

Session III: Resilient Communities and Climate-Ready Infrastructure

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Greater Portland Council of Governments

Victoria Hill

Town of Bridgton

Nell Donaldson

Director of Special Projects, City of Portland

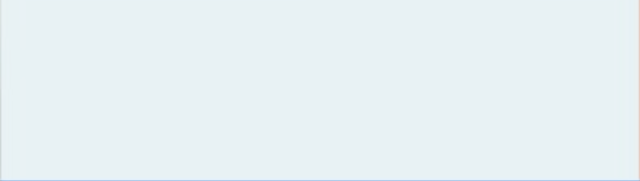
Allen Kratz

Resilience Works LLC

Martha Sheils

Director, New England Environmental Finance Center





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Session 3/Resilient Communities and Climate Ready Infrastructure

Gabe McPhail, Vinalhaven
Downtown Project Consultant,
Resilient Communities L3C



Vinalhaven Downtown Project

*Vinalhaven Island, Knox County
Community Action Grant Recipient
Spring 2022*



Project Development

- Develop Project Team
- Design and Engineer Project
- Fund Project
- Permit and Construct Project

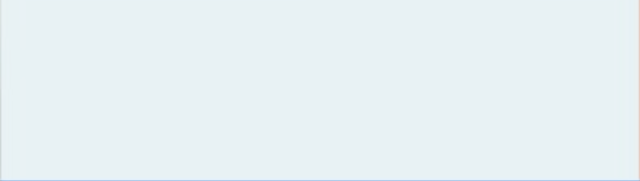
Project	Construction	Admin	A&E	Town Match	State Match	WD Match	Grant	Total Match	Total Project
EDA (Town pays)	\$3,734,000	\$33,316		\$767,000	\$625,000	\$500,000	\$1,875,316	\$1,892,000	\$3,767,316
			\$424,160						\$4,191,476
NBRC	\$1,327,000	\$50,000	\$623,000	\$677,760	\$50,000		\$1,000,000	\$1,000,000	\$2,000,000
				\$272,240	\$250,000				
CPF / EPA	\$1,200,000		\$210,000				\$1,410,000	\$352,500	\$1,410,000
Totals	\$6,261,000	\$83,316	\$1,257,160	\$1,717,000	\$925,000	\$500,000	\$4,285,316	\$3,244,500	\$7,177,316

Community Action Grant





What Does Success Look Like?



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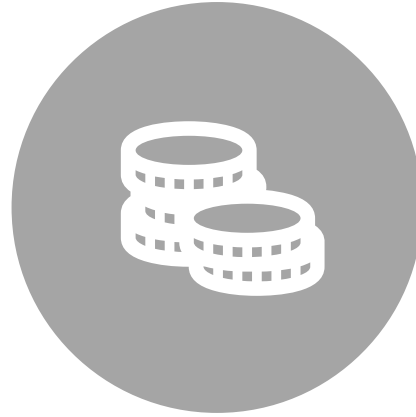
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Sara Mills-Knapp, GPCOG
Victoria Hill, Town of Bridgton

The Challenge



CAPITAL INVESTMENT PROCESS LACKS
STRUCTURE AND CLARITY



DECISIONS ON INVESTMENT MADE
SOLELY BASED ON COST



LACK OF CONSIDERATION OF
SUSTAINABILITY BENEFITS

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Process

- Resilience pilot workshops identified key challenges and impacts of climate hazards
- Bridgton priorities include
 - Loss of open space
 - Climate impacts on natural resources
 - Impacts to vulnerable populations

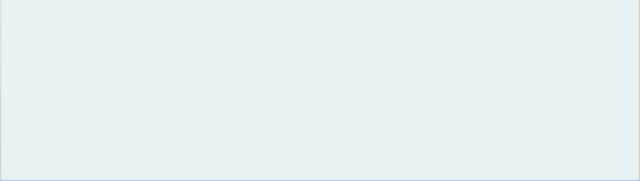


Results: Screening Tool

- Equity and Community Wellbeing
- Environmental Stewardship
- Infrastructure and Technology
- Economic Development
- Planning Documents (when applicable)



Criteria	Sub-criteria	Sub-criteria Grade: Yes (1-3), N/A (0), or No (-1)	Sub-criteria Weight (optional)	Sub-criteria Score (optional)	Potential Indicators
Maintains or improves water quality	Avoids current and/or future pesticide use		1	0	Utilize mulch or native/well-adapted plants Creates policy or campaign to encourage residential or small business reduction in pesticide use
	Manages nutrient in water resources		1	0	Limits excess nutrients in the water (i.e. soil testing before fertilizer use, aquaculture, or wastewater treatment upgrades) Provides educational programming on nutrient management strategies Includes steps to limit improper nutrient management
	Prevents runoff		1	0	Increase stormwater management capacity by an identified percentage Provides educational programming on methods to reduce runoff Incorporates methods for reducing runoff (i.e. minimizing impervious surfaces, roof gardens, and tree plantings)
	Incorporates vegetation		1	0	Project includes plantings of trees, wildflowers, or other vegetation Project encourages residents to plant vegetation
					Project protects or conserves an established number of acres Project avoids the development of or disturbance of forested land
Land Use	Protects and conserves forests		1	0	Project protects or conserves an established number of acres Project avoids the development of or disturbance of forested land
Maintains or protects habitats and biodiversity	Identifies and protects vulnerable species in the project area		1	0	Project consults an ecologist or equivalent expert Implements precautions to protect identified species (i.e. bird safe glass)
	Minimally disturbs or maintains habitat		1	0	Plan identifies habitat in the project area and an outlined approach to protect said habitat (i.e. avoid development in specific areas or create green roofs with native plants) Project consults an ecologist or equivalent expert
	Creates new or restores habitat		1	0	A pre-identified area of habitat is to be created (i.e. utilizes wildflowers, native trees or shrubs, nest boxes, ponds, reduces lawn areas, etc.)



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Nell Donaldson, Director of
Special Projects, City of Portland

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The Challenge

High heat

+

More precipitation

+

Sea level rise

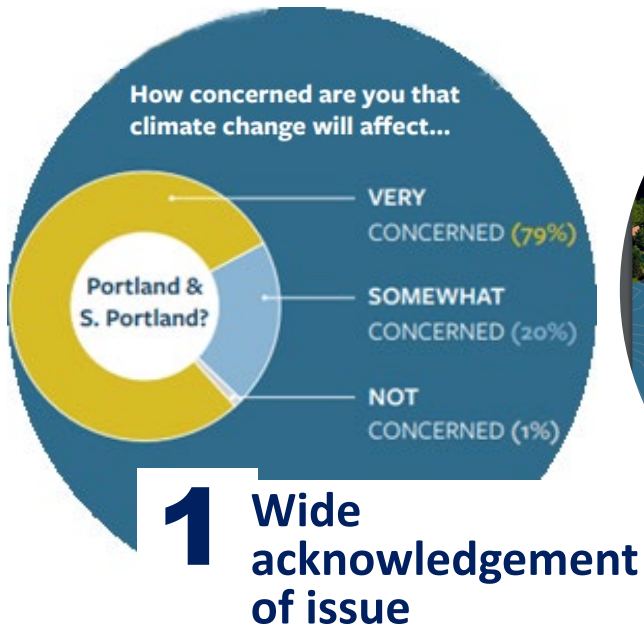
Vulnerable properties
and vulnerable people



Photo credits: PPH, MainePublic, Portland Trails, Roux Institute

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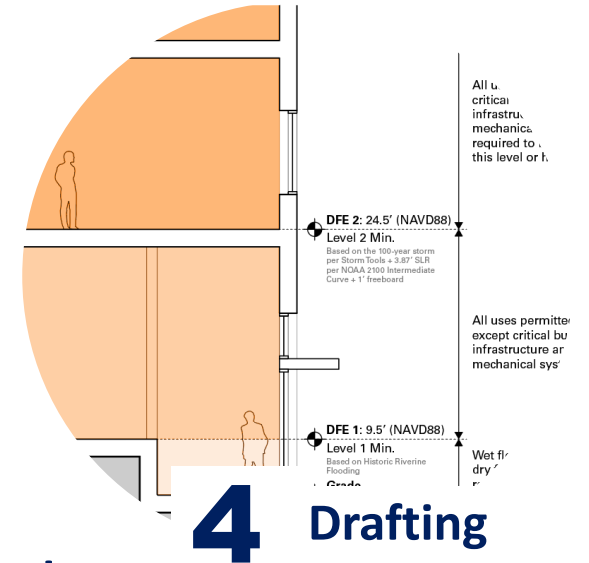
Process



Resilient Building and Site Parameters

Parameter	Methods for Achieving the Parameter	Notes
Component 1: Resilience to flooding from storms and sea level rise		
Resilient building form	<ul style="list-style-type: none"> a) Elevate on open foundation (applicable for buildings in VE or coastal A flood zones) b) Elevate on solid foundation with filled subgrade space (applicable for buildings not exposed to wave action) c) Elevate on fill (applicable for buildings not exposed to wave action) d) Wet floodproofing, which allows floodwaters to enter and exit portions of a building that are not used for living space. 	Develop to choose and to align with (e.g., 1' depending on alignment)

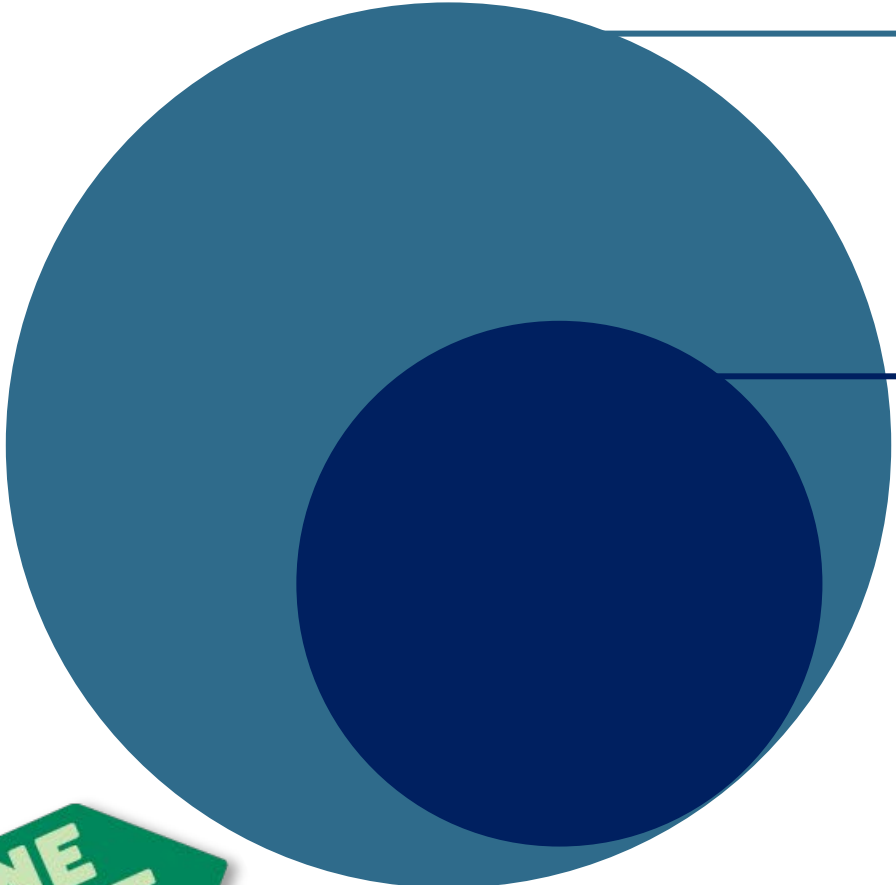
3 Concurrence on technical approach



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Solutions



WHOLE CITY

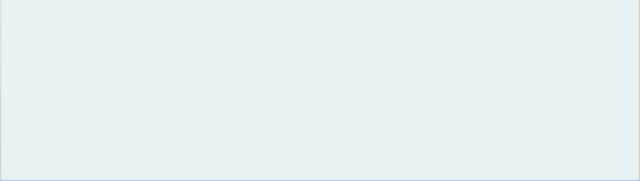
- Landscape
- Cool roofs/hardscape
- Stormwater
- Wetland fill

RESILIENCE OVERLAY

- First story use
- First story wet/dry floodproofing
- Critical systems elevation
- Ground floor elevation
- Preservation and creation of pervious natural/open spaces

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Allen Kratz, Resilience Works LLC

The Challenge

Fund climate readiness

Blue Hill

Wastewater

Treatment Facility



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Process

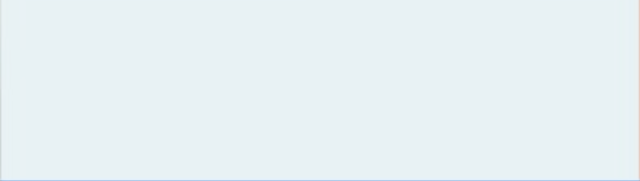
- Identify funds
- Generate regional support
- Use each grant to leverage the next



Insights

- Funders provide advice
- Think strategically
- Community members like helping





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Martha Sheils, Director, New
England Environmental Finance
Center

Resource Wrap-Up

Navigating an Unprecedented Federal Funding Landscape

How the NEEFC Can Help

- **MISSION:** Provide *innovative financing solutions* that help states, tribes, local governments, nonprofits, community-based organizations, and the private sector pay for climate resilience projects
- **BARRIERS to overcome:** low capacity to find and apply for funding/financing, and to manage grants/loans for the life of the project

NEEFC provides **FREE technical assistance** to bring communities to the funding and financing table – **PROVIDING** capacity and **BUILDING** local community capacity.



Infrastructure Investment and Jobs Act – or “BIL”

The single largest investment in water that the federal government has ever made

- U.S. EPA to distribute more than \$50 billion to improve our nation’s **drinking water, wastewater, and stormwater infrastructure.**
- A significant portion of water infrastructure dollars flow through the Clean Water and Drinking Water State Revolving Funds (SRFs).
 - Below market interest rate on loans
 - Forgivable loans and grants to disadvantaged communities (100% for emerging contaminants like PFAS)
- Must ensure that disadvantaged communities benefit equitably from this historic investment in water infrastructure



Opportunity for the next 5 years

New England Water Infrastructure Network

Bridging the Gap Between Community Water Challenges & Investment in Water Infrastructure for Future Generations

FREE training and technical assistance to **municipalities, organizations,** and **tribes** - prioritizing **underrepresented** communities and those with **pressing water quality challenges.**



Services of NEEFC & Partners



NEEFC and our specialized partners bring certain FREE technical assistance at each phase of the project

Some communities may need one distinct service while others may need the full spectrum which may take longer



Contact Information

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neefc.org



Small Group Discussion Instructions (until 3:15pm)

See instructions and prompts on the pink sheet of paper at your table.

Discussion Prompts

1. **Introductions:** Introduce yourself to your tablemates.
2. **Quick round robin:** Share what your town is working on related to the panel topic. Where are you in the process? What's going well? Where are you stuck? If this topic is new to you, what opportunities come to mind?
3. **Funding resources:** Reflect on the funding resources presented. If you have used this resource, please share your experience. What other resources, technical assistance, grant programs, or tools are you using or exploring?
4. **Learning partners:** I wish I could have a thought-partner to work through _____ in our project.
5. **Community engagement:** How are you engaging your community with your project? What input do you need from the community to make this project a success? What do you want the community to know?

