



# Planned Relocation & the Flood Adaptation Toolbox

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# The Nature Conservancy in Massachusetts

## What we're working on

- Climate Change
- Healthy Ocean and Coasts
- Healthy Rivers and Lands
- Equity in Conservation

## How we work

### Catalyze

- Developing breakthrough tools and ideas to find new paths for funding
- Championing reforms in policy for implementation of clean energy
- Taking action in the state and around the globe to reduce carbon emissions

### Convene

- Partnering with communities to reduce flood risk and restore watersheds

### Conserve

- Supporting ocean and coastal health alongside the aquaculture and fishing industries







Image: MyCoast ([Nantucket](#), September 2024)





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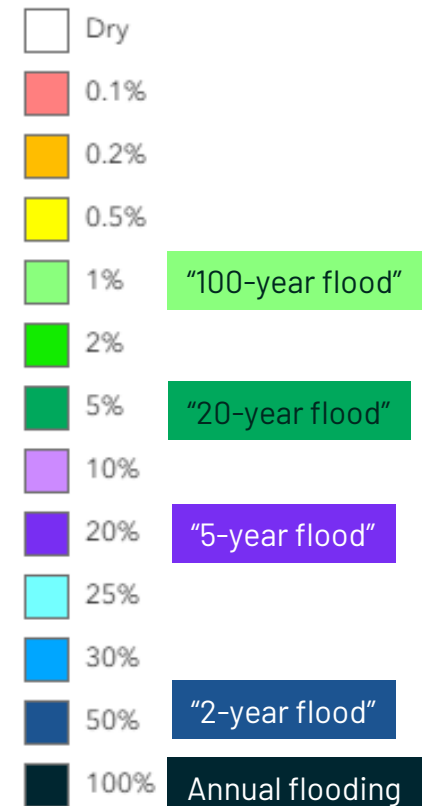
Image: MyCoast ([Nantucket](#),  
January 2024)



# Annual Chance of Flooding (2030)

**“Coastal flood exceedance probabilities”** show how likely an area is to face flooding each year, ranging from 0 (dry) to 100% - an area is likely to flood every year.

All maps & data from [MA CZM Sea Level Rise & Coastal Flooding Online Viewer](#)

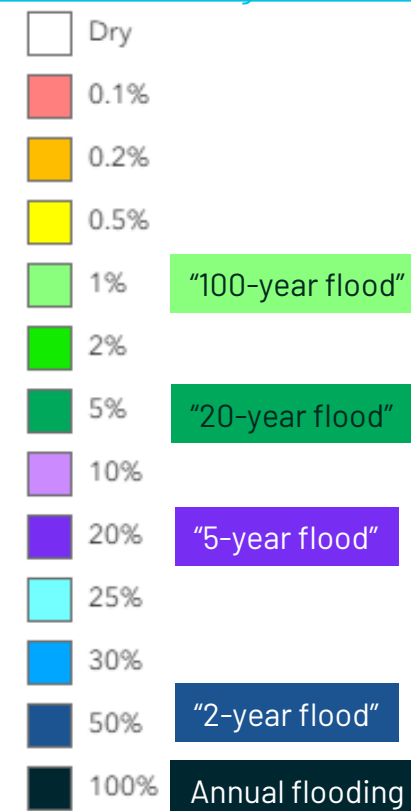


# Annual Chance of Flooding (2070)



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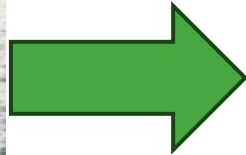




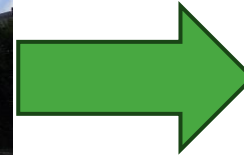
# The Status Quo for Flood Adaptation:



**DEFEND** against water



**ACCOMMODATE** water



**RETREAT** from water

**AVOID**  
building in  
floodplains





# A Better Way: The Flood Adaptation Toolbox

MAKE SPACE FOR WATER

## WHERE WE NEED TO BE

### Natural buffer

Protect existing and future natural coastlines and floodplains.

### Eliminate risk

Employ managed retreat of people and infrastructure to appropriate receiving areas and restore nature; complete removal and relocation (if needed) of infrastructure from the floodplain.

### Passive risk reduction

Implement passive management techniques such as infrastructure redesign and renovation that manage for temporary periods of inundation; elevate structures and utilities, restore and/or expand buffer areas, etc.

### Active risk reduction

Temporarily remove infrastructure during forecasted periods of inundation.

### Nature-based risk reduction

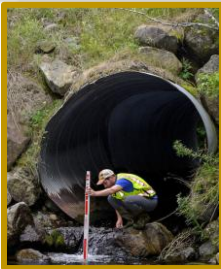
Emulate appropriate natural features to form protective buffers around systems.

### Harden

Build walls and other approaches to defend systems in place relative to design specifications.

FIGHT AGAINST WATER

## WHERE WE ARE



Engineered nature-based shoreline. © SERC





# What is Managed Retreat?

*Eliminating* flood risk by helping people, homes, and infrastructure move out of high flood risk areas.

- Voluntary Buyouts
- Moving structures
- Real estate levers – zoning, easements
- Protect & restore post-retreat
- Politically & financially challenging
- Challenges: equity, logistics, structures
- Necessary, an opportunity to reimagine our relationship to the coast



*“Managed retreat” is not a great term but it’s the most used as of now. It’s also referred to as community-driven relocation, climate migration, and more.*



# The Flood Adaptation Portfolio

## Phased Planning Approach (Hypothetical)

Adaptation Tool	Now	Next	Long-Term
Sandbags	Risk Reduction		
Temporary storm barriers			
Living shorelines	Planning	Implementation	
Upgrade culverts Elevate some homes & infrastructure			
Voluntary buyouts & post-relocation restoration			



# Our Choice: Managed or Unmanaged

## Unmanaged, Unsupported, Unplanned

- Current Trajectory
- Loss of community character
- Vacant & abandoned properties
- Exacerbated inequity
- Losses for individuals and community
- Reactive responses miss opportunities

## Managed, Supported, Planned, & Proactive

- Work together to manage shared risk
- Future-oriented: work toward a community vision
- Action, not reaction: prepare & plan during times of calm not crisis
- Prevent/reduce losses & sudden displacements
- Minimized social, economic, and environmental costs



**Proactive relocation is a nature-based solution which can make space for dynamic, accessible, connected natural coastlines that are an asset to their communities.**







**Proactive planning supports and reinforces  
social, financial, and community resilience**



**Relocation planning is HARD. To do it well, we need to work differently than we have in the past.**

**We can do this best together.**





# Proactive Planning for Collaborative, Equitable Retreat & Relocation in Massachusetts

## Peer Learning Network

Network Meetings & Workshops

**Build professional networks so more people are prepared to work towards proactive relocation planning**

<https://groups.google.com/g/coastal-relocation-network>

## Knowledge Hub

Literature Review & Data gaps analysis

**Make it easier for people to access the information they need to make good decisions, communicate clearly, and take action to reduce coastal flood hazards**

## Community Engagement

Outreach & engagement events  
Community perspectives report

**Amplify the voices and priorities of folks facing extreme flooding in Massachusetts.**



# First Annual Proactive Coastal Relocation Workshop – Last week!





# Managed Retreat Knowledge Hub

Supporting informed, proactive, and equitable decisions

## Core Topics:

Types of  
Retreat

Legal &  
Governance  
Frameworks

Post-retreat  
Land Use

Economic  
Considerations

Climate and  
environmental  
justice

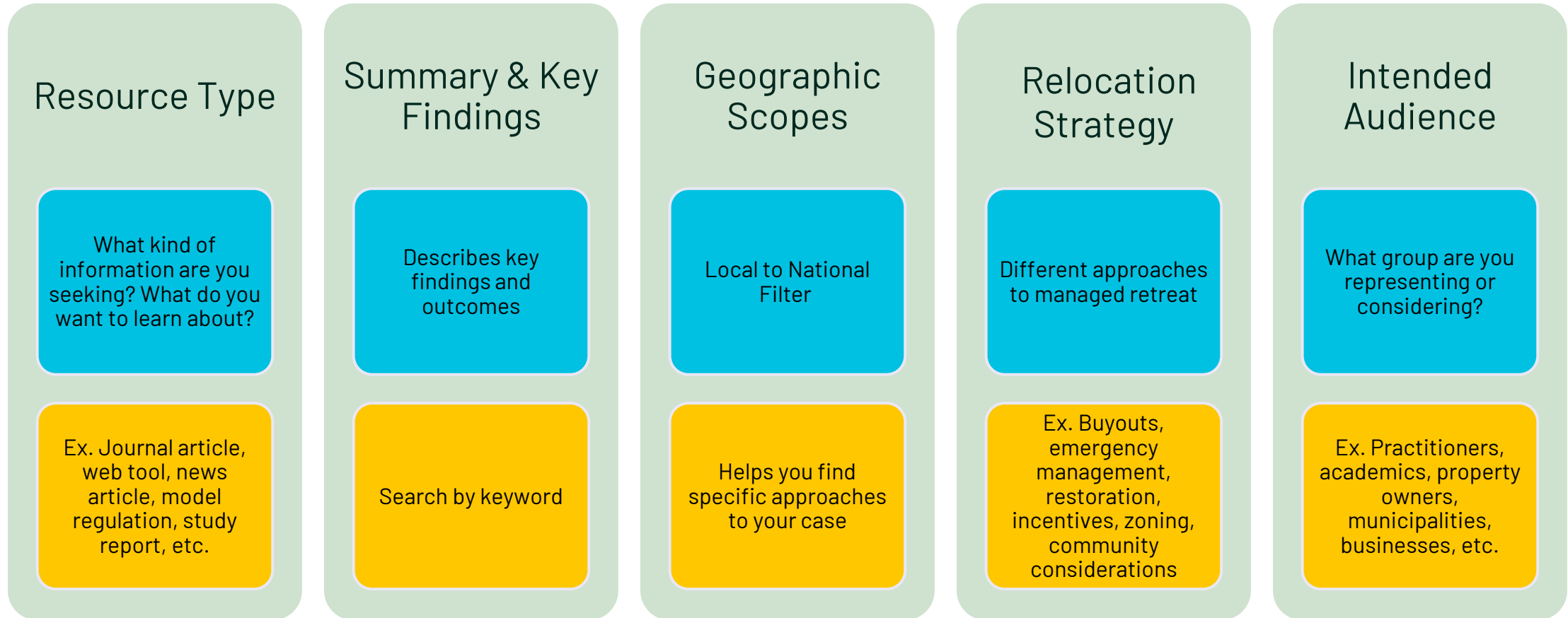
Proactive  
Planning  
Strategies



# Managed Retreat Knowledge Hub

Supporting informed, proactive, and equitable decisions

## Ways to Explore the Database





# Managed Retreat Knowledge Hub: SOFT LAUNCH & OFFICE HOURS

**June 25, 11 am - noon**

**Join us to discuss and learn about resources and information available to help you understand and plan for managed retreat tools and strategies.**

Our knowledge hub project team leader, Andrew Laquerre, will be hosting a presentation and walk through of our draft resource database. Be one of the first to experience the database, test it out for your own purposes, and provide feedback to our team as we prepare to transition the product into a publicly accessible tool!



**Register Here!**

**<https://tnc.zoom.us/meeting/register/fd1op6fST9qnK2i30fkWwA>**



# Let's talk!

Reach out to me at  
[Emma.Gildesgame@tnc.org](mailto:Emma.Gildesgame@tnc.org)

Join the Proactive Coastal  
Relocation Network



[https://groups.google.com/g/  
coastal-relocation-network](https://groups.google.com/g/coastal-relocation-network)

