREATMENT SYSTEMS SERVING MULTIPLE EFFLUENTS).
- CONTINUE THE PLAN TO DEVELOP A CENTRALIZED WASTEWATER TREATMENT PLANT TO SERVE EFFLUENTS FROM MUNICIPAL BUILDINGS IN TOWN CENTER. DESIGN THE TREATMENT PROCESS (AND PURCHASE REQUIRED LAND) BASED ON A MODULAR APPROACH THAT WILL ENABLE EXPANSION TO SERVICE RESIDENCES AND OTHER STRUCTURES IN THE CENTER IN THE FUTURE.
- CONTINUE TO CLOSELY MONITOR THE SUFFOLK COUNTY SUBWATERSHEDS WASTEWATER PLAN IMPLEMENTATION, PARTICULARLY THE INTENT TO IDENTIFY A “RELIABLE RECURRING FUNDING SOURCE” FOR THE IMPLEMENTATION OF THE PLAN.

## KEY OUTCOME 2: CONTINUED

### 0-5 YEARS (CONTINUED)

- ADOPT A SET OF CRITERIA TO PRIORITIZE ALLOCATION OF TOWN GRANT FUNDS FOR INNOVATIVE/ADVANCED WASTEWATER TREATMENT SYSTEMS (I/A SYSTEMS). *[NOTE: THE WATER QUALITY IMPROVEMENT ADVISORY BOARD IS CURRENTLY DEVELOPING SUCH A SET OF CRITERIA]*
- CONTINUE THE TOWN GRANT PROGRAM FOR I/A SYSTEM INSTALLATION USING THE PRIORITIZED CRITERIA.
- DEVELOP A LOW/NO INTEREST LOAN PROGRAM FOR I/A SYSTEM INSTALLATION.
- DESIGNATE “WATER PROTECTION ZONES” (WPZS) WHERE ESTIMATED EFFLUENT TRAVEL TO SURFACE WATER (FRESH OR SALT) IS LESS THAN 2 YEARS (BASED ON 1 FT/DAY MOVEMENT) AND AREAS THAT ARE CURRENTLY EXPERIENCING GROUNDWATER AT OR ABOVE 7MG/L OF NITRATES.

# KEY OUTCOME 3: AS SHELTER ISLAND'S SOLE SOURCE AQUIFER, THE UPPER GLACIAL AQUIFER'S QUANTITY AND QUALITY WILL CONTINUE TO SUPPORT THE DRINKING WATER NEEDS OF RESIDENTS WITHOUT THE NEED FOR "OFF-ISLAND" WATER

## 0-5 YEARS

- CONTINUE TO MONITOR WATER TABLE LEVELS AND IMPLEMENT WATER USE RESTRICTIONS AS INDICATED.
- BEGIN DEVELOPMENT OF A GROUNDWATER MODEL [NOTE: GRANT REQUEST PENDING].
- CONDUCT A HISTORICAL SURVEY TO IDENTIFY AREAS OF CONCERN FOR FURTHER CHARACTERIZATION.
- COMPLETE THE PROJECT TO RECYCLE HEIGHTS WASTEWATER TREATMENT PLANT EFFLUENT THROUGH IRRIGATION OF GOAT HILL WHILE ENSURING THAT HEIGHTS AND WEST NECK WATER WELLS ARE NOT NEGATIVELY IMPACTED.
- IDENTIFY HIGH-VOLUME WATER USERS TO TARGET FUTURE EDUCATION, FUNDING AND SUPPORT.
- PROMULGATE REGULATIONS REQUIRING HUNTER CURVE DEMAND ANALYSIS FOR ANY PROPOSED NEW CONSTRUCTION, RECONSTRUCTION OR RENOVATION. AND AQUIFER IMPACT ANALYSES FOR DEVELOPMENT IN SENSITIVE AREAS OR LARGE HOMES/BUILDINGS (OVER 5,000SF) AND WELL RELOCATION ONTO PUBLIC PROPERTY. INCORPORATE INTO TOWN CODE [CHAPTER 43 §43-6] AND BUILDING PERMIT PROCESS.
- PROVIDE TOWN OVERSIGHT/ENFORCEMENT OF SUFFOLK COUNTY BAN ON APPLICATION OF FERTILIZER BETWEEN NOVEMBER 1 AND APRIL 1.

# KEY OUTCOME 3: CONTINUED

## 0-5 CONTINUED

- REQUIRE BUSINESSES SELLING FERTILIZER TO POST FERTILIZER AREAS WITH THE NOTICE REQUIRED BY SUFFOLK COUNTY. PROVIDE PERIODIC TOWN OVERSIGHT OF COMPLIANCE.
- REQUIRE THE USE OF 50% SLOW RELEASE FERTILIZERS ON SHELTER ISLAND.
- DEVELOP A REBATE PROGRAM AND LOW/NO-INTEREST FINANCING OPTIONS FOR REPLACEMENT OF RESIDENTIAL UNDERGROUND FUEL OIL STORAGE TANKS.
- ISSUE REGULATIONS REQUIRING ABANDONMENT OR REMOVAL OF UNDERGROUND FUEL OIL STORAGE TANKS UPON PROPERTY TRANSFER, WITH A VOLUNTARY COMPLIANCE PERIOD OF 2 YEARS FOR TANKS IN WPZS AND 5 YEARS FOR ALL OTHER AREAS FROM THE DATE THE REQUIREMENT TAKES EFFECT. *[REF: TOWN CODE CHAPTER 43 §10.3]*
- REQUIRE LANDSCAPERS TO OBTAIN A SHELTER ISLAND LICENSE (ELIMINATE CURRENT EXEMPTION FOR LANDSCAPING *[REF: TOWN CODE CHAPTER 79, §79-1]*) AND TO PROVIDE PROOF OF SUFFOLK COUNTY LICENSE AND STAFF TRAINING IN TURF MANAGEMENT AS REQUIRED BY SUFFOLK COUNTY.

# KEY OUTCOME 3: CONTINUED

## 6-10 YEARS

- REPEAT THE BASELINE STUDY OF GROUNDWATER TO IDENTIFY TRENDS AND EFFECTIVENESS OF ACTIONS TAKEN.
- REQUIRE A STANDARD, REMOTE-READING-CAPABLE WATER METER TO BE INSTALLED ON ALL NEW CONSTRUCTION.
- REQUIRE OWNERS TO CONNECT TO PUBLIC WATER SUPPLY WHERE AVAILABLE.
- REQUIRE ENHANCED RAINFALL CAPTURE SYSTEMS.

## 11+ YEARS

- COMPLETE FULL IMPLEMENTATION OF A GROUNDWATER MODEL AND INTEGRATE ITS USE INTO TOWN DECISION-MAKING AND APPROVAL PROCESSES. (E.G. BUILDING PERMITS, PLANNING AND ZONING BOARD REVIEW AND APPROVAL PROCESSES).

# KEY OUTCOME 4: SURFACE WATERS WITHIN AND SURROUNDING SHELTER ISLAND WILL NOT BE NEGATIVELY IMPACTED BY HUMAN ACTIVITY ON SHELTER ISLAND

## 0-5 YEARS

- DEVELOP A MONITORING PROGRAM FOR SURFACE WATERS CONTAINED WITHIN AND SURROUNDING SHELTER ISLAND IN CONJUNCTION WITH THE NATURE CONSERVANCY AND THE PECONIC ESTUARY PARTNERSHIP. THE PURPOSE IS TO DEVELOP A DATABASE OF LOCAL SURFACE WATER QUALITY INFORMATION THAT CAN BE USED TO TREND POLLUTANT LEVELS, ASSIST IN THE GROUNDWATER MODELING AND MANAGEMENT EFFORTS, AND ASSIST WITH SHELLFISH MANAGEMENT AND AQUACULTURE ACTIVITIES.
- PARTICIPATE IN LOCAL ACTIONS TO ADDRESS THE PARASITE-INDUCED 2019 SCALLOP DIE-OFF AND IMPLEMENT APPROPRIATE PREVENTIVE MEASURES.
- REVISIT THE REQUIREMENT FOR PERMEABLE DRIVEWAYS SINCE IT IS COMMON PRACTICE TO APPLY PESTICIDES TO GRAVEL AND OTHER PERMEABLE DRIVEWAY MATERIALS. THE PESTICIDES ENTER RUNOFF DURING STORMS.
- CONTINUE TO IMPROVE CONTROL OF STORM WATER RUNOFF TO REDUCE CONTAMINATION OF GROUND AND SURFACE WATERS.
- CONTINUE TO IMPLEMENT THE SHELTER ISLAND WATERSHED MANAGEMENT PLAN.

## **KEY OUTCOME 4: CONTINUED**

### **0-5 CONTINUED**

- CONTINUE TO IMPROVE CONTROL OF STORM WATER RUNOFF TO REDUCE CONTAMINATION OF GROUND AND SURFACE WATERS.
- CONTINUE TO IMPLEMENT THE SHELTER ISLAND WATERSHED MANAGEMENT PLAN.

### **6-10 YEARS**

- ACHIEVE FULL COMPLIANCE WITH THE OBJECTIVES OF THE WATERSHED MANAGEMENT PLAN.

THE FOLLOWING ARE  
RECOMMENDATIONS PROPOSED  
IN THE COMPREHENSIVE PLAN

# NATURAL RESOURCES & WATER QUALITY: GOALS & RECOMMENDATIONS

GOAL: ENSURE THAT ALL SHELTER ISLAND RESIDENTS HAVE READY ACCESS TO DRINKING WATER THAT MEETS ALL APPLICABLE LOCAL, STATE AND FEDERAL STANDARDS. ALL GROUNDWATER SHALL FOLLOW THE STRICTER OF NEW YORK STATE AMBIENT GROUNDWATER STANDARDS AND GUIDANCE VALUES OR MAXIMUM CONTAMINANT LEVEL GOALS (MCLGS) TO THE GREATEST EXTENT FEASIBLE AND PRACTICABLE. WATER QUALITY THAT IS BETTER THAN THE EXISTING STANDARDS SHOULD BE PRESERVED, TO THE GREATEST EXTENT FEASIBLE AND PRACTICABLE.

- CONTINUE TO IMPLEMENT THE SHELTER ISLAND GROUND AND SURFACE WATER MANAGEMENT PLAN.

**GOAL**: PLAN FOR AND DEVELOP WASTEWATER AND WATER SUPPLY INFRASTRUCTURE TO SAFEGUARD PUBLIC HEALTH, PROTECT THE ENVIRONMENT, AND PROMOTE SUSTAINABLE DEVELOPMENT.

- CONSIDER ESTABLISHING AN ISLAND-WIDE WASTEWATER MANAGEMENT DISTRICT, OR LOCAL COMMUNITY DISTRICTS (CLUSTER SYSTEMS).
- CONTINUE INVESTIGATING METHODS TO TREAT EFFLUENTS FROM MUNICIPAL BUILDINGS IN TOWN CENTER.
- PARTNER WITH THE SHELTER ISLAND HEIGHTS PROPERTY OWNERS CORPORATION TO UPGRADE THE EXISTING SEWER PLANT IN THE HEIGHTS, PROVIDE SERVICE TO OTHER AREAS, AND EXPLORE ALTERNATIVE METHODS OF DISPOSING OF THE TREATED EFFLUENT.
- ASSESS THE NEED FOR PUBLIC WATER UTILITY SERVICE

# NATURAL RESOURCES & WATER QUALITY: GOALS & RECOMMENDATIONS

**GOAL:** EDUCATE AND ASSIST PROPERTY OWNERS ON HOW TO PREVENT CONTAMINATION OF PRIVATE WATER WELLS AND SAFEGUARD THEIR DRINKING WATER QUALITY.

- EDUCATE THE PUBLIC ON THE WATER QUALITY IN THEIR AREA AND ENCOURAGE TESTING OF PRIVATE WELLS.
- DEVELOP AN INCENTIVE PROGRAM FOR RESIDENTS TO TEST THEIR WELL WATER AND SHARE THE DATA WITH THE TOWN FOR THE PURPOSE OF ESTABLISHING GROUNDWATER QUALITY MAPPING.
- DEVELOP WELLHEAD PROTECTION ZONING FOR THE AREA OF RECHARGE FOR THE WELLS OF EACH OF THE PUBLIC WATER SYSTEMS.
- CONTINUE THE GRANT PROGRAM FOR I/A SYSTEM INSTALLATION
- PURSUE GRANT AND OTHER FUNDING OPPORTUNITIES FOR WATER QUALITY IMPROVEMENT PROJECTS.

**GOAL:** STRENGTHEN TOWN REGULATIONS TO PROTECT GROUNDWATER AND PREVENT CONTAMINATION.

- IMPLEMENT SOURCE WATER PROTECTION PROGRAMS THAT IDENTIFY VULNERABLE AREAS AROUND WELLS AND OTHER GROUNDWATER SOURCES.
- REVISIT THE TOWN'S I/A OWTS CODE.
- ADDRESS ISSUES AND RISKS OF UNDERGROUND FUEL OIL STORAGE

# NATURAL RESOURCES & WATER QUALITY: GOALS & RECOMMENDATIONS

**GOAL:** CONTINUE TO MONITOR WATER TABLE LEVELS AND IMPLEMENT WATER USE RESTRICTIONS AS INDICATED TO SUPPORT THE DRINKING WATER NEEDS OF THE ISLAND RESIDENTS WITHOUT THE NEED FOR “OFF ISLAND” WATER.

- IMPLEMENT WATER USE RESTRICTIONS AS INDICATED IN THE DROUGHT MONITORING CRITERIA ESTABLISHED BY THE WATER ADVISORY COMMITTEE (WAC).
- REVISE THE IRRIGATION LAW TO PROMOTE CISTERN USE AND DISCOURAGE TRUCKED IN WATER FOR IRRIGATION.
- EVALUATE POLICIES WHICH ADDRESS USE OF IRRIGATION.
- DEVELOP A GROUNDWATER MODEL
- IDENTIFY HIGH-VOLUME WATER USERS TO TARGET FUTURE EDUCATION, FUNDING, AND SUPPORT.
- IMPROVE EDUCATION ABOUT WATER CONSERVATION AND LANDSCAPING BEST PRACTICES.

**GOAL:** PROTECT SURFACE WATERS SURROUNDING SHELTER ISLAND FROM BEING HARMED BY HUMAN ACTIVITY AND STORMWATER RUNOFF.

- Reduce the discharge of volatile organic compounds and other contaminants to groundwater through education and Town Code modification.
- Provide upland storm water catchment detention and recharge infrastructure to better control stormwater runoff and to reduce contamination of ground and surface waters
- Continue to monitor the health of surface waters.

# NATURAL RESOURCES & WATER QUALITY: GOALS & RECOMMENDATIONS

**GOAL:** IDENTIFY, PROTECT AND ENHANCE THE QUALITY OF FRESHWATER AND MARINE HABITATS

- RESTORE TIDAL AND FRESHWATER WETLANDS HABITATS TO FOSTER THEIR CONTINUED EXISTENCE AS NATURAL SYSTEMS
- PROTECT AND RESTORE SIGNIFICANT COASTAL FISH AND WILDLIFE HABITATS AND NYSDEC CRITICAL ENVIRONMENTAL AREAS
- PROTECT UPLAND HABITATS AND TREES
- MONITOR AND CONTROL NUISANCE AND INVASIVE SPECIES
- DEVELOP AN EDUCATION PROGRAM PROHIBITING THE INTRODUCTION, THROWING, DUMPING, DEPOSITING, OR PLACING INVASIVE SPECIES ON/IN TOWN LAND AND WATERS.

**GOAL:** COMPREHENSIVELY PLANNED FOR THE USE AND PROTECTION OF WATERFRONT & WATERWAYS

- Develop a Harbor Management Plan and or a Local Waterfront Revitalization Plan
- Continue to work with the county and other towns to maintain navigable waterways, to ensure safe passage perfect preserve vistas sustained marine life and enable recreational use