Identifying and Prioritizing Restoration Opportunities for Coastal Aquatic Habitats in the Mass Bays Region

Stakeholder Workshops
10/2/2012 Gloucester, MA
10/18/2012 Plymouth, MA

Jillian Weber Carr
Mark Rousseau

MarineFisheries Habitat Program

Identifying and Prioritizing Restoration Opportunities for Coastal Aquatic Habitats in the Mass Bays Region

- **Welcome**
- **Introductions**
- **Project Background**
  - Mass Bays Program Research and Planning Grant
  - Two important questions:

    Task 1: Are there significant information gaps within the Mass Bays region that need to be identified when developing coastal restoration priority lists?

    Task 2: How can we develop a sustainable methodology for assessing priority restoration sites on a larger, regional scale?

Identifying and Prioritizing Restoration Opportunities for Coastal Aquatic Habitats in the Mass Bays Region

TASK 1

- **Approach: Compiling existing restoration priority lists**
  - Contact over 40 relevant state agencies, watershed groups, and grassroots organizations
  - Organize restoration opportunities into 5 habitat categories
  - Compile data into a series of excel matrices
  - Map data using GIS to visualize gaps by region and habitat type

- **Extension work**
  - Analyze the last 3 years of MA *MarineFisheries* Environmental Review data

- **Hurdles & Issues**
  - Making the right contacts
  - Categorizing projects into communities and habitat types
  - Understanding the limits of the data
  - Project size, cost, current status, etc not considered

- **Results & Discussion**

Example matrix used to manage project data

SALT MARSH PRIORITY RESTORATION PROJECT DESCRIPTIONS

Amesbury	Salisbury	Newburypo	Newbury	Rowley	Ipwsich	Essex	Rockport	Gloucester	Mancheste	Beverly	Danvers	Peabody	Salem	Marblehea	Lynn	Swampcot	Saugus	Nahant
	Town Cree	Invasive Sp	North Pool	Red Gate I	Castle Hill	Railroad Bed Culvert:		Mill River 2	Chubb	Thissell Ma	Danvers		Planting salt marsh grass where appropriate (				Ballard Street: The 32	
	Ferry Road culvert: Th		Stilts Pond	Mosquito C	Robinsons	Choat Island Road: Si		Good Harbor Beach a		Thissell Bre	MG Hospital: Mass gen		Removal of restrictive structures, where approp				Rumney Marsh: The gra	
	Star of Sea Church fill		Boston Ro	Invasive Sp	Jeffreys Ne	Castle Neck: Site con		Witham St: Site cons		Porter River fringing salt marshes			Forest River near Salem Woods: tidal restriction at Loring Ave. also nea					
	Beach Road 1: This s		Hay St: Si	Great Mars	Labor in Va	Lufkin Street: Site con		Page Potter Marsh: Owned by the Essex County Green					"Coy" Pond: has salt marsh habitat...potential for invasives removal effo					
	Beach Road 2: Locate		Riverfront Rd: Site is c		Clark Pond	Site 421: site consists		Causeway St: Site consists of ~2.8 acres of salt marsh north of Route 128 and south of Causeway Street. The 2004 Glouc										
	Northern Blvd: This sit		Invasive Species cont		Muddy Run	Great Marsh, general p		Gloucester WTP: Site consists of ~22 acres of salt marsh surrounding the Gloucester wastewater treatment plant south of										
	Salisbury Beach Rd: T		Great Marsh, general p		Ipswich Railroad: Site consists o			Glo High School: Site consists of ~0.5 acres of historically-altered salt marsh on Gloucester High School property, south c										
			Newman Road: remov		Upper Castle Neck: The Castle N			DPW: Site consists of ~1.5 acres of historically-filled salt marsh along the western edge of the City of Gloucester DPW an										
	Black Rock Beach: This site is adjacent to t				Hamlin reservation invasive peppe			Annisquam: Site consists of ~2 acres of historically-filled salt marsh abutting the east bank of the Annisquam River just no										
	DFW: Under ownership of the state Departm				Cedar Point culvert replacement @			Mill River @ O'maley site Q2/42: Invasive plant species management, trash removal, open marsh water management (GRS										
	Site 340: Site appears to be historically-filled				Great Marsh, general phrahmites c			Mill River Trib @ Poplar St site Q2/47: Invasive plant species management, stormwater best management practices (GRSI										
	Hayes St: Site consists of an area of marsh south of Hayes Street where an a							Jones/Annisquam @ Atlantic St site Q1/45: fill removal, invasive plant species management (GRSHRR);										
	Atlantic Breeze: This site is part of a development project, Atlantic Breeze Co							Annisquam @ Ye Old Country Rd site Q1/64: invasive plant species management, culvert upgrade (GRSHRR);										
	Invasive Species control in northern GM (8TB, pers. comm.)							Mill River @ Poplar St site Q2/48: fill removal, stormwater best management practices, daylighting (GRSHRR);										
								Annisquam @ Periwinkle Way site Q2/59: fill removal (GRSHRR)										
								Mill River @ Washington St site Q2/43: culvert upgrade (GRSHRR);										
								Mill River @ O'maley site Q2/44: Fill removal, stormwater BMP (GRSHRR);										
								Mill River @ Osman site Q2/45: fill removal, invasive plant species management (GRSHRR)										
								Mill River @ Osman site Q2/46: Invasive plant species management, fill removal, trash removal (GRSHRR)										
								Blynman Canal @ High School site Q3/3: fill removal (GRSHRR);										
								Blynman Canal @ High School site Q3/11:Invasive plant species management, culvert upgrade, daylighting (GRSHRR);										
								Saratoga Creek @ Atlantic Ave site Q3/14: culvert upgrade, buffer enhancement, fill removal, invasive plant species manag										
								Good Harbor Beach @ Thatcher Rd site Q3/20: fill removal (GRSHRR)										
								Days Pond @ Abbott Rd site Q3/46: fill removal, culvert upgrade, dam removal (GRSHRR)										
								Saratoga Creek @ Abbott Rd site Q3/28: fill removal (GRSHRR);										
								Blynman Canal @ Essex Ave site Q4/37: culvert upgrade, daylighting (GRSHRR)										
0	13	1	8	4	11	6	0	26	1	3	2	0	4	1	0	0	3	0

Draft

Five key coastal habitat categories and examples of project types identified by MA In Lieu Fee program's Steering Committee

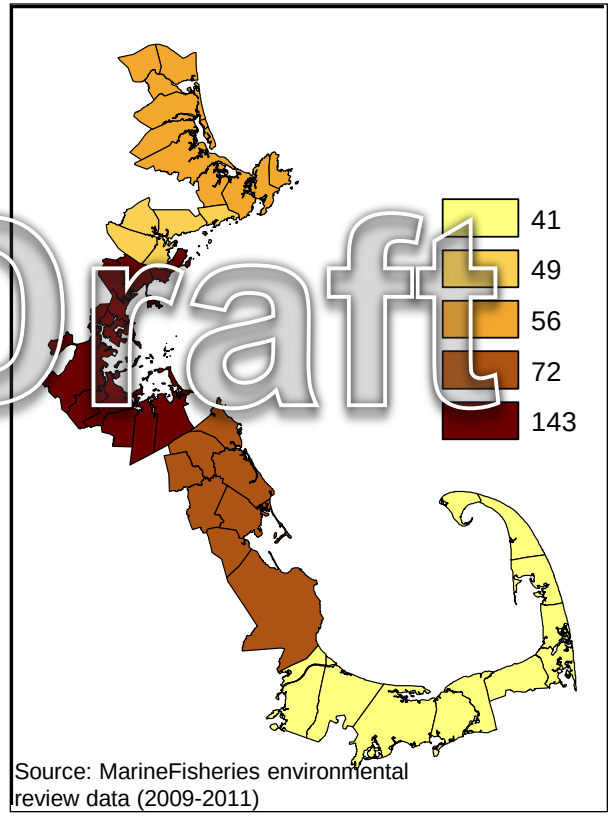
Open Water	Water quality improvement	Salt marsh	Salt marsh restoration
	Sediment remediation		Removal of tidal restrictions
	Marine debris removal		Sediment remediation
	Fish habitat enhancement		Conservation easements
	Coastal fill	Streams	Fish passage (dam removal, ladders)
	Shellfish restoration		Water level management
SAV	Eelgrass planting		Water quality improvements
	Modification of mooring hardware	Intertidal	Marine debris removal
			Shellfish restoration

Identifying and Prioritizing Restoration Opportunities for Coastal Aquatic Habitats in the Mass Bays Region

Task 1: Results

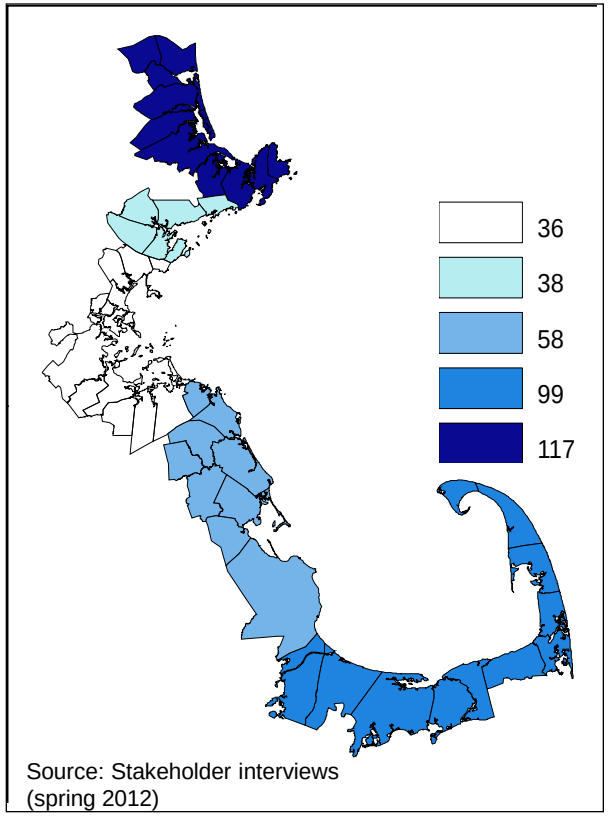
Massachusetts Bays Program Regions

Number of Coastal Alteration Projects by MBP Region



Source: MarineFisheries environmental review data (2009-2011)

Number of Potential Restoration Projects by MBP Region

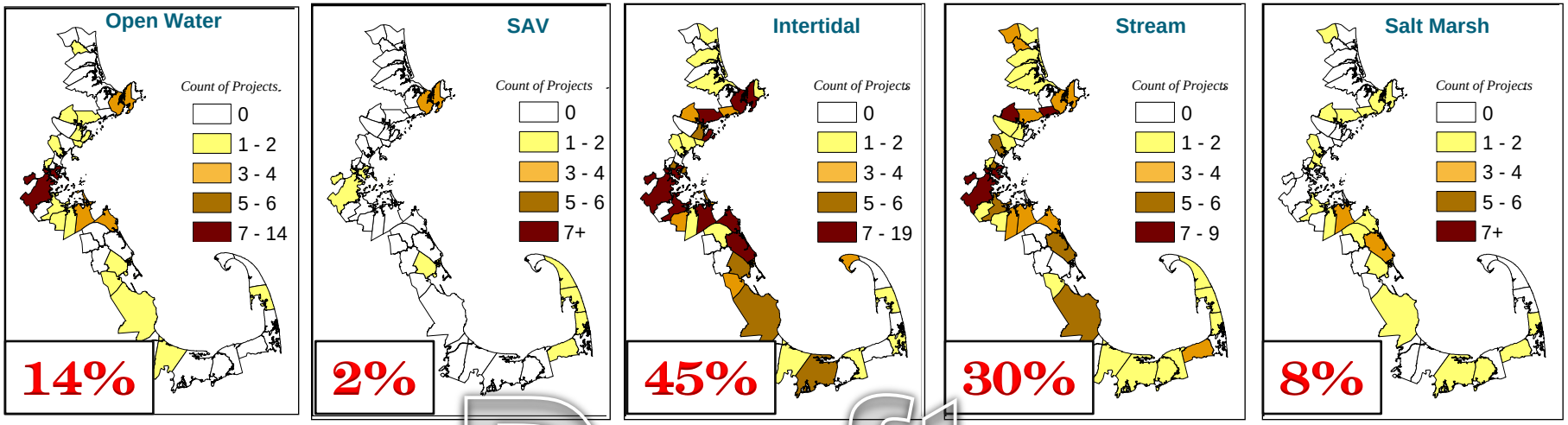


Source: Stakeholder interviews (spring 2012)

MarineFisheries
Commonwealth of Massachusetts

Number of Coastal Alteration Projects by Habitat Type per Town, 2009-2011

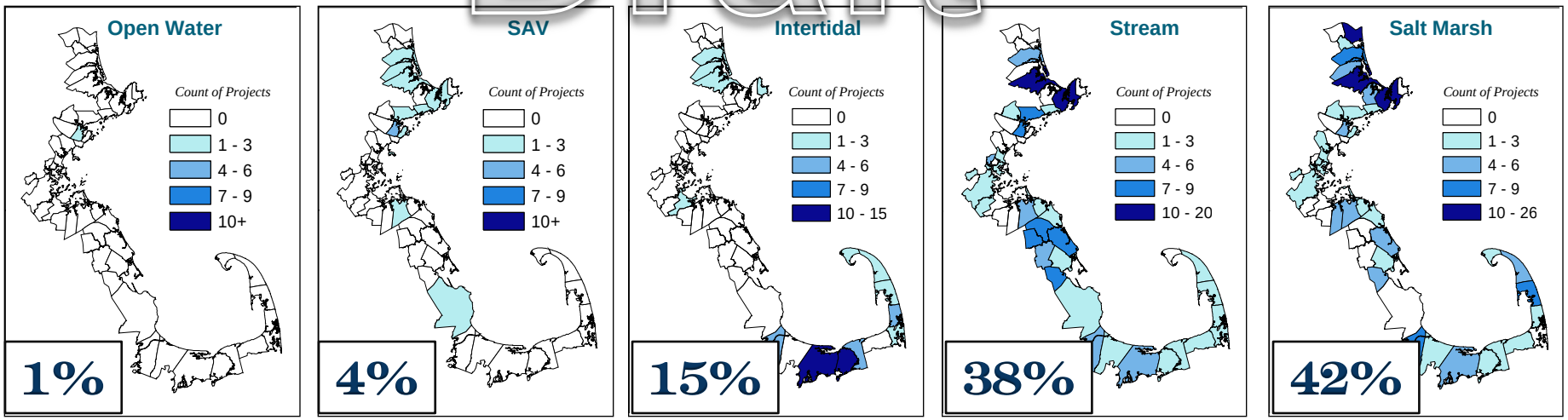
(Source: MarineFisheries Environmental Review data)



Draft

Number of Potential Priority Restoration Projects by Habitat Type per Town

(Source: stakeholder interviews, spring 2012)



Task 1: Group Discussion Topics

General Questions – project background, methods, etc

Finding and Explaining the Gaps

- Are any key players missing from our inventory (refer to contact list)?
- What are possible reasons for restoration priority gaps by community?
- What are possible reasons for restoration priority gaps by habitat?
- Are gaps real or artifacts of information we missed?
- Submit comments/additions via email or phone (2 weeks)

Making it Useful

- How can this work be beneficial to resource managers?

TASK 2

- **Approach: Developing a ranking methodology**
  - Compiled existing literature and project ranking methods from stakeholders
  - Pared down to a 3-page worksheet

- **Hurdles & Issues**
  - Difficult to keep the compilation brief while still covering the important parameters
  - "Apples to oranges" dilemma: many different ranking methods to use, but may be biased depending on what habitat functions the organization is hoping to restore, their funding source, community support, etc.

- **Results & Discussion**

DRAFT ILF HABITAT RESTORATION PROJECT SCORING SHEET

Review Date _____
Project Reviewer _____
Total Score _____
Recommended for Funding (y/n) _____

Project Name _____
Project Status (New/Ongoing) _____
Amount requested _____
Proponent _____
Communities (list all) _____
Address or landmark _____

Note to reviewers: Please complete all portions of this project evaluation form. Three suggested scoring scales are offered in the table below, and can be selected as appropriate when using this method to meet the needs of the scoring committees. Scoring committees should discuss and assign scoring categories and multipliers for each section of this form prior to use.

In the *Ecosystem Function* section, assign points for all relevant habitat types. It is the applicant's responsibility to explain ecological benefits to any/all habitat types, so if benefits to secondary habitats are not clear, score the project based on the primary habitat. Habitat types used in this scoring methodology are based on the five key priority habitats identified by the Massachusetts In Lieu Fee (ILF) Program Steering Committee. However, this methodology can be adapted to include other coastal and marine habitat types as needed.

Draft

Optional Scoring Guidelines			
"Scale 1"	"Scale 2"	"Y/N" Scale	Score
None	N/A	No	0
Low	Unsatisfactory		1
Low/Med	Satisfactory		2
Medium	Good		3
Med/High	Very Good		4
High	Excellent	Yes	5

Parameter	Scoring Scale Description	Score	Multi plier	Comments
Cost and Relevance				
Total acres restored, all habitat types and buffers	*(fill in; no score applied)*	*N/A*		
Est. cost per acre restored	*(fill in; no score applied)*	*N/A*		
Total project cost (including any match funds)	*(fill in; no score applied)*	*N/A*		
Ratio of acres restored vs. identified acres impacted				
Match funds?				
If yes to match, ratio of match to amount requested				
Is proposed budget reasonable based on projects stated objectives				
Project is an extension / continuation of a current or previously funded project				
Project listed as a restoration priority by a state agency, non-profit, or in a watershed management plan				
Project has received endorsement from local, state, or federal agencies, and from non-profit or other community groups				
Public access is / will be available				
Project information will be publically accessible (website, signage, press releases, etc.)				
Public education				
	SECTION SCORE			

Draft

Parameter	Scoring Scale Description						Score	Multi plier	Comments
Ecosystem Function	Scoring Scale	Open Water	SAV	Inter-tidal	Stream	Salt Marsh			
Primary habitat (identify one) being restored									
Secondary habitats being restored									
Acreage of habitat restored (fill in all)	*no score applied*						*N/A*		
Secondary benefits to surrounding habitats or buffers									
Improvements to water quality (scale by primary)									
Proximity to existing functional habitats									
Benefit to climate change resiliency (water level management, ocean acidification, etc)									
Benefit to protected species or their habitat									
Benefit to comm./rec. species or their habitat									
Management of invasive species (monitoring, controlling)									
						SECTION SCORE			

Draft

Parameter	Scoring Scale Description	Score	Multi plier	Comments
Technical and Scientific Merit				
Project conforms to the objectives of the RFR				
Design is adequate to achieve proposed outcome				
Use of available science, technology, and BMP's				
Permits secured or likely to be obtained within the proposed timeframe				
Proposed Plan achievable within the proposed timeline				
Appropriate site selection process used –evaluation of location including adjacent uses				
Avoidance of conflicting uses				
Long term protection (Conservation easement/ MPA/etc) strategy is proposed				
Qualification of Applicant (experience (CV's) / references)				
An appropriate duration for monitoring by a qualified person is proposed				
There are identified quantifiable parameters that can demonstrate project success				
An appropriate level of project maintenance is proposed				
	SECTION SCORE			
	TOTAL SCORE			

Draft

Task 2: Group Discussion Topics

- Roundtable discussion & review of ranking worksheet
  - Are any important parameters missing?
  - Are rating scales appropriate for each parameter?
    - Where should yes/no vs. sliding scales be used?
  - How should each section be weighted?
  - Should multipliers be used, if so, can they take the place of weighting each section with a percentage?
  - Ideas on how to deal with scoring ratio questions (i.e. acres restored to acres impacted)?
  - Do you see anything that can be condensed or simplified?
- How can this method be improved?
- Is it usable in your organization, why or why not?
- Request for trial runs in your organization

MA In Lieu Fee (ILF) Program

- **RFR now open:**
  - Seeking on-the-ground habitat restoration proposals
  - 5 habitat categories: OW, SAV, stream, intertidal, SM
  - Approx $170K for funding (no restrictions on how much you request)
  - visit Comm-Pass website www.comm-pass.com and search under *solicitations* tab for “ILF”.
  - Closes 10/31/12!

Thank you for participating!