



RESILIENT RHODY

AN ACTIONABLE VISION FOR ADDRESSING THE
IMPACTS OF CLIMATE CHANGE IN RHODE ISLAND

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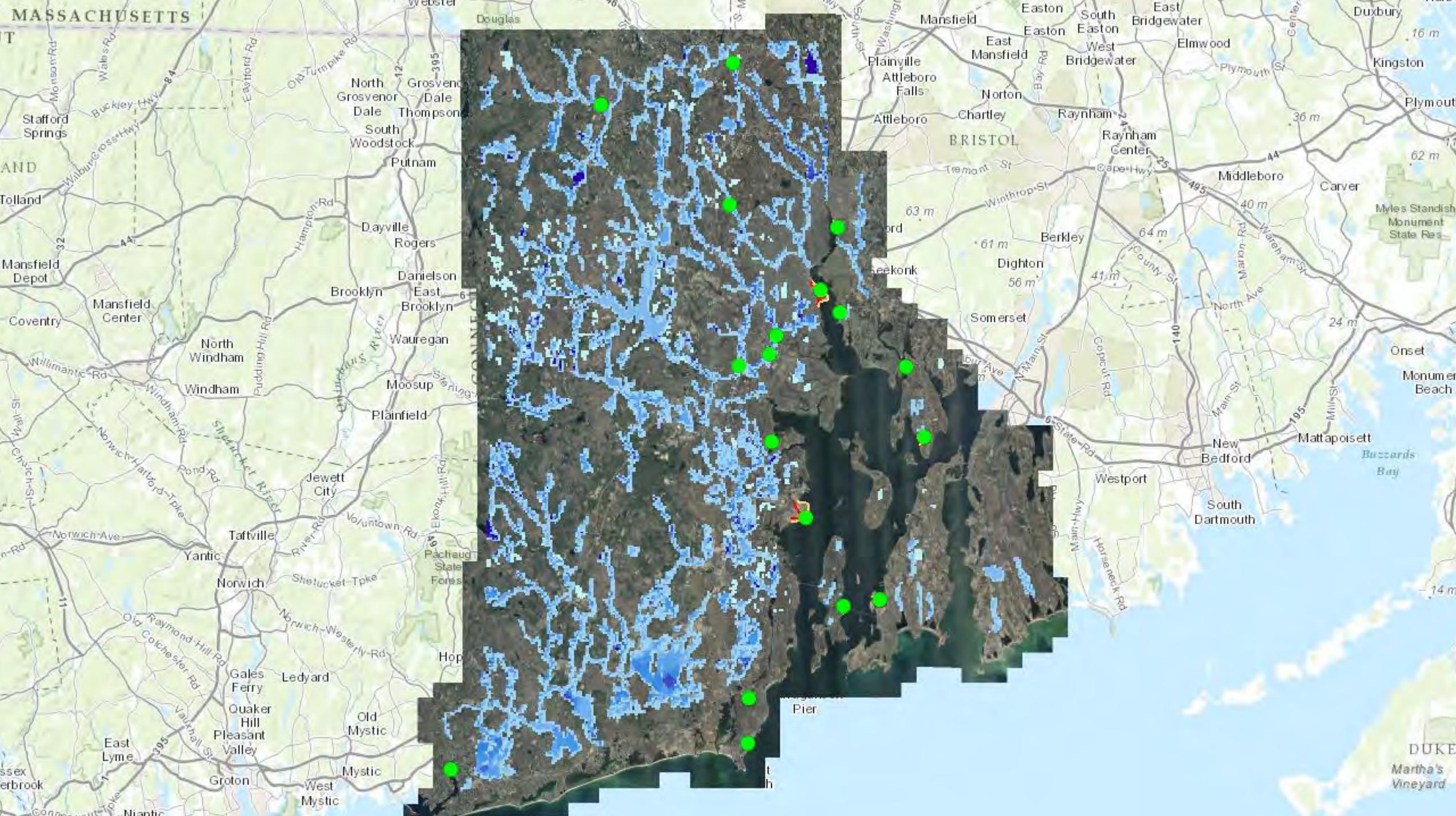
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South Kingstown Town Beach: 2005



South Kingstown Town Beach: Today





West Warwick Wastewater Treatment Facility



West Warwick Wastewater Treatment Facility: March 2010

LIVE

CRANSTON, RI



Wake Up
With Al

STORM TEARS THROUGH NEIGHBORHOOD

Westerly inundated with
flood waters in 2010



RHODE ISLAND MANIFESTATIONS OF CLIMATE CHANGE

- 1** Sea Level Rise
- 2** Warming Air Temperatures
- 3** Warming Water Temperatures
- 4** Storm Frequency And Intensity
- 5** Changing Biodiversity
- 6** Precipitation and Inland Flooding



Resilient Rhody

Strategy Goals

- Catalyze the planning and vulnerability studies already developed and move towards implementation
- Identify and prioritize resiliency actions the State can control to demonstrate progress and implementation
- Prioritize actions that promote cross-agency collaboration and support municipalities in resilience planning and project implementation

Resilient Rhody framework



Making the Case for
Climate Resilience



RESILIENCE THEME:
Emergency Preparedness



RESILIENCE THEME:
Natural Systems



RESILIENCE THEME:
Critical Infrastructure
and Utilities



RESILIENCE THEME:
Community Health
and Resilience



Financing Climate
Resilience Projects

Resilient Rhody Implementation



Resilient Rhody Implementation Priorities

- Assigned leadership across EC4 agencies
- Ownership of all 61 actions and aligning achievable 1,3,5 year goals
- Establish and accelerate funding and financing for resilience
 - Resilient Rhody has been a catalyst for \$13mm in new climate resilience funding
 - \$7mm for MRP proposed in 2021 budget
- Evaluate sustainable revenue streams for climate resilience



Resilient Rhody Municipal Resilience Program

- Developed in partnership between Rhode Island Infrastructure Bank and The Nature Conservancy
- The MRP is open to all 39 municipalities in Rhode Island
- The MRP provides technical assistance to selected municipalities to complete the “Community Resilience Building” process
- Municipalities will identify priority climate resilience projects and action grant funding is available



Resilient Rhody Municipal Resilience Program

- 5 municipalities participated in 2019
 - 48 Projects totaling ~\$14mm
- 9 municipalities selected in 2020

- 2019 Action Grants - \$1mm
 - Barrington – Coastal restoration for flood mitigation at Walker Farm
 - Barrington – Green infrastructure for water quality benefits at Bowden and Opechee Streets
 - Portsmouth – Rehabilitation and stabilization of the Melville Dam
 - Portsmouth – Three flood mitigation projects to expand the capacity of existing infrastructure for increasing precipitation volumes
 - Warren – Three green infrastructure projects to reduce runoff and improve water quality at public access points to the Warren and Kickemuit Rivers
 - Westerly – Flood protection wall at the Old Canal St. Pump Station
 - Westerly – Two green infrastructure projects to reduce flooding and improve water quality of the Pawcatuck River

Rhode Island Climate Action snapshot

State of Rhode Island
Climate Change

Search

JOBS

Home Climate Science State Actions Cities & Towns Residents Businesses Resources Resilient Rhody RI Snapshot

HOME / RI IN THE FIGHT AGAINST CLIMATE CHANGE: A SNAPSHOT

Get Involved

On-Going Initiatives

Learn About Climate Change

SPOTLIGHT: CLEAN TRANSPORTATION
Electrification of public transit

In May 2018, the State of Rhode Island announced that approximately \$14.4 million of the State's Volkswagen settlement funds would be used to take important steps toward improving air quality in Rhode Island – including the acquisition of electric buses for the Rhode Island Public Transit Authority. The State's plan calls for about \$10 million to be used to replace older diesel buses that are being retired with new, all-electric, zero-emission vehicles. RIPTA is tackling this project in two phases. First, it has launched a pilot program with three leased all-electric buses. Then, based on what it learns from the pilot, RIPTA plans to purchase 16 to 20 electric buses as permanent additions to its fleet. [Learn more](#)

RI in the Fight Against Climate Change: A Snapshot

Rhode Island is working to combat climate change on many fronts, and this dashboard is designed to highlight a handful of key metrics.

CLEAN ENERGY

79% toward the goal of increasing RI's clean energy tenfold by 2020

WHY IT MATTERS

A 400MW offshore wind farm can produce approximately one-quarter of all the electricity used by Rhode Islanders annually – without contributing to climate change through greenhouse gas emissions.

[Learn more](#)

ENERGY EFFICIENCY

3.4 From 2007-2018, energy efficiency measures have saved electric power equal to that generated by 3.4 power plants (500 MW). From 2008-2018, the greenhouse gas emissions prevented by RI's natural gas efficiency programs are equal to taking 174,482 passenger vehicles off the road for one year.

WHY IT MATTERS

There are lots of ways to become more energy efficient. You can install LED light bulbs, reinsulate your home, invest in energy star appliances and smart controls such as Wi-Fi thermostats. Schedule a free energy audit for your home or business to find out what programs may be available to help pay for your energy efficiency upgrades. Call 1-888-633-7947 for info.

[Learn more](#)

SPOTLIGHT: PROTECTED LANDS
Urban Forests for Climate and Health

The Urban Forests for Climate and Health initiative originated from the Resilient Rhody strategy and will create a suite of tools that Rhode Island municipalities can use to help identify planting locations that maximize public health and climate mitigation potential. The initiative is focused on helping Rhode Island reach its carbon sequestration goals through urban tree planting while providing policy, funding, and implementation technical assistance. Rhode Island is a two-year, statewide demonstration of a national initiative on Natural and Working Lands funded by the Doris Duke Charitable Foundation.

SPOTLIGHT: RESILIENT COMMUNITIES
City of Newport Wastewater Treatment Facility Resilience Upgrades

The City of Newport is

GREEN JOBS

16,021 green jobs - the clean energy economy has grown by 74% since 2014

WHY IT MATTERS

Fighting climate change is good for the economy. Energy efficiency jobs make up the largest sector of the clean energy economy, with efficient heating and cooling representing the largest rate of growth.

[Learn more](#)

CLEAN CARS

427% Electric vehicles in Rhode Island have increased 427% from 2015 to 2019. There are now 2,342 electric vehicles in Rhode Island.

WHY IT MATTERS

Electric vehicles (EVs) are powered by electricity, which as an energy source is cleaner than gas. They produce less pollution than a conventional gas-powered vehicle. Reduced harmful tail-pipe pollutants is good news for our health; better air quality will lead to fewer health problems and costs caused by air pollution.

[Learn more](#)

PROTECTED LAND

8,077 acres of land have been protected by the state since 2010. This represents a 10% increase in total land protected by state programs over the last 8 years.

WHY IT MATTERS

Farms, forests, and open space filter and clean our water, provide recreational opportunities, and support our agricultural and tourism economies. They also cool our cities by blocking and absorbing sunlight and help fight climate change by storing carbon dioxide.

[Learn more](#)

The City of Newport is implementing a series of improvements to the Newport Water Pollution Control Plant. These upgrades are intended to address wet weather flows and mitigate combined sewer overflows (CSOs), which are a substantial source of water pollution. Among the upgrades that can treat to better handle wet weather events, chemically-enhanced primary treatment, biofilters and improved solids management to minimize odors and a UV disinfection system to protect against the escape of bacteria. Additionally, the City is financing for solar panels that will provide a portion of the facility's electricity and energy efficiency measures will reduce the amount of energy that the facility requires to operate.

RESILIENT COMMUNITIES

30/39 municipalities have approved Hazard Mitigation Plans to prepare their communities for the impacts of climate change. Additionally, 5 out of 39 communities are participating in the Resilient Rhody: Municipal Resilience Program to identify priority projects to further prepare their communities for climate change.

WHY IT MATTERS

Here's one of many examples. The Block Island landfill (closed in 1990) is subject to severe coastal erosion. Storms, including Superstorm Sandy, cut away at the seaward slope and large amounts of debris washed into the ocean. Subsequent storms exacerbated water quality and public safety concerns. The Block Island Landfill Slope Repair Project pulled back the ocean facing slope of the landfill and created a strong stone revetment while also incorporating beach grass for stabilization.

[Learn more](#)

REDUCED EMISSIONS

11.7%

RI's 2016 greenhouse (GHG) emissions are estimated at 11.02 MMTCO₂e (in RI's most recent GHG Emissions Inventory) which is a 11.7% reduction below 1990 levels. RI's Resilient RI Act sets a goal to reduce emissions ten percent (10%) below 1990 levels by 2020, with ultimately an 80% reduction by 2050.

WHY IT MATTERS

When we burn fossil fuels for energy, we add more and more carbon dioxide into the atmosphere. This buildup acts like a blanket that traps heat. Increases in heat-trapping-gases (e.g. carbon dioxide) lead to many adverse effects, such as extreme storms, rising temperatures, and rising sea levels. Rhode Island is committed to the Paris Climate Accords, an agreement to address climate change by reducing human-induced heat trapping gases. RI completed an in-depth plan in 2016 for reducing its emissions.

[Learn more](#)

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www.climatechange.ri.gov

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Resilient Rhody Municipal Resilience Program

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- Kim Jacobs, Barrington Resiliency Planner
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- Lisa Pellegrini, Director, Department of Development Services, Town of Westerly