



Social Dimensions and Policy Perspectives from Maine

By Jessica Brunacini, PhD
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Wells National Estuarine Research Reserve

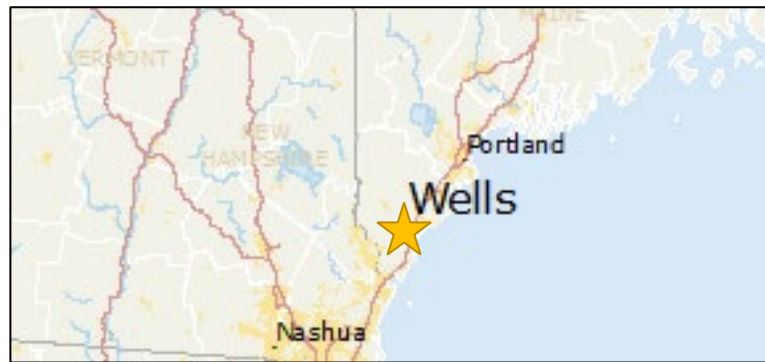
Part One:

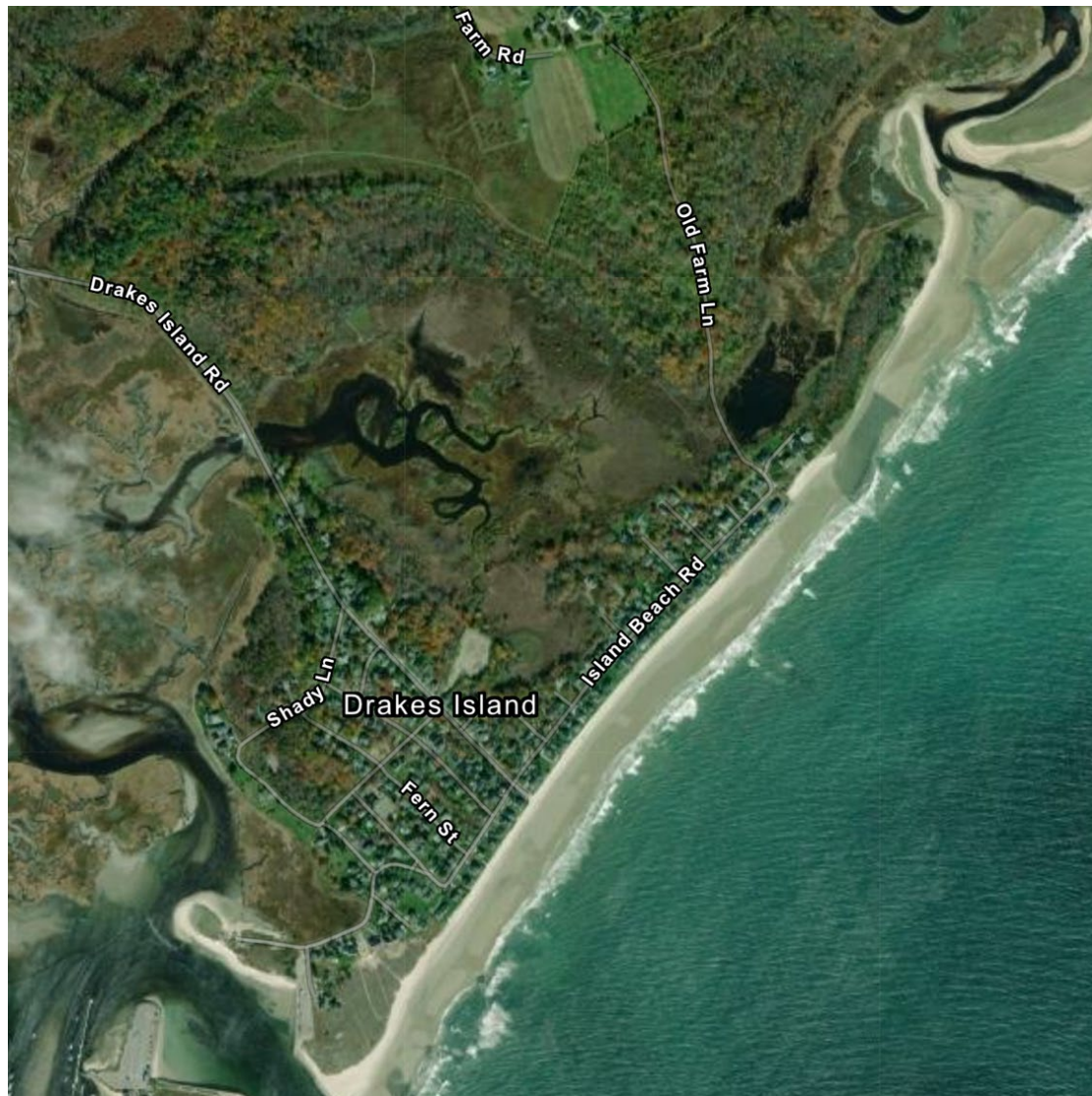
Social Dimensions

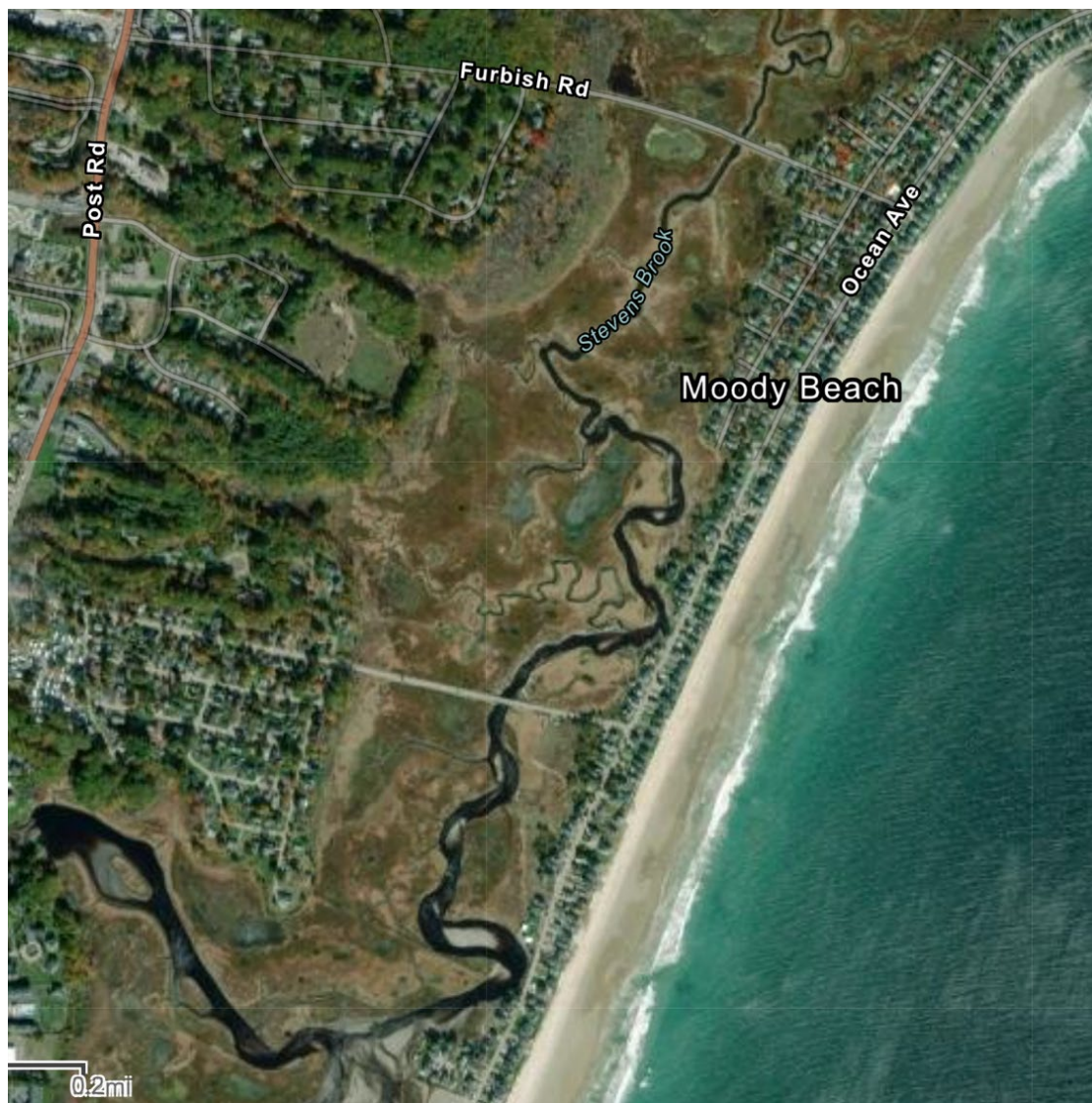
How we respond to the impacts of sea level rise is a complex, technical matter. For many, it is also a deeply emotional experience.

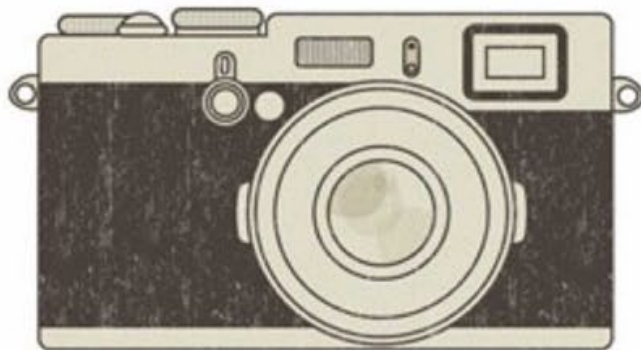
Place Attachment:

The bonding that occurs
between individuals and
their meaningful environments.









Photovoice

**When it comes to [this place],
what do you care about most?**



“According to my grandparents, Drakes Island is a completely different place than the sleepy beach community of 50 years ago...Storms are more severe and weather is less predictable, and it seems like the seawalls will need to be fortified in coming decades. I **sometimes worry about the future of my relationship to Drakes Island as it continues to change**, but it's reassuring that even as things change around them, my family remains a constant.”



“The weather that day was clear and sunny, mid-50’s, winds out of the west at 5 MPH. By all accounts, a rather lovely day in November. A King Tide occurred around noon reaching heights of +11.4 feet. **This aerial footage shows the impact of the sea, ON A GOOD DAY. Imagine adding to the mix stronger winds off the ocean, or even a storm event? These potential compounding effects could be even more devastating.”**



“About a hundred yards from the “Drakes Island” marker on the Barrier Beach trail, this sign is a sobering reminder that **future generations of Drakes Island residents will be displaced and lose their homes if sea levels continue to rise to their projected levels.**”

“Is it stupid and selfish to hold on to this, rather than, say, okay, we've had a good run of, you know, 60 years or so. And maybe cash in on it. But I'm selfishly holding on to it and hoping I can still drive onto the island for the rest of my life.”

“I'm concerned about, you know, will the cottage be able to be the same in 20 years? Or will the waves breaking over the seawall...water coming over...will they have to rebuild it or build a new house? Because the water levels have increased so much? But I don't honestly spend a lot of time thinking about this, because then it will give me anxiety. It will make me anxious.”

“It was heartbreaking, over the winter when there were storms, to watch the waves come over the dune...It's scary, because you're like, this place isn't forever...it's undeniable that there is change.”

**“Our house is not on the beach,
but I expect it will be someday.”**

**“At what point do you decide,
this is economically not sensible to stay here?”**


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“Place Detachment”:

A process “whereby individuals and groups anticipate and negotiate the negative future consequences of remaining in a place by **intentionally loosening existing attachments** and forming new ones elsewhere.” Agyeman et al. 2009, pg. 512

Place Attachment:

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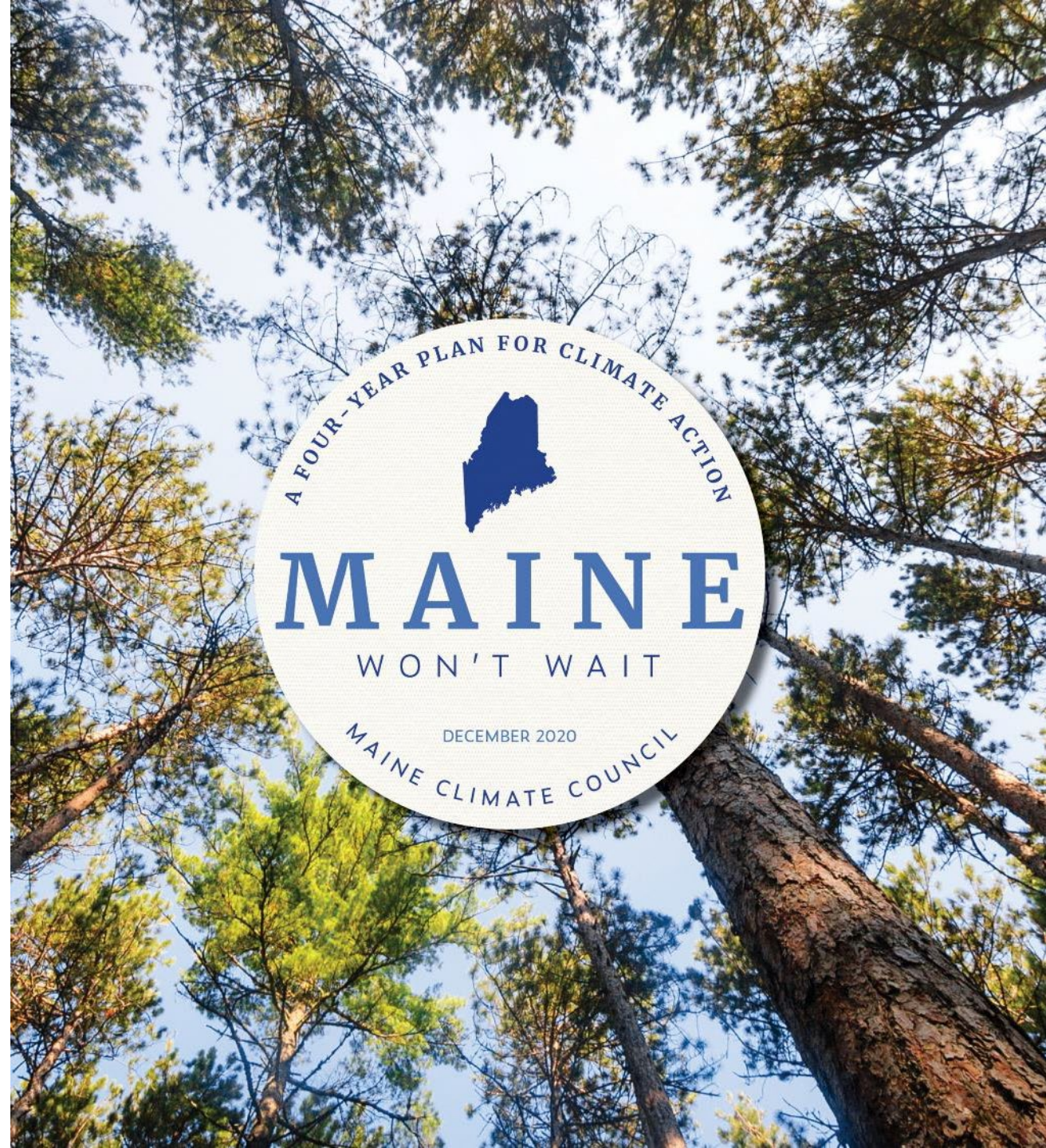
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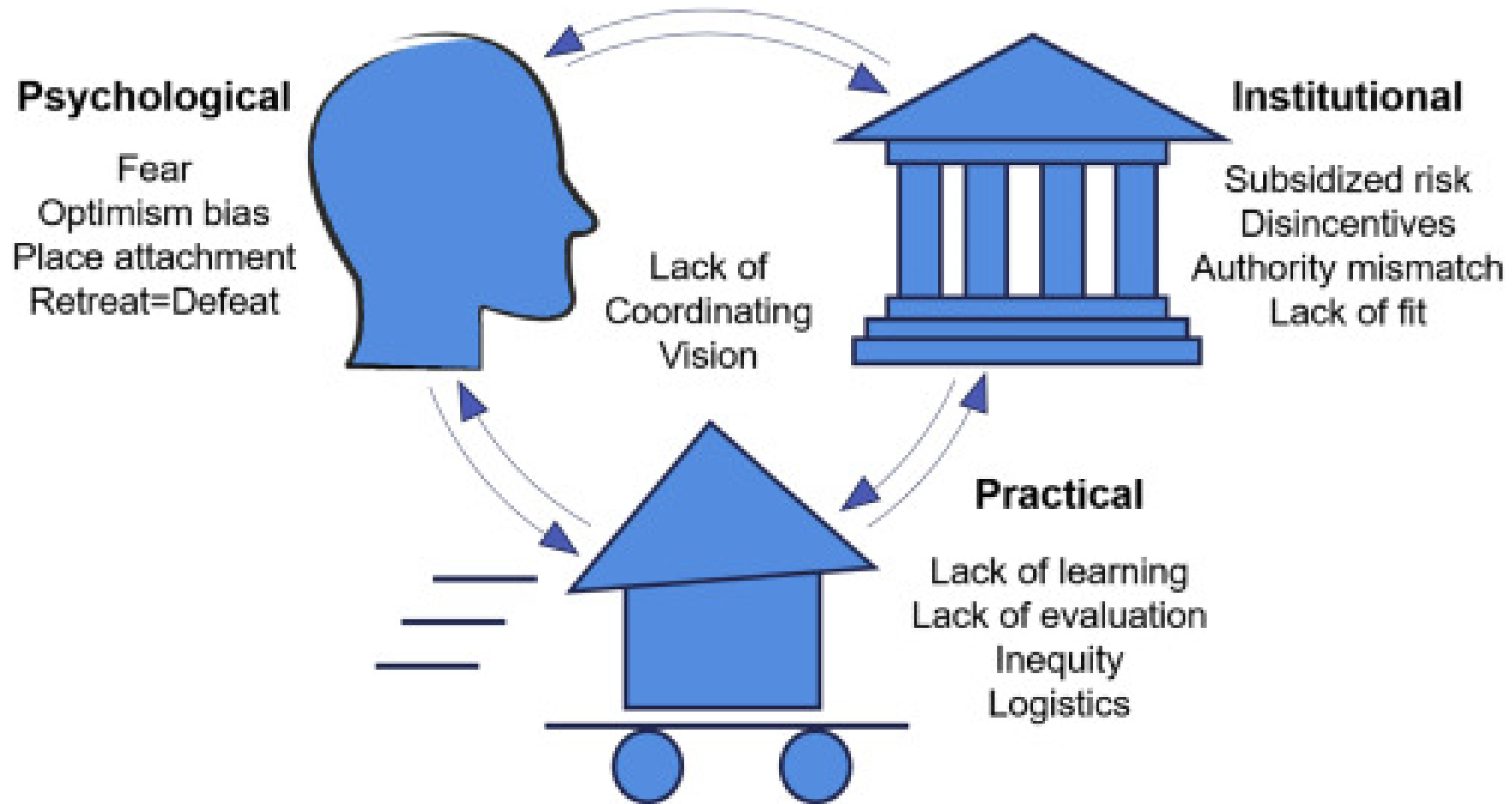
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Part Two: Policy Perspectives

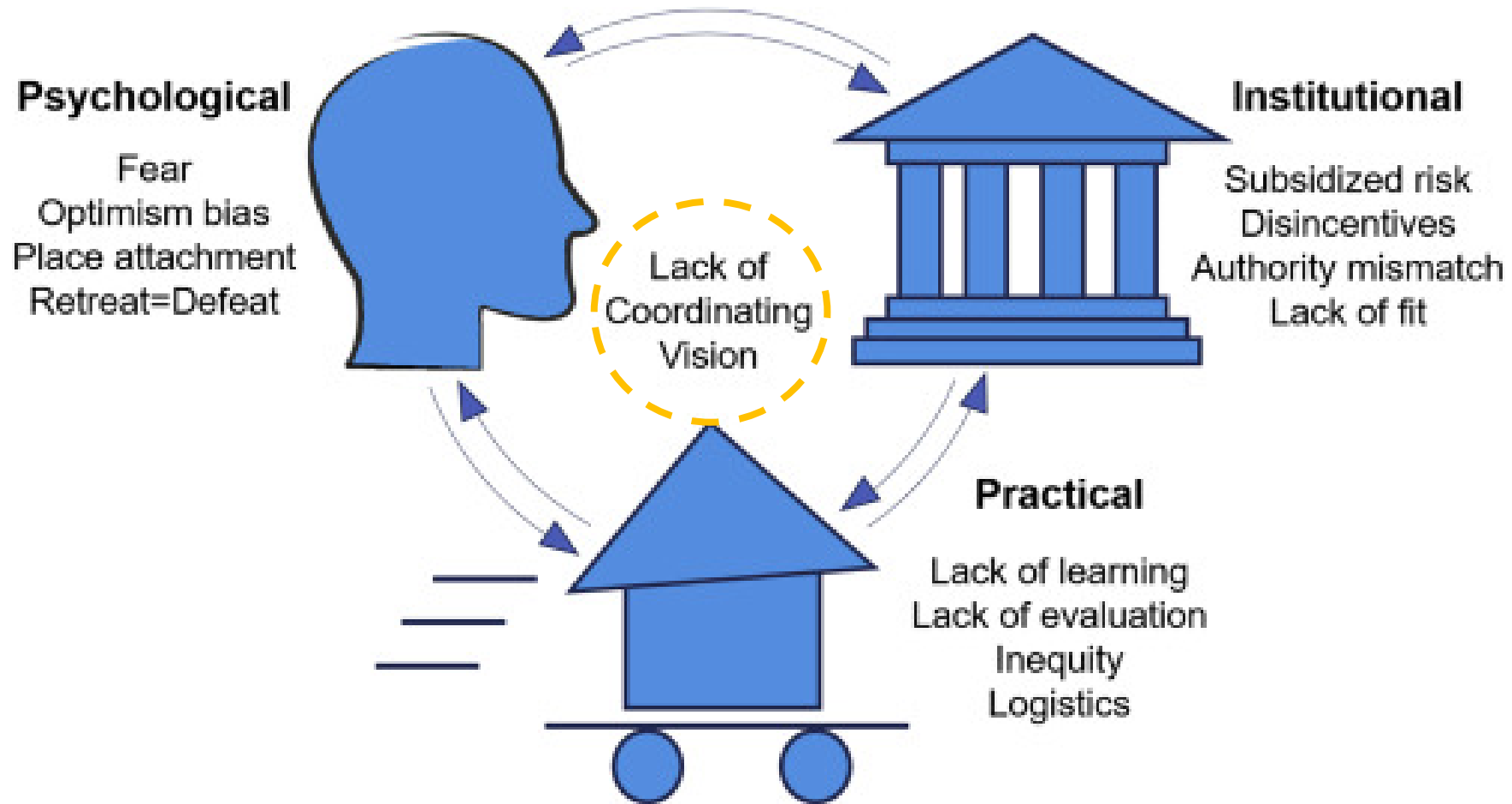
Maine Won't Wait 4-Year Climate Action Plan



Barriers to “Getting Out of Harm’s Way”



Barriers to “Getting Out of Harm’s Way”



Community Resilience Working Group Policy Recommendations

Policy Concept #1: Develop or strengthen policies, regulations, and funding mechanisms to support coordinated actions across the full spectrum of resilience strategies (Avoid, Protect, Accommodate/Adapt, and Remove/Relocate)

Policy Concept #2: Conduct a feasibility study to explore potential funding mechanisms for, as well as social, economic, and cultural implications of, a state-level buyout and acquisition program

Policy Concept #3: Develop a framework and identify funding to support facilitated community conversations for collaborative learning, dialogue, deliberation, and long-term planning around removal / relocation strategies

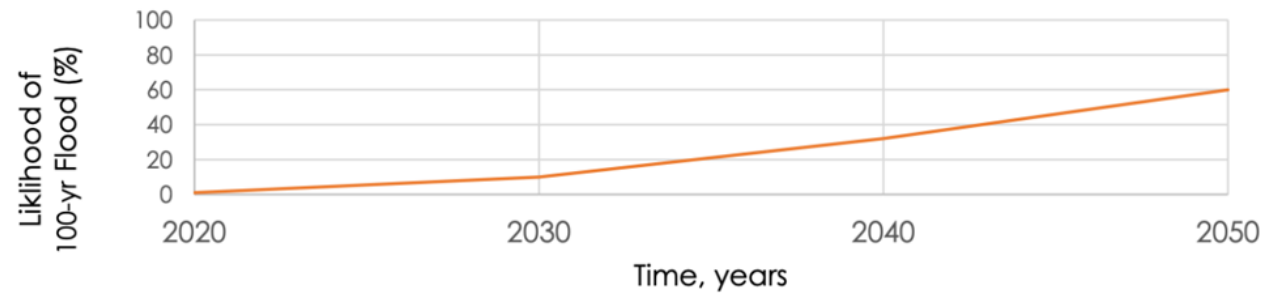
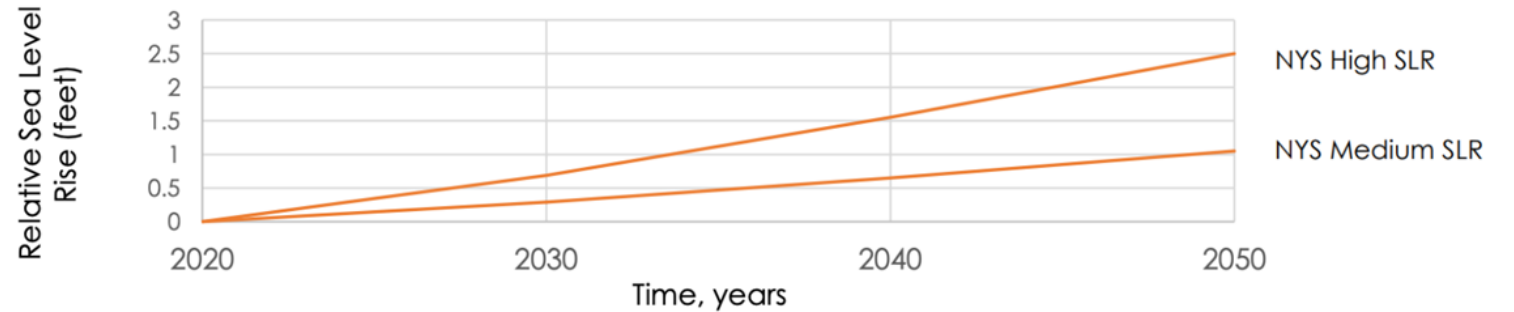
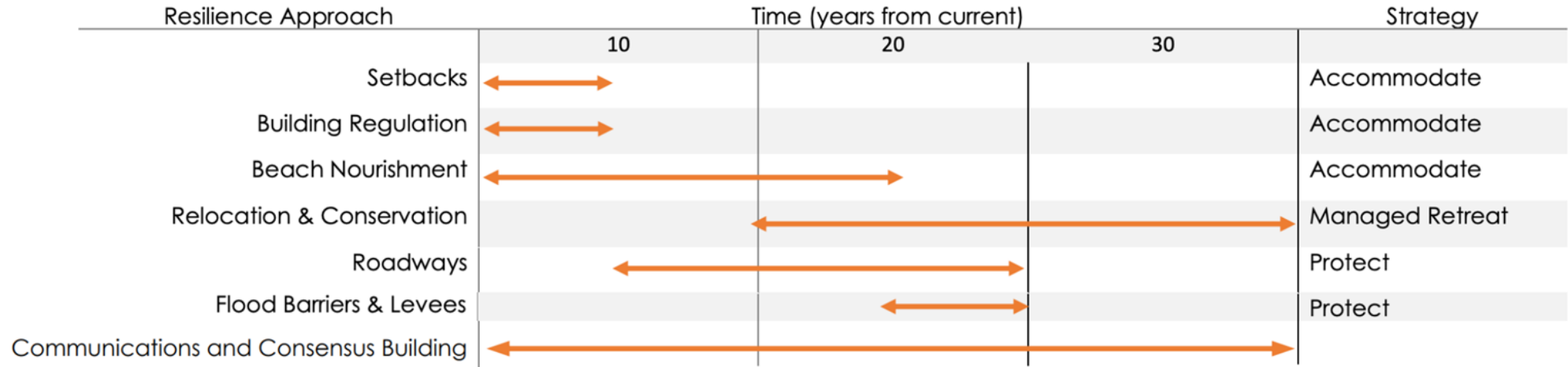
Spectrum of Resilience Strategies



<i>Strategy</i>	Protect	Accommodate / Adapt	Avoid	Remove / Relocate
<i>Approach</i>	E.g., Improved permitting for Nature-Based Solutions	E.g., Increase Floodplain Management Ordinance to BFE+3	E.g., Establish Transfer of Development Rights program	E.g., Explore a statewide voluntary buyout program



Example: Town of East Hampton, NY Resilience Timeline



Feasibility Studies Enable Informed Decision-Making

Hawai'i Assessment Example:

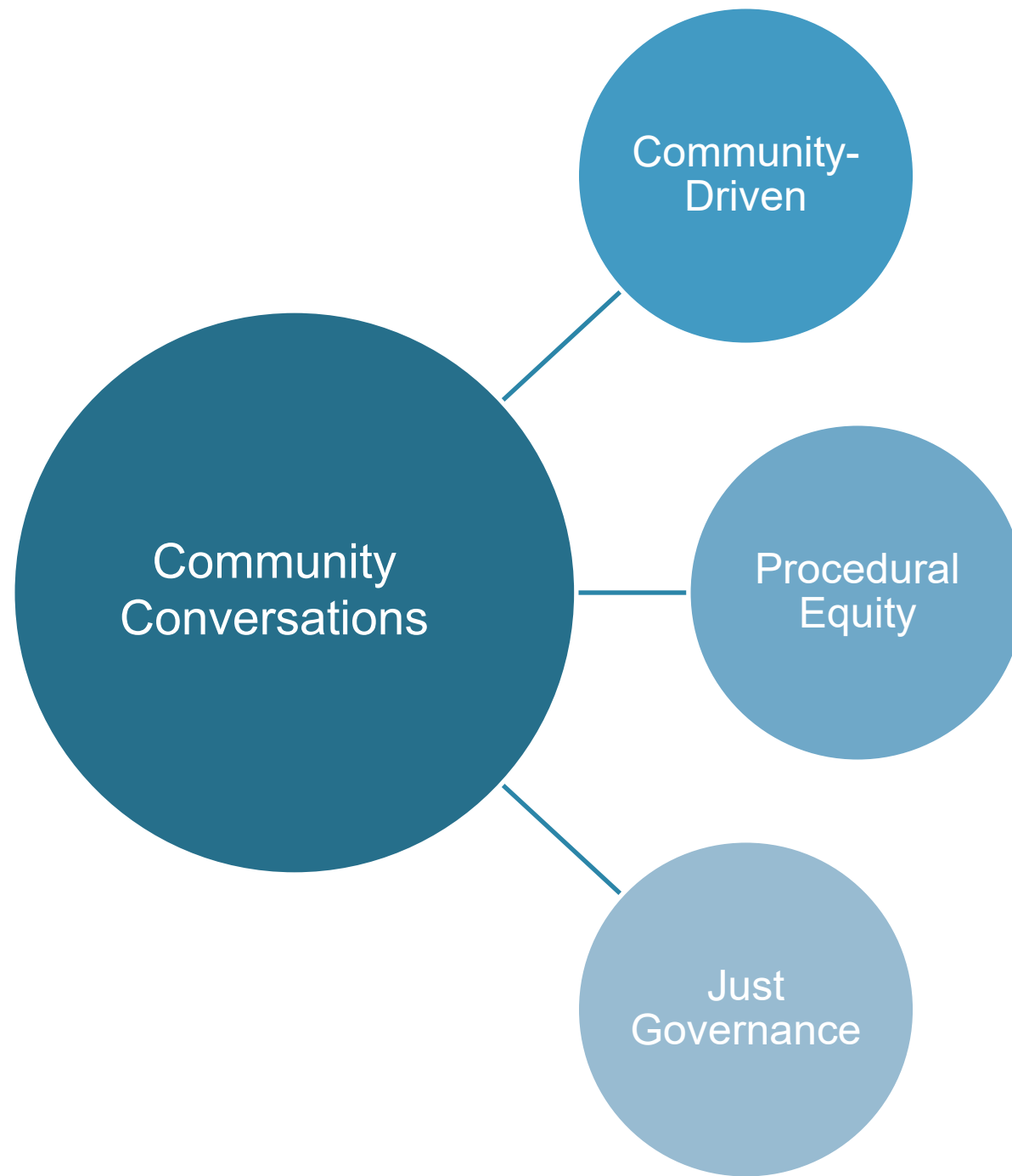
- Comprehensive review and synthesis of relevant research
- Scenario Profiles
- Symposium
- Final Report

ASSESSING THE FEASIBILITY
AND IMPLICATIONS OF
MANAGED RETREAT STRATEGIES
FOR VULNERABLE COASTAL AREAS
IN HAWAII

Final Report

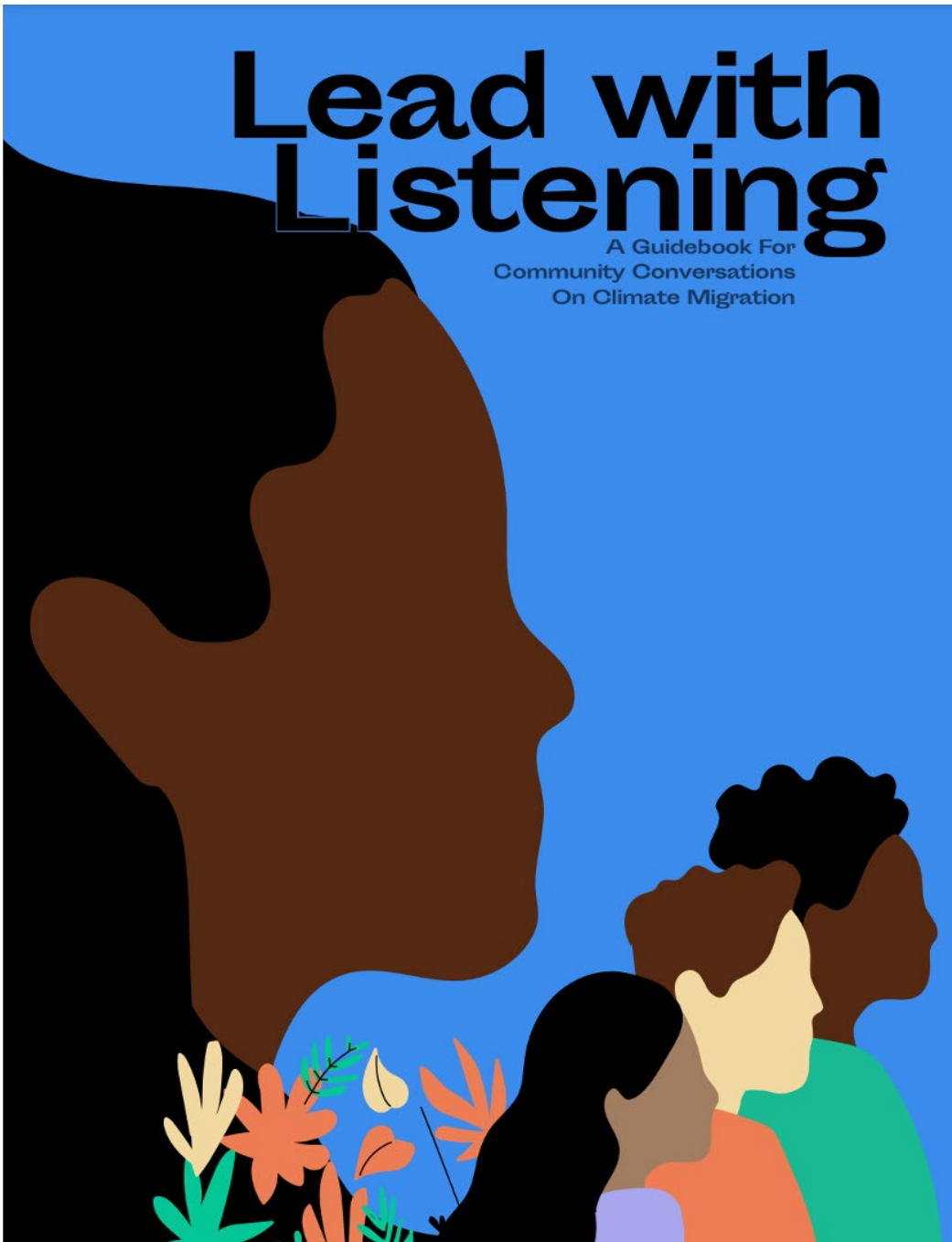
February 2019





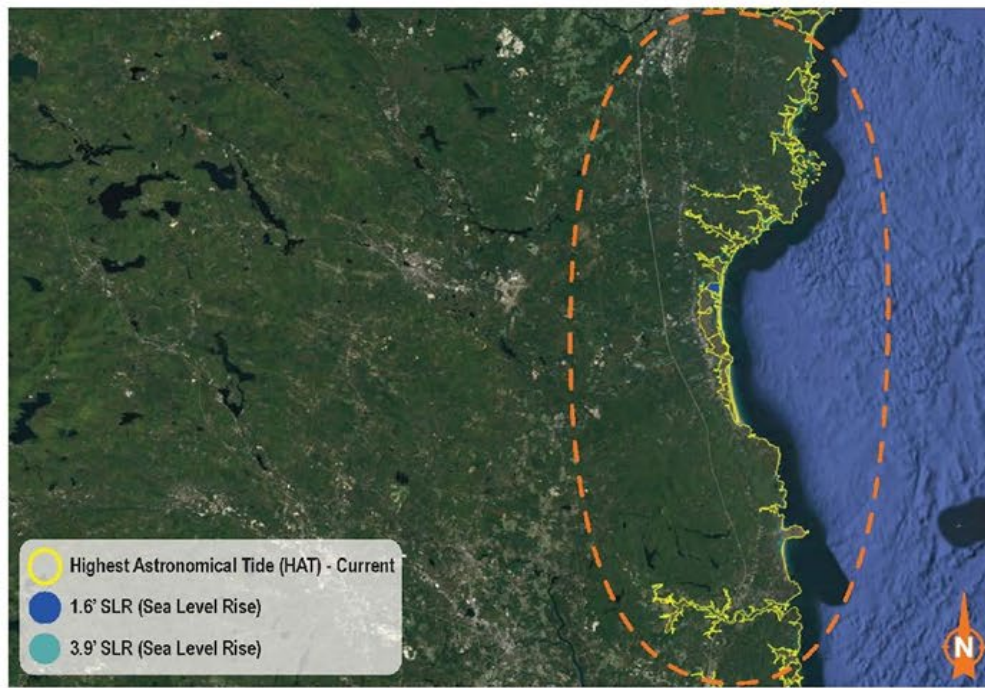
Lead with Listening

A Guidebook For
Community Conversations
On Climate Migration



Potential framework for community conversations

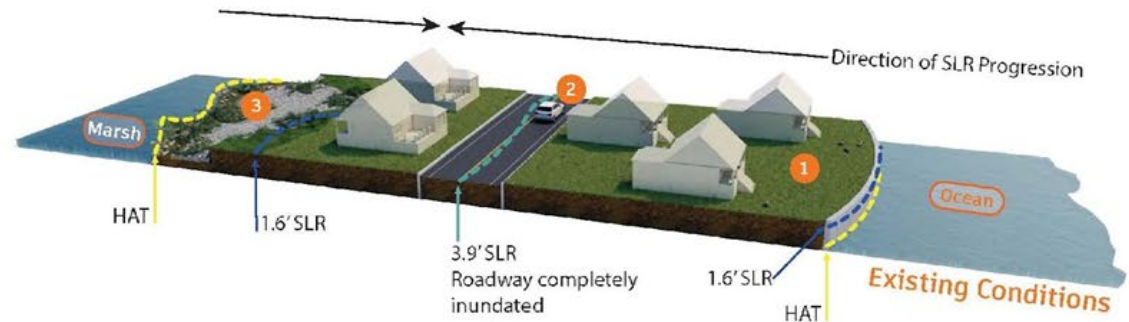
- Review of existing resources
- Adapt existing resources to suit the Maine context
- Conduct research / evaluation on a range of approaches to identify best practices
- Create guidance materials
- Support training / capacity building for community leaders, practitioners, facilitators
- Provide funding to implement community conversation processes



Visualization: Potential Adaptation Strategies for a Climate Ready Coast

Coastal Areas (Southern Maine)

Note: These conceptual visualizations are illustrative examples of possible coastal adaptation strategies; they are not engineered designs and are not conveying strategies that should be used at the site. Strategies shown are only a potential set of possible adaptation measures, other strategies from the Coastal Adaptation Strategy Matrix could be applicable and may be included in visualizations of other priority sites. Please reference the Matrix and other priority site visualizations for further information. Please note that the sea level rise conditions depicted in these visualizations reflect changes that will happen over time.



Managed Retreat

- Relocation of high-risk development to upland areas
- Prevents repeated property damage and loss
- Mitigates risk to people, property, and the local tax base
- Saves money
- Removal of impervious areas
- Increases wildlife habitat
- Improves water quality
- Lessens effects of sea level rise and storm surge
- Creates new public coastal access and recreation opportunities

Salt Marsh Restoration

- Protects against erosion and flooding
- Improves water quality
- Provides wildlife habitat



Dune Restoration

- Prevents erosion and reduces flooding
- Acts as buffer for storm surge
- Provides wildlife habitat

Climate Resilience Regional Challenge Track One Proposal: Northeast Collaborative for Coastal Resilience

P.I. / Lead Institution: Dave
Reidmiller, Gulf of Maine
Research Institute

THE NORTHEAST COLLABORATIVE FOR COASTAL RESILIENCE: *Responsive, Supportive & Enabling Activities*

Build a Regional Collaborative for Transformative Coastal Adaptation

- 1 Identify and convene the Collaborative
- 2 Facilitate sustained community of practice for learning
- 3 Deliver trainings to build capacity to hold difficult conversations

Create Evidence Base to Support Coastal Transformation

- 1 Compile flood risk information → Technical report
- 2 Assess housing, land use, and fiscal barriers → Technical report
- 3 Analyze archetypal case studies → White paper

Build Enduring Capacity and Momentum for Implementation

- 1 Co-develop governance and reform strategies → White paper
- 2 Two-way communication among Collaborative, other partners, and external audiences to foster transparency & trust-building
- 3 Evaluate project → White paper
- 4 Sustain shared learning through individual and institutional capacity building

**Thanks so much,
and please feel free
to reach out.**

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