



# Exploring Climate Solutions Webinar Series

*Brought to you by the Governor's Council on Climate Change (GC3)*

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## *Resilient Rhody – Financing Solutions to Address the Impacts of Climate Change*

April 21, 2020

# Resilient Rhody

*Financing Solutions to Address the Impacts of  
Climate Change*

Presented to the Connecticut Governor's Council on Climate Change



**RHODE ISLAND**  
**INFRASTRUCTURE BANK**

April 21, 2020

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2. Formalizing RIIB's Approach to Climate Resilience
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# RI Infrastructure Bank Overview

# About the Infrastructure Bank

Rhode Island's  
centralized  
hub of local  
infrastructure  
investment



# Diversified Product Offerings



Wastewater, Sewer and Stormwater



Drinking Water



Residential septic and sewer tie-in



Road and Bridge



Commercial Clean Energy (C-PACE)



Clean Energy for Public Sector Entities

# Our Impact Since 2015



\$579 MM in new lending, 63% leveraging private capital sources



Our lending generated \$136 MM in financial and energy savings for local communities



Financed more than \$74 million of road and bridge projects across Rhode Island cities and towns



Supported almost 14,000 direct and indirect jobs

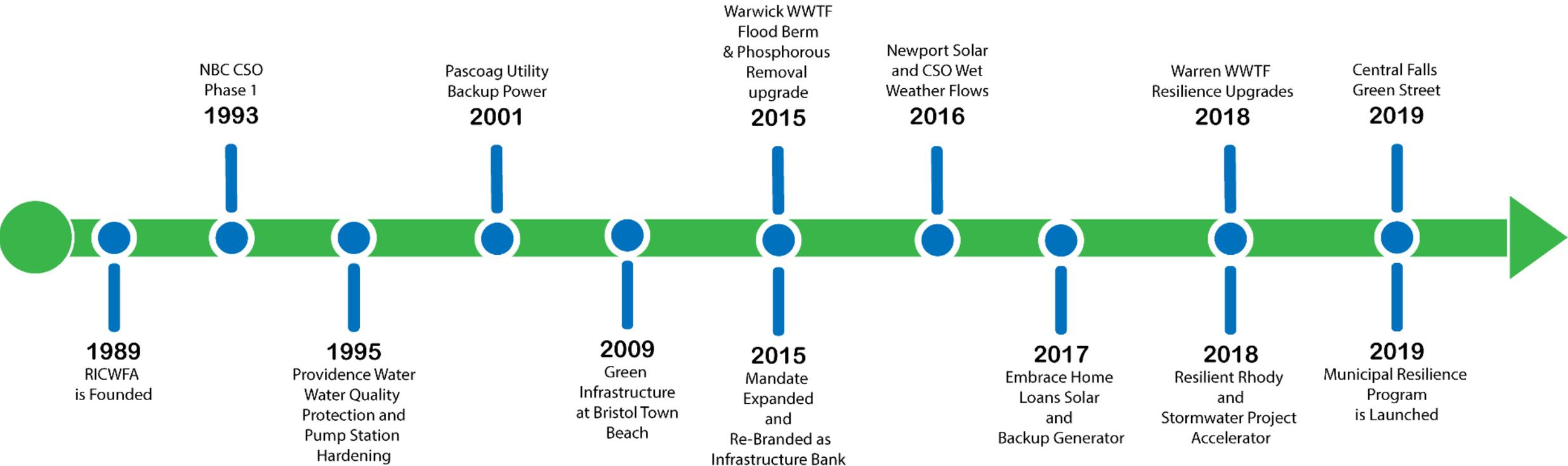


Greenhouse gas emissions reduction equivalent to 142 MM miles driven by the average passenger car



Fully deployed new financial & loan management software

# Evolution of Climate Resilience at the Bank



# How We Deliver Value



## Choice

Full set of infrastructure investment products

Flexible engagement model

Ability to innovate and meet future customer needs

Technical assistance to disaggregate project components



## Ease of Doing Business

Flexibility in meeting customers needs off-cycle

Proactive business development team organized by customers

Responsive to emergency capital needs

Improving business conditions & reducing regulatory hurdles



## Low Cost Lending

Below-market rates

Savings on interest and fixed transactions costs

Reduces administrative functions of public debt issuances

# How we work



# Formalizing RIIB's Approach to Climate Resiliency

# Establish a Framework for Success

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- Initiate focused approach
  - Convene experts from across the state
  - Green Infrastructure Strategic Advisory Council
  - Engage stakeholders
- Develop capacity
  - Establish new position with defined responsibilities
  - Build institutional support
- Establish leadership
  - Identify funding and financing gaps
  - Accelerate project implementation
  - Develop and fund new programs

# Implementing the Strategic Imperative

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- Technical assistance
  - Internal and with stakeholders
  - Supplement local expertise and knowledge
  - Rapid response to overcome barriers to implementation
- Project origination
  - Solution-oriented approach
  - Build project pipeline
  - Link projects to funding and financing
- Influence and modify resilience thought process
  - Integrating climate risk into our credit approval process
  - Project financing disaggregation
  - Wholistic approach to project review, integration and execution

# Strategic Implementation and Resilient Rhody Initiatives



# RESILIENT RHODY

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



# 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 by the Numbers

- 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 Municipal Resilience Program proposed in 2021 budget
- Established a process for building a pipeline of climate resilience projects





RESILIENCE THEME:

# Financing Climate Resilience Projects

*Groundbreaking of the Warren Wastewater Treatment Facility*

Communities across Rhode Island face an urgent need to build climate resilient infrastructure that will survive extreme weather events.

There are several existing loan, bond, and grant programs for addressing climate resilience, and many new financing mechanisms currently under development by state and local agencies.

# Existing Financing Tools for Climate Resilience

## CRITICAL INFRASTRUCTURE AND UTILITIES

FINANCE TOOL	WATER	POWER	TRANSPORTATION
CLEAN WATER STATE REVOLVING FUND	X	X	
DRINKING WATER STATE REVOLVING FUND	X	X	
USDA RURAL DEVELOPMENT LOAN PROGRAM	X	X	
BONDS	X	X	X
RIIB STORMWATER ACCELATOR	X		
EFFICIENT BUILDINGS FUND		X	
WATER INFRASTRUCTURE FINANCE AND INNOVATION FUND	X		
ELECTRIC/GAS RATEPAYER FUNDS		X	
ENERGY SAVINGS PERFORMANCE CONTRACTS		X	
POWER PURCHASE AGREEMENTS		X	
PROPERTY ASSESSED CLEAN ENERGY	X	X	
MUNICIPAL ROAD AND BRIDGE REVOLVING FUND			X
TAX INCREMENT FINANCING	X	X	X

## NATURAL SYSTEMS

FINANCE TOOL	COASTAL	INLAND
MITIGATION BANKING	X	X
LAND TRUST	X	X
CLEAN WATER STATE REVOLVING FUND	X	X
DRINKING WATER STATE REVOLVING FUND		X
BONDS	X	X

## EMERGENCY PREPAREDNESS

FINANCE TOOL	COASTAL	INLAND
EFFICIENT BUILDINGS FUND	X	X
PROPERTY ASSESSED CLEAN ENERGY	X	X
MUNICIPAL ROAD AND BRIDGE REVOLVING FUND	X	
BONDS	X	X

## COMMUNITY RESILIENCE

FINANCE TOOL	COASTAL	INLAND
EFFICIENT BUILDINGS FUND	X	
PROPERTY ASSESSED CLEAN ENERGY	X	X
BONDS	X	X
TAX CREDITS		X
FHA MORTGAGES		X

# Stormwater Project Accelerator

- Accelerate implementation of stormwater projects through low-cost upfront capital
- Backed by a funding source that will eventually reimburse the project
- First projects completed in fall 2019
- Pipeline of ~\$3M in projects over next 9 months



# Resilient Rhody: Municipal Resilience Program

- Partnership between Rhode Island Infrastructure Bank and The Nature Conservancy
- The MRP is open to all 39 municipalities in Rhode Island
- Provides technical assistance to complete the “Community Resilience Building” process to identify projects
- Action grant funding is available to implement priority projects



# Resilient Rhody: Municipal Resilience Program

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

2019 MRP Action Grants		
Municipality	Project Type	Action Grant Award
Barrington	Coastal restoration and green stormwater infrastructure	\$201,000
Portsmouth	Dam rehabilitation and green stormwater infrastructure for flood mitigation and water quality benefit	\$339,000
Warren	Green stormwater infrastructure at public access points	\$156,000
Westerly	Flood protection at wastewater treatment facility pump station	\$304,000
		\$1,000,000

# 2020 Priorities

## Do

### Implement High Impact Resilience Projects

- Schoolhouse Road elevation and Kickemuit River Dam removals
- All MRP funded projects

## Support

### Build a centralized resource for funding and financing opportunities

- Resource to be updated regularly and includes timelines, project applicability, and key contacts

## Inspire

### Update on Resilient Rhody progress and project case studies

- Publish an update to Resilient Rhody with progress made to identified actions and new climate science available.

# Climate Action Snapshot

**State of Rhode Island Climate Change**

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

## 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](#)

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### 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](#)

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### 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](#)

### 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 MMTCO<sub>2</sub>e (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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