



New York - New Jersey
Harbor & Estuary Program
www.harborestuary.org

A Protocol to Assess the Habitat Value of Shorelines in the Harbor Estuary – Phase I results and next steps

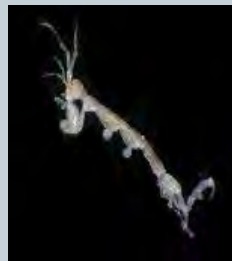
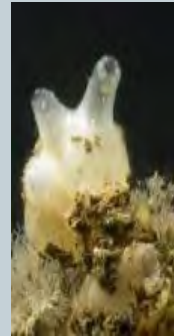
Objective: a repeatable means of comparison between shoreline stabilization methods in an urban estuary

- Repeatable and safe
- Relatively easy and inexpensive
- Standard comparison across a range of urban conditions



Urban shoreline assessment: basic design

- Water quality
- Encrusting algae
- Sessile invertebrates
- Mobile invertebrates
- Bivalves
- Fish
- Photoquadrats
- Abiotic conditions



Shorelines surveyed



West Harlem Piers (3)

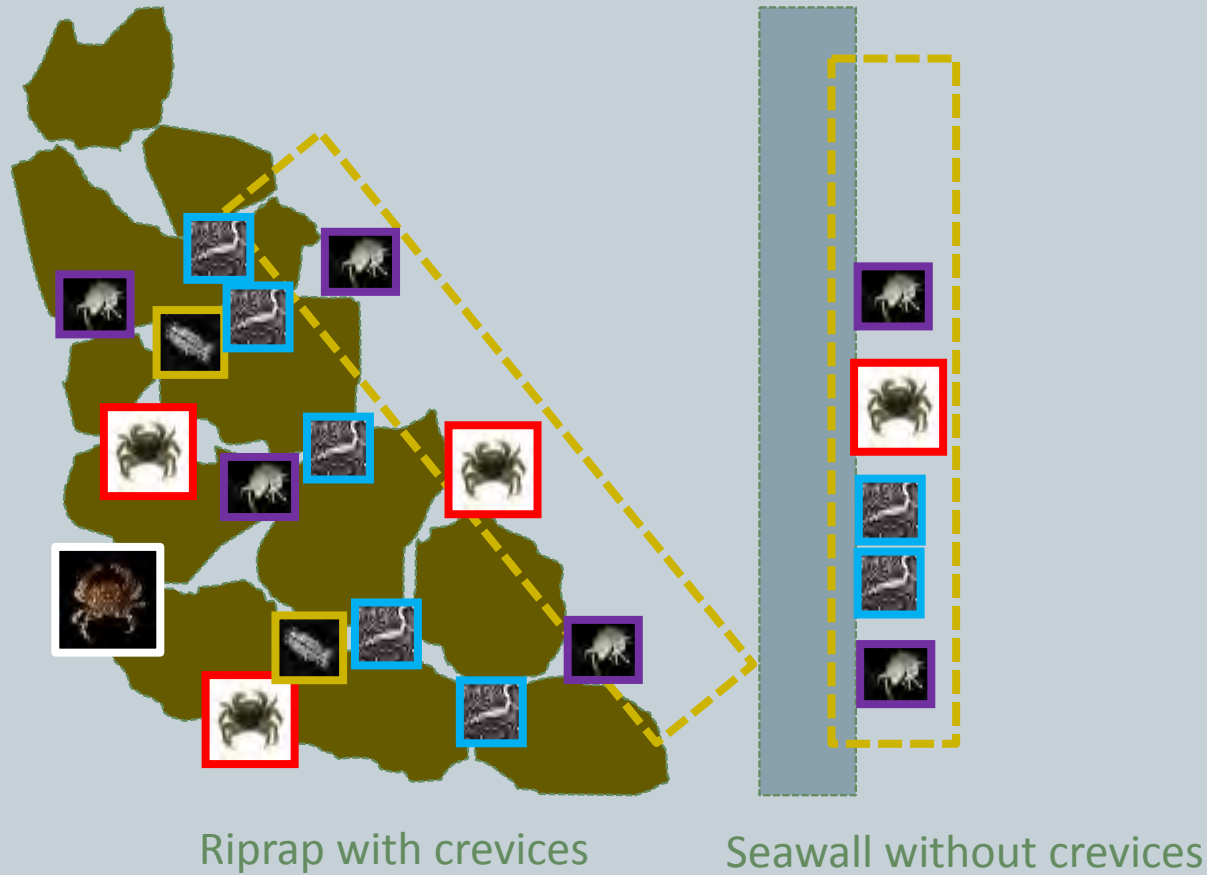


Harlem River Park (1)



Randalls Island (2)

Urban shoreline assessment: challenges



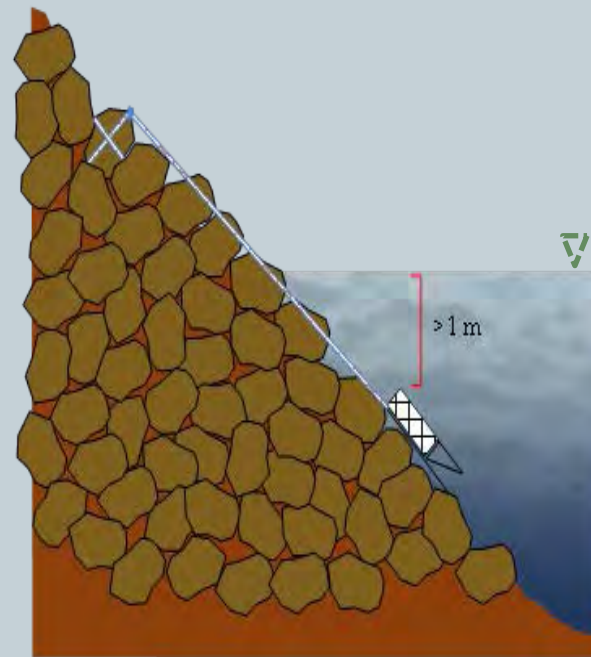
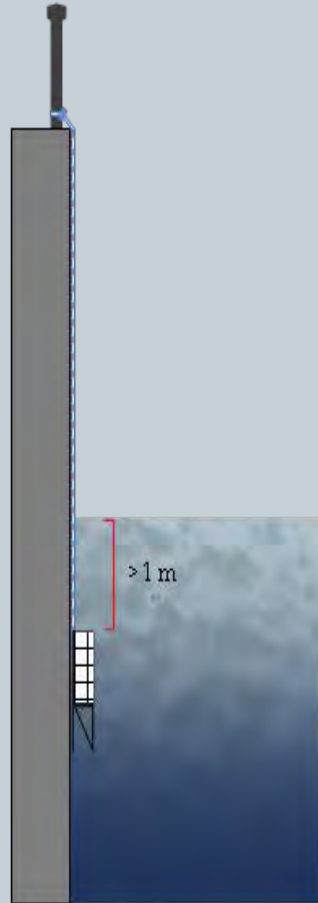
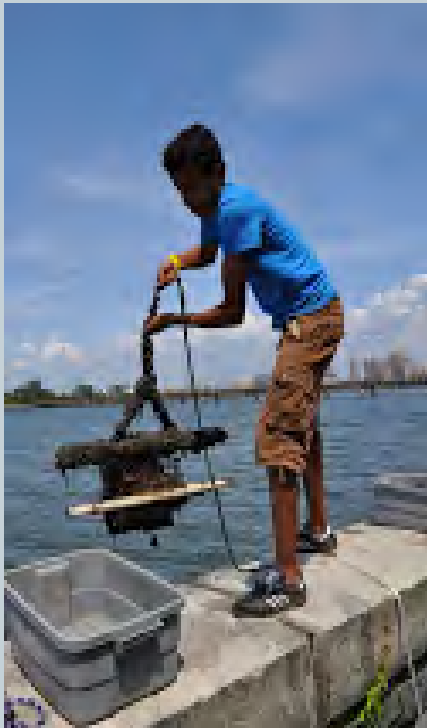
Urban shoreline assessment: invertebrate colonization device



- Standard surface area and submergence duration
- Steel crab trap
- Enclosed netting and brick - microhabitats
- Settlement plates for sessile invertebrates
- PVC piping to stabilize device

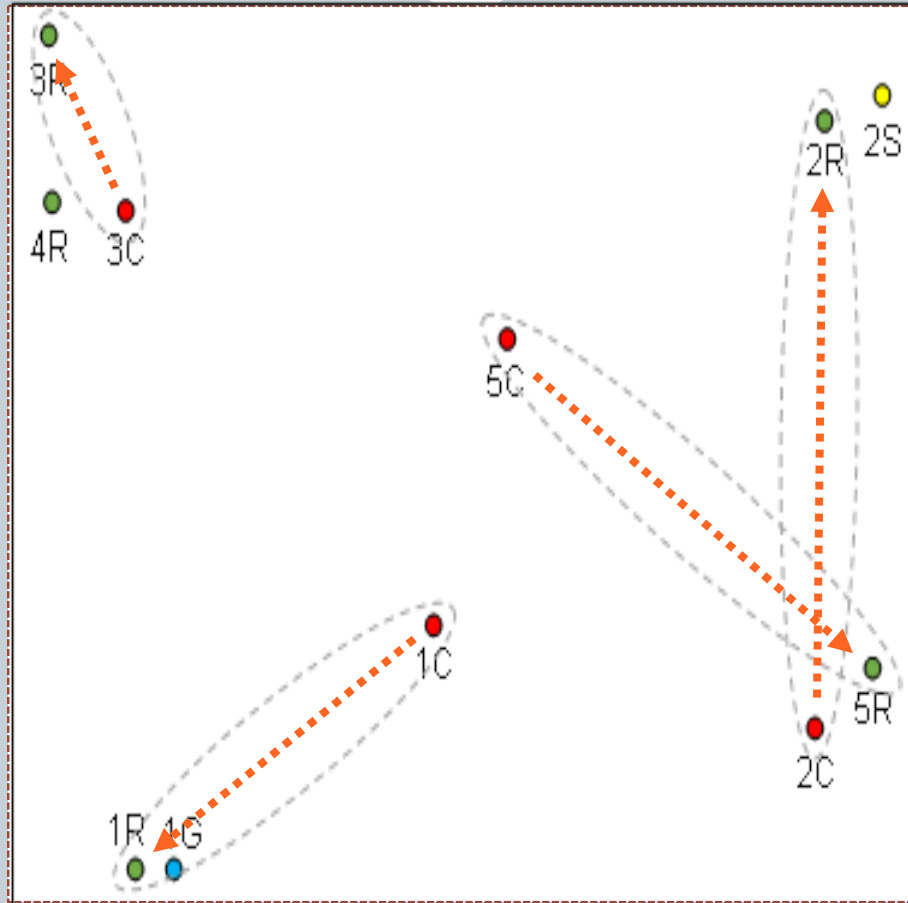


Deployment



▽ Water level at low spring tide

Preliminary data: mobile invertebrates



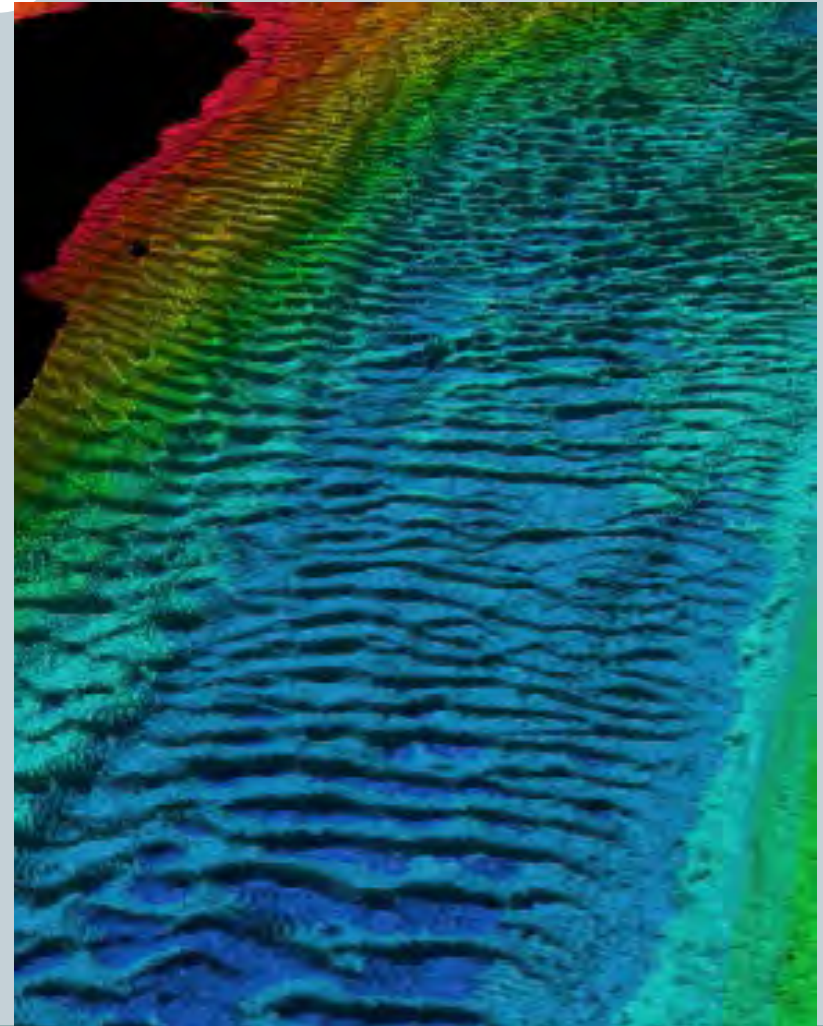
- Boulder
- riprap
- Concrete seawall (control)
- Gabion



Stress = 0.09, based on Bray-Curtis dissimilarity matrix of untransformed mobile invertebrate community data

Next steps...

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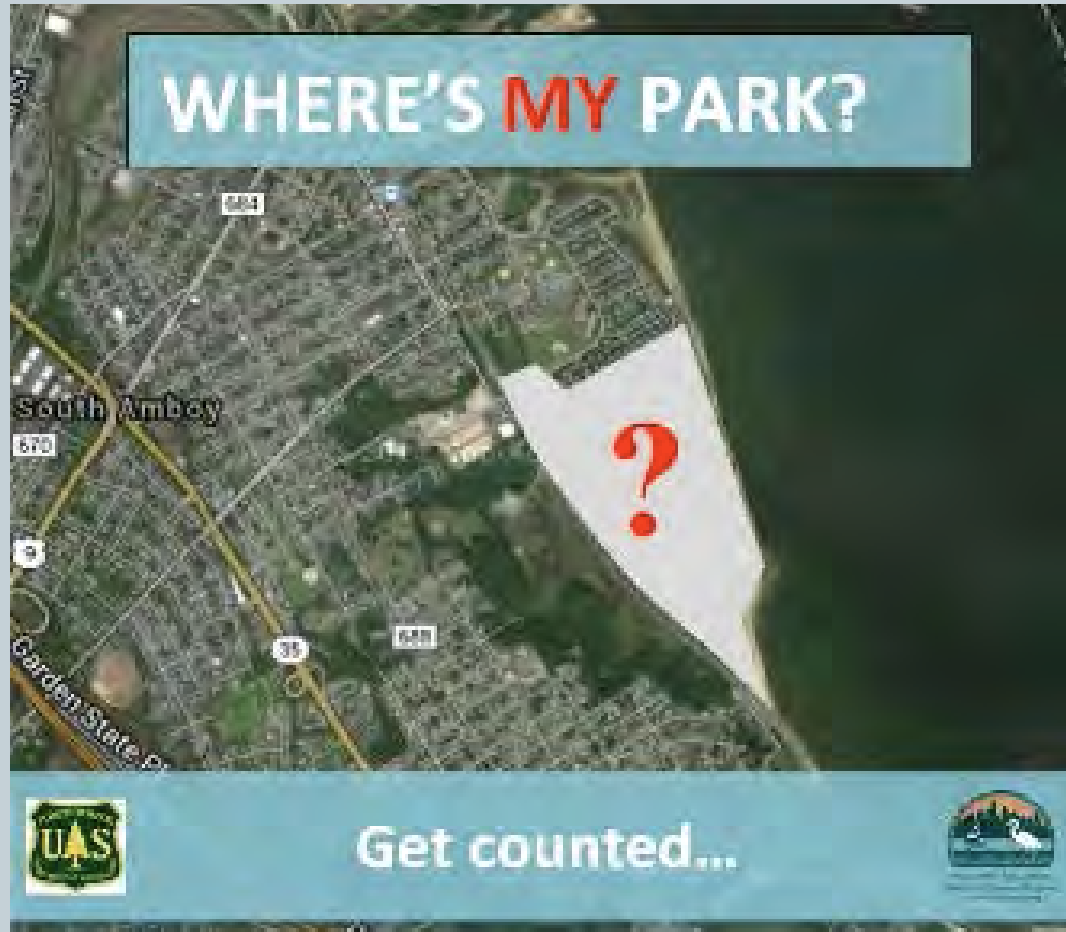
< 1 mm



≤ 1mm

Public Access Assessment 2015

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Public Access Assessment: objectives

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- Understand current access and stewardship capacity; target resources toward need.
- Document progress toward goals.
- Provide public information about access and stewardship.



Where is public access and what does it look like?

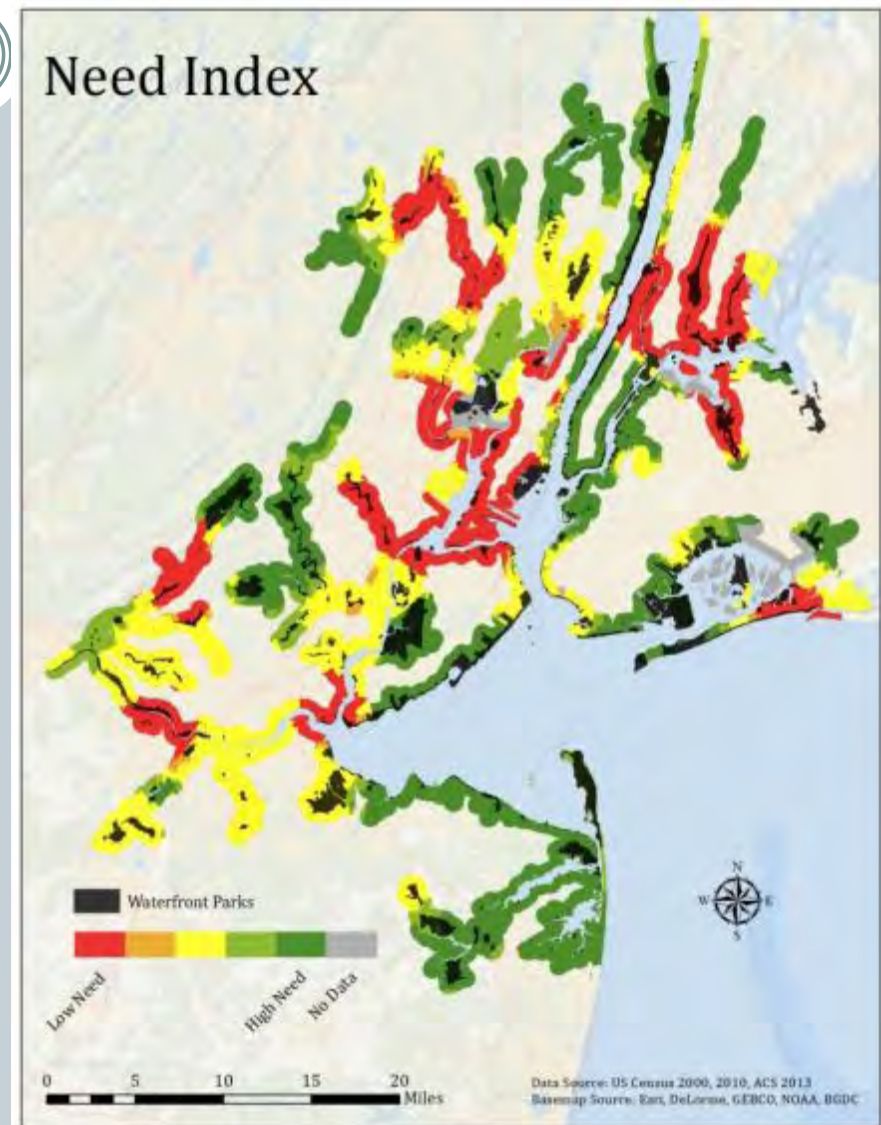
- 6.8 million people live within .5 miles of the coastline
- 41,070 acres of public access
- 63% accessible
- 37% inaccessible (2% homeland security zones)

Types of Waterfront Spaces of the New York-New Jersey Harbor Estuary



Where is access most needed?

- 12 high need reaches
- 55% persons of color
- 35% youth (under 14)
- 3% population growth
- \$67,766 median household income



Reach analysis



Reach	Population	Communities of color (%)	Median household income	Youth population (%)	Growth (%)
Harbor-wide					
Bronx					
North Manhattan/Harlem River					
Flushing Bay and Creek					
Rockaway East					
Upper Passaic					
Lower Passaic/Newark Bay/Bayonne					
Lower Hackensack					
Elizabeth River/Arthur Kill (NJ)					
Kill Van Kull/Staten Island North Shore					
Raritan River Mouth/Upper Raritan Bay					
Mid-Raritan					
Bound Brook					

Coming soon!

Reach analysis



Reach	Linear accessibility (% of total)	Density of people to accessible waterfront acres	Acres of public access
Harbor-wide			
Bronx			
North Manhattan/Harlem River			
Flushing Bay and Creek			
Rockaway East			
Upper Passaic			
Lower Passaic/Newark Bay/Bayonne			
Lower Hackensack			
Elizabeth River/Arthur Kill (NJ)			
Kill Van Kull/Staten Island North Shore			
Raritan River Mouth/Upper Raritan Bay			
Mid-Raritan			
Bound Brook			

Coming soon!



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ACTION AGENDA / CCMP REVISION

PROPOSED SCOPE AND TIMELINE

Objectives

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- **Conduct a series of public listening sessions** to ensure stakeholder input for the 2016-2020 Action Agenda as well as the scope of the CCMP revision.
- **Prepare a broad, risk-based climate change vulnerability assessment** of HEP's current and potential future goals.
- **Identify various financial options** for the implementation of the Action Agenda priorities.
- **Produce the 2016-2020 Action Agenda** identifying HEP priorities for the next five years, including the **scope and purpose of the CCMP revision and next State of Estuary report.**



Key Roles and Responsibilities

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Policy & Management Committees

- Guide Effort
- Approve Scope of Work, Draft and Final Documents
- MC Members Lead Work Groups

Citizens Advisory Committee

- Members Convene 15 -20 Place Based Listening Sessions
- Broad agenda around clean water benefits / vulnerability to climate change
- Meetings are oriented toward watersheds or reaches
- Builds on existing meetings

Work Groups

- Convene five by-invitation forums
- Water quality, restoration, public access, sediment, education
- Builds on existing groups/projects

Science & Technical Advisory Committee

- Network is part of work groups
- Special meetings to refine scope of State of the Estuary and CCMP
- Effort ties to HRF 2017 Call for Proposals

Outputs

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Action Agenda Outline

- Mission Statement/Intro
- Overall Climate Vulnerability
- Overall CCMP Scope
- Goals/Priority Actions
 - Water Quality
 - Habitat Restoration
 - Public Access
 - Sediment/Port
 - Public Education
- Finance strategy

CCMP Revision Outline (per EPA)

- Changes between existing and draft CCMP
- State of the Estuary
- HEP's program structure
- CCMP Actions:
 - Stated goals/problems,
 - Probable causes and sources
 - Measurable objectives
 - Monitoring approach
- Finance strategy
- Public Review Process



Timeline



DRAFT Timeline for Action Agenda/CCMP Revision

Task / Milestones	Oct 15	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16	Nov 16	Dec 16	Jan 17	Feb 17	Mar 17	Apr 17	May 17	Jun 17	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17
Management Committee Meetings																										
Policy Committee Meetings																										
STAC Meetings																										
CAC Meetings																										
Launch of HEP / HRF Website																										
Climate Vulnerability Report																										
Listening Sessions (Public by Waterbody)																										
Technical Forums (By Current HEP Goal)																										
2016 Restoration Conference																										
Draft / Final 2016 -2020 Action Agenda																										
Scope of CCMP																										
State of the Estuary 2017																										
2017 State of the Estuary Conference																										
Initial Draft CCMP																										
CCMP Comment*																										
Final CCMP* (due 9/2018)																										



Questions for the RWG

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Focus

- What Are Key Questions Relative to Current or Prospective HEP Goals/**What Will be The Drivers For This Process?**
- What Are Key Questions/Drivers Related to Climate Vulnerability?
- What Are Key Questions/Drivers Related to Financing?

Process

- Connection to CRP Adoption
- Integration with Restoration Conference/RWG Agenda