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Agenda/Objectives



1. Topic Overview & Vision Statement
2. Existing Conditions Assessment
3. Explore Issues and Opportunities
4. Committee Discussion
5. Community Input
6. Next Steps

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Topic Overview: Environment/Sustainability

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Key Topics

- Renewable Energy
- Groundwater/Surface Water Quality
- Endangered Species/Natural Resources
- Sea level rise/Flooding/Resiliency
- Climate Change
- Utilities and Infrastructure

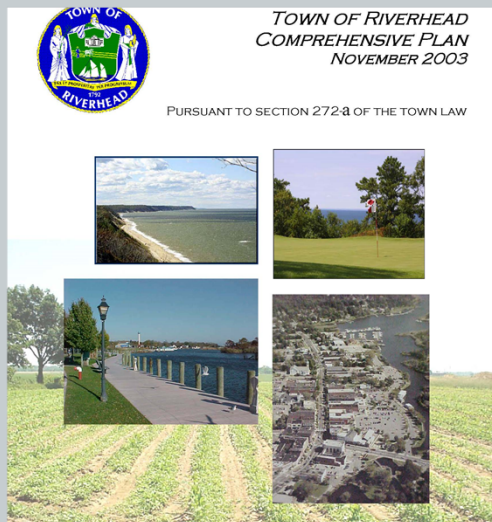


Source: Riverhead News Review

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Vision Statement – Natural Resources Element



The natural resources present in Riverhead today — including stream corridors and wetlands,

the Central Pine Barrens region, and the aquifer that provides high quality water to the Town

— are integral to Riverhead’s long-term health, safety, and well-being, as well as its identity

and economic vitality. As such, the ecological integrity of Riverhead’s natural resources must

be maintained and protected.

2003 Comprehensive Plan: Natural Resources Goals

Goals
1. Protect and preserve the ecological integrity of Riverhead’s Central Pine Barrens area and the water quality of Long Island’s sole source aquifer.
2. Protect the quality of ground water and surface waters throughout the Town.
3. Limit risk of personal injury or property damage by addressing flooding concerns throughout the Town, but particularly along the Peconic River.
4. Conserve the bluffs and woodlands overlooking the Long Island Sound and the sensitive woodland and habitat areas found between Sound Avenue and the Sound.
5. Limit development on soils that are particularly well-suited to agricultural use.
6. Continue to protect rare and/or endangered plant and animal species and their habitat areas.
7. Encourage the preservation and planting of native plants and avoid the planting of invasive plants.
8. Support initiatives for natural resource conservation and open space preservation undertaken by private property owners, non-profit organizations, and other public agencies.
9. Increase public education with regard to best practices for natural resource conservation.
10. Increase the Town’s administrative resources for working on natural resource conservation efforts.
11. Limit future increases in impervious surfaces and stormwater runoff.
12. Protect properties from risk of damage and persons from risk of injury as a result of wildfires.

Existing Conditions Assessment



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Mapped Streams and Waterbodies



Water Classifications

B Water Classification for Freshwater Surface Water Protection
These waters are of high quality and are used for drinking water. These waters are of the highest quality and are used for drinking water. These waters are of the highest quality and are used for drinking water.

C Water Classification for Drinking Water Protection
These waters are of high quality and are used for drinking water. These waters are of high quality and are used for drinking water. These waters are of high quality and are used for drinking water.

I Water Classification for Nonpoint Source Protection
These waters are of high quality and are used for drinking water. These waters are of high quality and are used for drinking water. These waters are of high quality and are used for drinking water.

SA Water Classification for Surface Water Protection
These waters are of high quality and are used for drinking water. These waters are of high quality and are used for drinking water. These waters are of high quality and are used for drinking water.

SB Water Classification for Surface Water Protection
These waters are of high quality and are used for drinking water. These waters are of high quality and are used for drinking water. These waters are of high quality and are used for drinking water.

SC Water Classification for Surface Water Protection
These waters are of high quality and are used for drinking water. These waters are of high quality and are used for drinking water. These waters are of high quality and are used for drinking water.



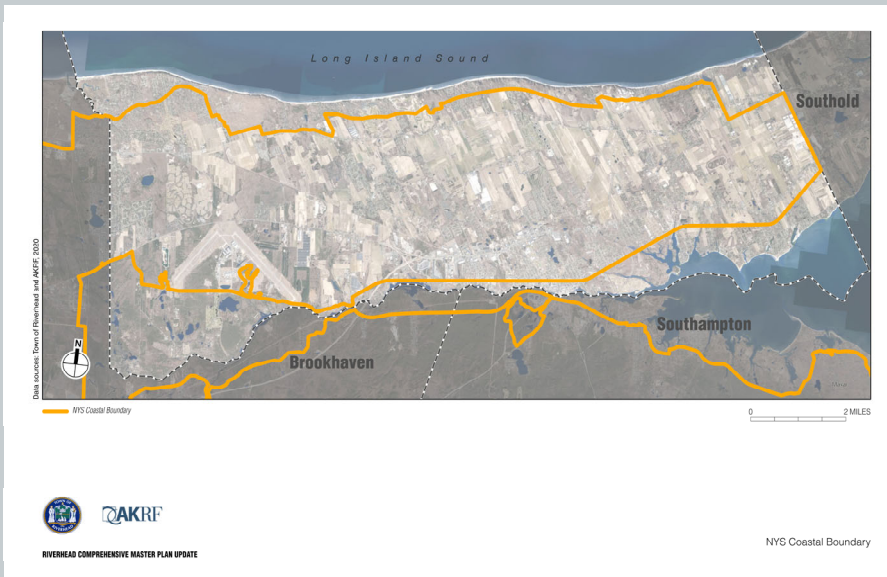
RIVERHEAD COMPREHENSIVE MASTER PLAN UPDATE

Mapped Streams and Waterbodies



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NYS Coastal Boundary



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Freshwater Wetlands



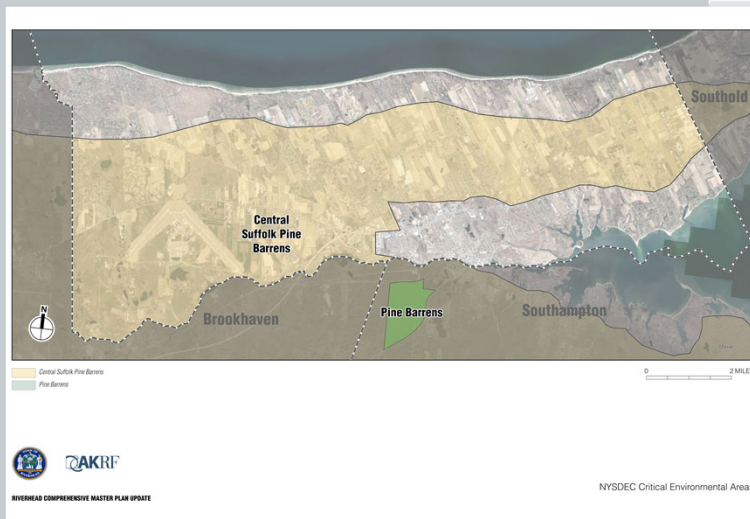
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Tidal Wetlands



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Pine Barrens



- The Central Suffolk Pine Barrens covers a majority of the Town
- NYSDEC Critical Environmental Area
- Also a Special Groundwater Protection Area

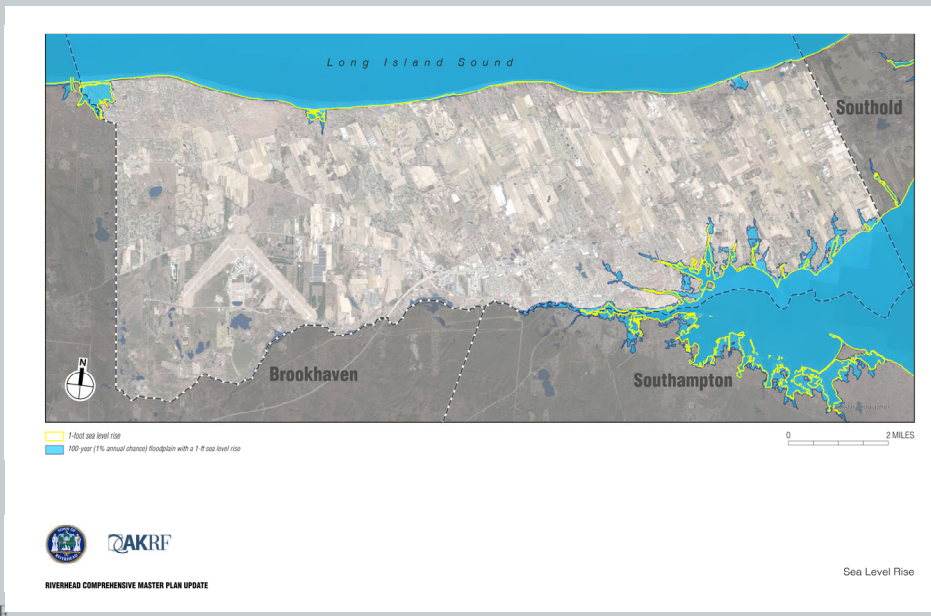
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Pine Barrens Overlay District/Credit Program

- Article XLI of the Town Code is the Pine Barrens Overlay District
 - To protect land clearing, surface and groundwater quality, ecological integrity
 - Restricts development within Core Preservation Area; regulates development with Compatible Growth Area
- Pine Barrens Credit Program
 - Provides for transfer of Pine Barrens credits from the Core Preservation Area to outside receiving sites

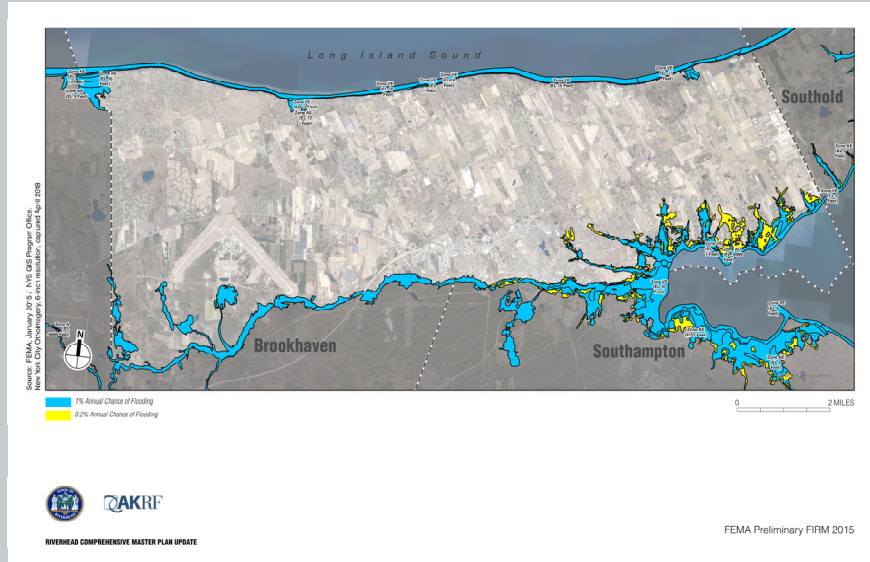
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Sea Level Rise

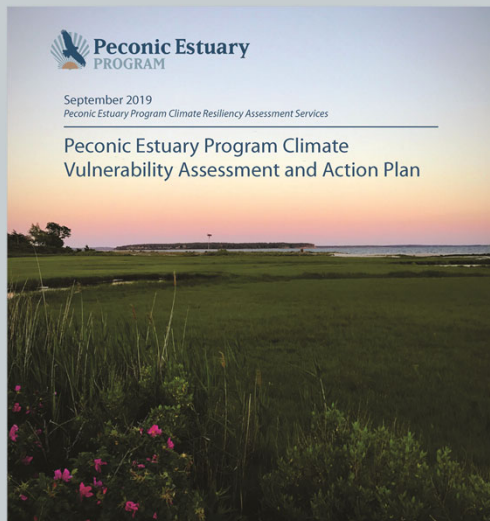


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Flood Hazard Areas



Climate Change



- Peconic Estuary Program Critical Lands Protection Strategy and Climate Action Plan
- Updated in 2019
- Climate Vulnerability Assessment and Action Plan

Issues and Opportunities

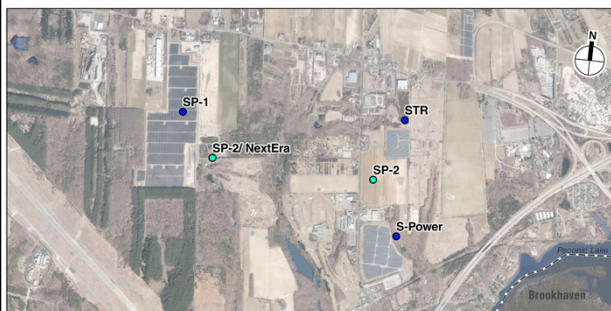
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Climate Change and Renewable Energy

- Climate change is affecting many weather and climate extremes around the globe
- Locally has implications for community health, farming, drinking water supplies, etc.
- Town took Climate Smart Pledge in 2019
- In 2019, New York State enacted the Climate Leadership and Community Protection Act (CLCPA)
- The Office of Renewable Energy Siting (ORES) and Section 94-c were established to provide an expedited permitting process for projects 25 megawatt or larger.
- Currently, most renewable generation projects in development within New York State are solar electric generating projects.
- There is currently industry support for battery energy storage in the Town
- Current demand for offshore wind is off the east coast of LI, but the Town could see increased demand for small land-based wind in the future.
- Geothermal heat pump systems may offset need for renewable energy in the future.
- Water resources and fuel cell development are less likely but may help the State to reach its green energy goals.
- On November 2, voters in New York approved "Proposal 2" and adopted a new section 19 to Article I of the state constitution that reads: "Each person shall have a right to clean air and water, and to a healthful environment." It will take effect in January 2022.

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Solar Energy Projects in the Town



Solar Energy Production Facilities
 ● Existing
 ● Proposed

AKRF
 RIVERHEAD COMPREHENSIVE MASTER PLAN UPDATE

Solar Energy Production Facilities

Project	Location (SCTM #)	Project Status*	Property Size (Acres)	Energy Produced (Megawatts)	Estimated Number of Houses Served
STR	600-117-2-9.2	Constructed and operational	13	3	900
S Power	600-137-1-32.1	Constructed and operational	45	6.3	1,260
SP-1	600-116-107.2 600-98-1-21.1	Constructed and operational	110	20	5,723
SP-2	600-116-1-7.2	Siting permit issued by ORES under 94-c	291	36	6,500
	600-116-2-1.1/2/7.4				
	600-117-2-4.1/7.2/8.2				
	600-136-1-1				
Nextera	600-116-1-7.2 600-98-1-21.1	Town Board Approved Special Permit/SEQRA review; Planning Board denied the site plan application	197	22.9	4,500
	TOTAL		656	88.2	18,883 +/-

*Note –All projects identified are located in the Hamlet of Calverton

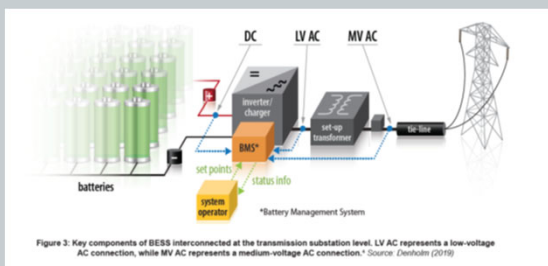


Figure 3: Key components of BESS interconnected at the transmission substation level. LV AC represents a low-voltage AC connection, while MV AC represents a medium-voltage AC connection.* Source: Denholm (2019)

Source: Riverhead News Review

Solar-Related Renewable Energy Options

- Proposed Battery Energy Storage Code
 - Benefits:
 - Renewable energy integration; help meet State's goals; consistent energy source
 - Planning Issues:
 - Must meet mandated fire suppression technology standards/farmland preservation concerns
 - How many/how much space is needed? / Where will this be located? / New technology? / Will this product taxes? / Any local benefits?

- Agrivoltaics
 - Support from LI Farm Bureau/Chamber of Commerce
 - Benefits according to NREL include:
 - Improved food production
 - Water savings
 - Renewable energy production
 - Planning Issues include:
 - Not permitted in APZ
 - Potential economic/farming constraints

Renewable Energy Development—Solar

Solar Installation Planning Issues:

- Opportunities to allow development of solar systems within the Town will need to be balanced with concerns about visual, natural resources, economic (both temporary and permanent), safety concerns with associated battery storage, and ensuring that potential impacts are not concentrated within one community:
 - Increased buffer zone restrictions may be implemented to address visual and natural resource concerns.
 - Rooftop solar requirements may be implemented to limit the land area used for solar installations.
 - Consideration of expanding zoning/special permit process to encourage less concentration of solar in one hamlet.
 - Decrease the amount of land allowed
 - Allow rooftop solar productions in all commercial zones
- If overly restrictive zoning and permitting processes are implemented, developments may opt to increase generating capacity in order to be applicable for New York State's streamlined Office of Renewable Energy Siting (ORES) process instead of the Town's procedures.



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Groundwater and Surface Water Quality Protection



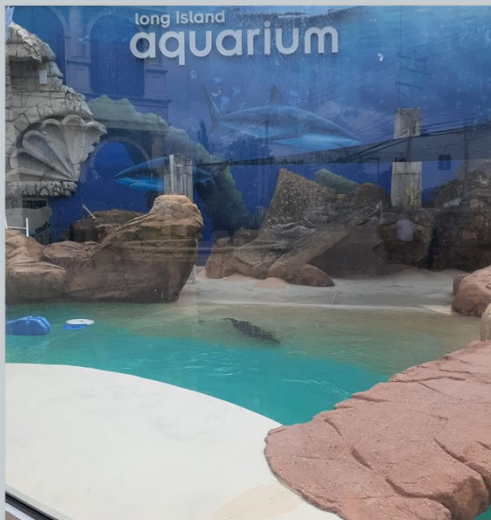
- Peconic River and Bay Protection
- Groundwater quality issue (e.g., Manorville, Peconic River Corridor)
- Conditions with plume at EPCAL (Calverton)
- Street and property runoff pollutant reductions

Source: Suffolk County GIS Division



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Endangered Species/Natural Resources



Source: Suffolk County GIS Division

- Marine habitats
- Endangered species concerns
- Pine Barrens Protection Measures
- Protection of remaining Freshwater/Tidal Wetlands
- Migratory Birds and avian habitats



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Resiliency from Sea Level Rise and Flooding

- Tools to improve resiliency may include:
 - Include climate change in comprehensive plan updates
 - Amend zoning to provide wetland setback areas
 - Amend codes to restrict hardening structures
 - Vegetative ordinances
 - Green Infrastructure to improve stormwater management
 - Buyout programs
- Climate Change Adaptation Approaches
 - Land preservation
 - Accommodation
 - Managed Retreat
 - Protection



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Utilities and Infrastructure

- Water supply dispute over EPCAL (between Town and SCWA; Town and NYSDEC)
- Lack of public water service (e.g., Manorville, Calverton)/Town seeking grants for water infrastructure upgrades
- Stormwater infrastructure issues/opportunities (e.g., storm drains on Main Street; chronic flood locations on Town Roads)
- Limited capacity at Edwards Avenue substation (Calverton)
- Modifications to Electrical Grid to accommodate renewable energy
- Incorporation of Hydrogen into Existing Natural Gas distribution system



Source: Riverhead News-Review

Committee Discussion

Discussion Format

- Please discuss your vision and potential goals and recommendations for the future of the environment in the Town
- Comments and suggestions can also be submitted in writing at www.TownofRiverheadComprehensivePlanUpdate.com
- The committee discussion will be followed by opportunity for community input

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Thank You and Next Steps

- **Fall/Winter 2021:**
 - Analyze Public Survey Results
 - Meet with the Advisory Committee
- **Winter/Spring 2022:**
 - Draft Statement of Community Goals
 - Draft Summary of Issues and Opportunities
 - Meet with community on preliminary findings and recommendations

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