



Mobile Bay NEP Project Implementation Committee
Getting to an Ecosystem Restoration Strategy 2013-2018

Tuesday, November 5, 2013

5 Rivers Delta Resource Center, Blakeley Classrooms





Mobile Bay National Estuary Program Project Implementation Committee

Five Rivers Delta Resource Center – Blakeley Classrooms

Tuesday, November 5, 2013 at 2 p.m.

Agenda

- 1. Call to Order**
- 2. Approval of Minutes: August 8, 2013**
- 3. Review of the process leading up to development of a five-year Ecosystem Restoration Strategy**
- 4. A Draft Ecosystem Restoration Strategy 2013-2018 –vetting goals, objectives, activities timeline, and metrics.**
 - **Data needs:**
 - **Current habitat areas in two-county area – salt marsh and dune habitat**
 - **Inventory of publically-owned shorelines on bays, backwaters, and intertidal waterways.**
 - **Other**
 - **Guidance for Reporting Watershed Improvement under Measure SP-12 – from EPA Region IV, Gary Davis/Bob Howard**
- 5. New Business**
- 7. Adjourn**

Getting to an Ecosystem Strategy 2013-2018

Process Timeline

- **Summer, 2011** – MBNEP conducts Community Attitudes Assessment via phone survey and through series of public meetings. Primary area of concern: **Environmental health**. Issue areas most valued by coastal community: **Access to Water/Open Spaces, Beaches & Shorelines, Environmental Health, Fish & Wildlife, Heritage & Culture, and Water Quality**.
- **January, 2012** – Volkert Team along with guest reviewers complete an evaluation of 2002 CCMP Implementation Evaluation
- **April, 2012** – Science Advisory Committee completes determination of which ecosystem services provided by ten coastal habitats are under the most stress by a suite of identified stressors. Results:
 - **Freshwater wetlands**
 - **Intertidal marshes and flats**
 - **Streams, rivers, and associated riparian areas**

Process Timeline (cont.)

- **August, 2012** – MBNEP Project Implementation Committee begins concerted effort toward developing a five-year Ecosystem Strategy for next CCMP.
- **November 29, 2012 – Coastal Planning Summit** Over 90 area resources management personnel, researchers, academics, and community and industry leaders convened on six separate teams (based upon Issue Area/Value and led by recognized experts) to recommend actions and strategies to address under each value/issue areas. Their recommendations were “distilled” and published in *Respect the Connect*, a draft CCMP document “rolled out” at a December 17, 2012 reception at the 5 Rivers Center.
- **February, 2013** – At a PIC meeting with public participation, 24 “priority watersheds/12-digit HUCs” (selected for presence of SAC-designated priority habitat types) were evaluated based upon evaluation criteria presented on maps. Criteria included designation on the Habitats Tool as priorities for restoration or conservation, OAWs, impaired or TMDLed water bodies, TRI sites, ADEM surveys, WMPs, ADEM long-term monitoring stations, protected lands, NPDES permits, and % urbanization.

Process Timeline (cont.)

Results of the February 21, 2013 PIC Prioritization

Mobile Bay National Estuary Program								
Project Implementation Committee Meeting								
Watershed Ranking Exercise Results								
	#1	#2	#3					
#Respondents	1	2	3	4	5	Total	Wt.Score	Priority Habitat Identification (Habitats Tool, 2008)
Fish River	1	0	3	21	31	56	4.4	Restoration
Tensaw Apalachee	1	4	3	17	32	57	4.3	Restoration
Big Creek	1	3	8	12	31	55	4.3	Restoration/Conservation
Bon Secour	0	1	7	26	22	56	4.2	Restoration
Fowl River	1	4	7	15	30	57	4.2	Restoration
West Fowl River	0	5	8	18	26	57	4.1	Intertidal Priority
Dog River	3	4	10	15	26	58	4.0	Urban
Deer River	1	4	11	21	18	55	3.9	Restoration
Grand Bay Swamp	0	4	8	22	11	45	3.9	Conservation
Graham Bayou	3	7	17	15	13	55	3.5	Conservation
Bayou La Batre River	1	7	22	19	8	57	3.5	Restoration
Oyster Bay	1	6	26	15	9	57	3.4	Restoration
Hammock Creek	3	9	18	11	14	55	3.4	Intertidal Priority
Dauphin Island	6	6	18	10	15	55	3.4	Intertidal Priority
Little Lagoon	4	11	14	12	12	53	3.3	Intertidal Priority
Upper Blackwater	2	8	23	18	5	56	3.3	Conservation
Rains Creek	4	12	19	14	7	56	3.1	Conservation
Halls Creek	9	9	19	11	9	57	3.0	Conservation
Skunk Bayou	6	16	16	13	7	58	3.0	Conservation
Negro Creek	4	17	26	5	2	54	2.7	Conservation
Cedar Creek	9	19	18	9	1	56	2.5	Conservation

Process Timeline (cont.)

Summer, 2013 – PIC members reviewed the list of watersheds to develop a comprehensive inventory of identified Resources and Needs for each of the 21 priority watersheds. Since watersheds with completed comprehensive watershed management plans are already in implementation phases, these watersheds were not included in the process.

PIC Chairs and MBNEP staff used the work documented on this timeline to generate a draft five year strategy, which we will review and discuss. Please note:

- In developing this strategy, we determined that ***all watersheds with direct tidal influence*** should be included in this restoration strategy.
- The development and implementation of watershed management plans prescribed in ER-1 address improvements in water quality, and shoreline measures prescribed in ER-2 promote conditions favorable for **SAV** growth. This important habitat type will directly benefit from this strategy.
- Identified Needs and Resources were analyzed and used to inform development of the five-year restoration strategy. This handout is available for your review.

The Ecosystem Restoration Strategy ER-1

habfocus	#	Goals	Objectives	Activities	Year 1	Year 2	Year 3	Year 4	Year 5	Outcome
Freshwater wetlands, streams and rivers	ER-1	Improve trends in Water Quality in priority watersheds with impairments (either 303(d)-listed or those with approved TMDLs) that discharge into priority fishery nursery areas.								
			Restore conditions, including hydrology, from headwaters to intertidal zone in 5 watersheds							
				Conduct 3 Sediment Analyses	x		x		x	Trash and litter entering area waterways is reduced; Improved health of commercial and recreational fishery; Improved water quality in watersheds with impaired waters.
				Update 2 obsolete CWMPs		x		x		
				Develop 3 new CWMPs	x		x		x	
				Implement minimum of 9 current CWMPs	x	x	x	x	x	
				Watershed- D'Olive	x	x	x	x	x	
				Watershed- Fish		x	x	x	x	
				Watershed- Eight Mile		x	x	x	x	
				Watershed- Three Mile		x	x	x	x	
				Watershed- Fowl River?			x	x	x	
				Watershed- Bon Secour?			x	x	x	
				Watershed- Dog River				x	x	
				Watershed- Little Lagoon				x	x	
				Watershed- Graham Bayou (Wolf Bay)				x	x	

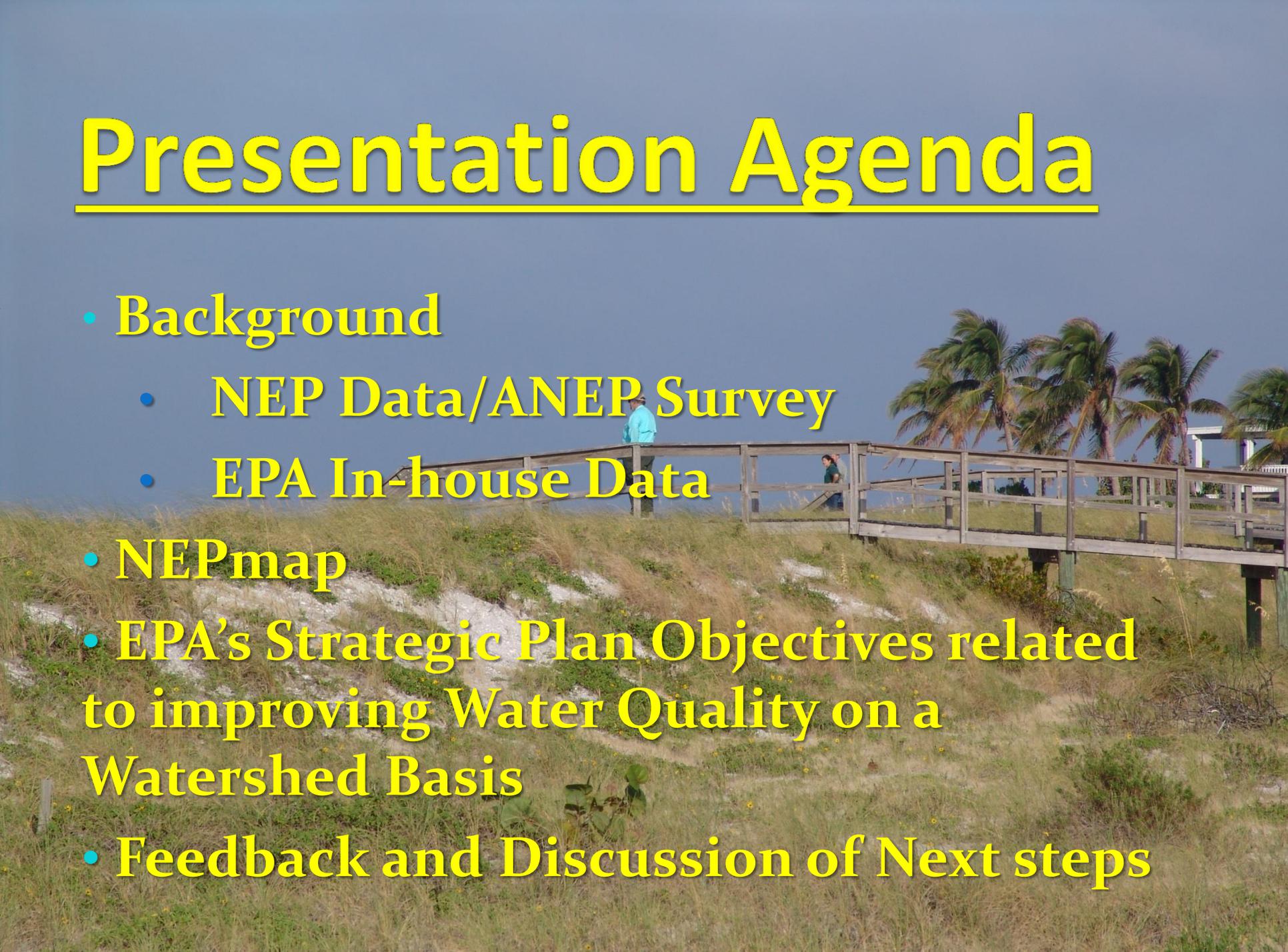
The Ecosystem Restoration Strategy ER-2

habfocus	#	Goals	Objectives	Activities	Year 1	Year 2	Year 3	Year 4	Year 5	Outcome
Intertidal Marshes and Flats	ER-2	Improve ecosystem function and resilience through protection, restoration and conservation of habitats including beaches, bays, backwaters, and rivers.								
			Install living shorelines along all publicly owned bay, backwater and intertidal waterways (how many linear feet is this?)							Increase in "natural" shorelines on bays, backwaters, and rivers
				Project 1	x					
				Project 2		x				
				Project 3			x			
				Project 4				x		
				Project 5					x	
				Monitoring		x	x	x	x	
			Install _____ linear feet of living shorelines along privately owned bay, backwater and intertidal waterways							
				Project 1	x					
				Project 2		x				
				Project 3			x			
				Project 4				x		
				Project 5					x	
				Monitoring		x	x	x	x	
			Plant _____ acres of sea oats to stabilize dune system along Gulf Fronting Beaches							
				Project 1	x					Improve health and resiliency of beaches and dunes
				Project 2		x				
				Project 3			x			
				Project 4				x		
				Project 5					x	
				Monitoring		x	x	x	x	
			Remove HWY 98 Causeway at Choccolatta Bay/ John's Bend/Justins Bay							Restore hydrology and nearshore landscape
				Feasibility Study/Modeling	x	x				
				Design/Permitting			x			
				Construction				x	x	
				Monitoring						
			Restore _____ acres of nearshore and intertidal marshes and flats							Expand usage of dredge material in restoring nearshore and intertidal marshes and flats
				Identify priority areas of Salt marsh restoration	x					
				Evaluate availability of dredge materials	x	x				
				Implement restoration in areas where beneficial use of dredge material is possible		x	x	x	x	
				Monitoring			x	x	x	

The Ecosystem Restoration Strategy ER-3

habfocus	#	Goals	Objectives	Activities	Year 1	Year 2	Year 3	Year 4	Year 5	Outcome
	ER-3	Restore/Expand human connections								Increase more environmentally-appropriate access for multiple uses (launches, fishing piers, urban areas, greenspace) in each type of ecosystem. (Restore connections between environment, economy, and community)
			Create 10 new access points (at least 7 in Mobile County) that couple access with demonstration of restoration techniques							
			Protect, conserve priority habitats for public benefit and access through acquisition and conservation easement							
			on historical and ethnic and religious themes to encourage eco-heritage tourism around and on the estuary (Native American, African-American, Civil War, etc.).							

Presentation Agenda



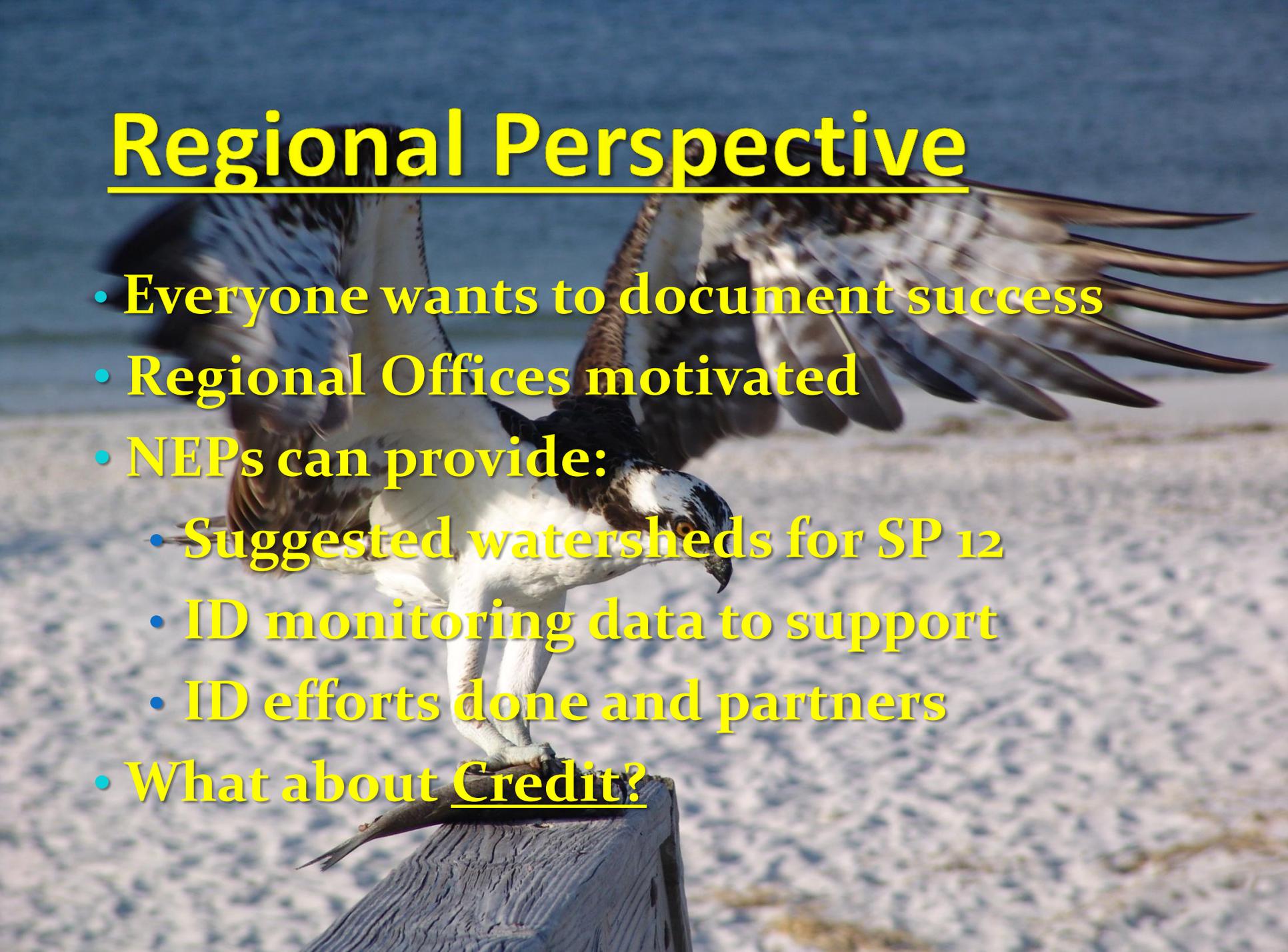
- Background
 - NEP Data/ANEP Survey
 - EPA In-house Data
- NEPmap
- EPA's Strategic Plan Objectives related to improving Water Quality on a Watershed Basis
- Feedback and Discussion of Next steps

EPA's Strategic Plan

Objective 2.2.1 – Improve Water Quality on a Watershed Basis

- SP-10: Number of waterbodies identified in 2002 as not attaining water quality standards where standards are now fully attained (cumulative).
- SP-11: Remove the specific causes of waterbody impairment identified by states in 2002 (cumulative)
- SP-12: Improve water quality conditions in impaired watersheds nationwide using the watershed approach

Regional Perspective

An osprey is perched on a weathered wooden post, holding a fish in its talons. Its wings are spread wide, showing the intricate patterns of its feathers. The background is a bright, sandy beach with a clear blue sky.

- Everyone wants to document success
- Regional Offices motivated
- NEPs can provide:
 - Suggested watersheds for SP 12
 - ID monitoring data to support
 - ID efforts done and partners
- What about Credit?

NEP Water Quality Activities: Strategic Plan Measures



EPA SP 12 Process – Roberts Bay (1968D)

Mark Alderson, Executive Director
Sarasota Bay Estuary Program
February 27, 2012

Impairment

- Roberts Bay was listed as impaired for nutrients
- Phillippi Creek (major tributary) is listed for bacteria
- In 1993, Phillippi Creek was estimated to contribute one third of the TN load to Sarasota Bay.

Submittal Format:

- Watershed Identification
- Baseline Condition
- Watershed Approach
- Stakeholder Involvement
- Watershed Plan
- Results (delisting as an Impaired Water)

Tributary Watershed Management Plans

CCMP In-place Prior to TMDLs/NNC



Phillippi Creek, Sarasota.

Since all segments of Sarasota Bay meet state water quality standards, the focus has shifted to improving the tributaries. The tributaries contributing the greatest pollution load to Sarasota Bay are Phillippi Creek, Bowlees Creek, and Whiskey Bayou.

PHILLIPPI CREEK

Nitrogen pollution levels in Phillippi Creek have declined 60 percent since 1988. Although Phillippi Creek remains listed for fecal and total coliforms, significant work has been completed on the system:

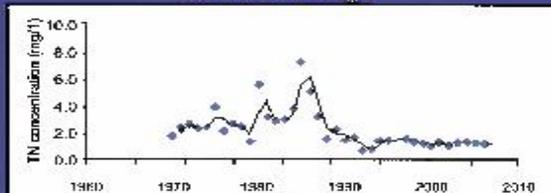
- Removal of 19 small private wastewater treatment plants
- Construction and expansion of the Box Ridge wastewater treatment facility to accommodate additional flow
- Construction of the Celery Fields Regional Stormwater Treatment Facility and Pine Craft Levee Project to prevent flooding
- Continuing implementation of the septic-to-sewer program

BOWLEES CREEK

Although Bowlees Creek still exceeds state standards for both nitrogen pollution and bacteria, Manatee County has implemented significant stormwater and wastewater programs to remediate impairment:

- Installation of silt traps in the Airport Drain stormwater system
- Construction of a stormwater treatment system, silt traps and littoral zone plantings in Nicholson Branch
- Upgrade to the Sarasota Cay Club Marina pump-out facility
- Modernization of sewer system service to Trailer Estates
- Assessment of the performance of sewer lines in the Creek basin
- Expansion of stormwater treatment capacity of Lake Brennan

Phillippi Creek Nitrogen Concentrations Annual Average

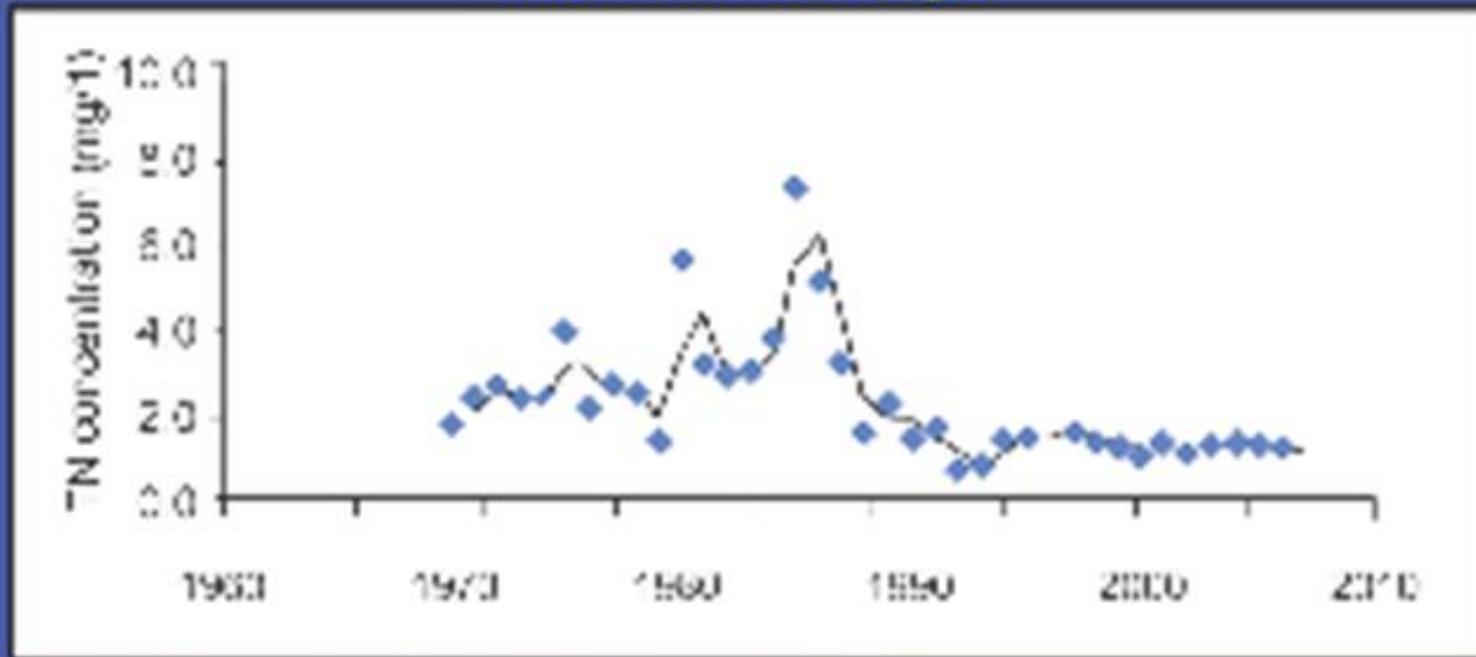


Source: Florida Department of Environmental Protection, 2009

Watershed Plan

- Consolidate 21 wastewater treatment plants
– eliminate discharge
- Remove approximately 15,000 septic tanks
- Construct Regional Stormwater Treatment Facility and Pine Craft Levee System
- Implement FYN and LID

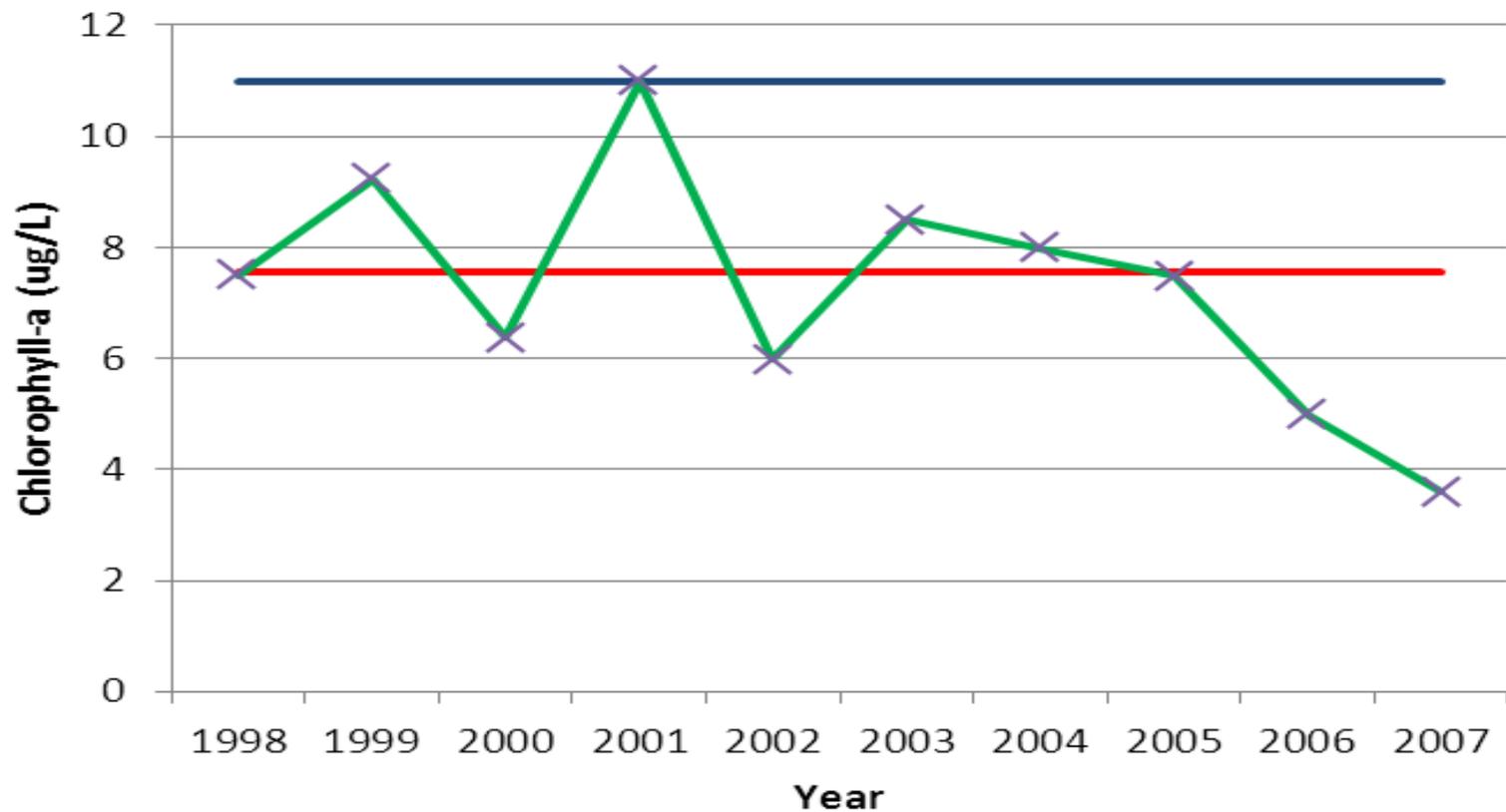
Phillippi Creek Nitrogen Concentrations Annual Average



(Sarasota Estuary Site Report of City Commission 1999)

**TN concentrations declined 60% -
creek flow reduced substantially.**

Roberts Bay - WBID 1968D Annual Average Chlorophyll-a



- Chlorophyll-a Treshold
- Historic Chlorophyll-a Threshold (ug/L) (50% of Hist. Chla Value)
- Annual Average Chlorophyll-a (ug/L)

SP-12 Process

- Time – About three days of work preparing the SP-12 submittal and reviewing the draft.
- Relationships – Built relationships with governmental entities; and political connections
- Several days over Christmas break preparing for visit.

SARASOTA

BART PFANKUCH, CITY EDITOR, 941-4992, bart.pfankuch@heraldtribune.com

Friday, December 30, 2011 SECTION B

WATER PROJECTS ADMIRIED

ENVIRONMENT: EPA visits to see if Sarasota County successes can be copied

By KATE SPINNER
kate.spinner@heraldtribune.com

SARASOTA COUNTY — Water quality and flood control projects here are paying off in a healthier Sarasota Bay, and they are also receiving national attention.

Nancy Stoner, the federal Environmental Protection Agency's acting assistant administrator, visited the county on Thursday to see which successful projects here could be replicated in other corners of the country.

While the overall improvement to Sarasota Bay was the draw, the focus was on Phillippi Creek, a still-troubled waterway that has seen a 60 percent reduction in nitrogen pollution since 1998.

"There will be a lot of interest in what people have done here and how it worked to restore those water bodies," Stoner said.

Stoner toured several recently completed projects in the Phillippi Creek watershed that aim to improve water quality further. The creek still struggles with high levels of fecal bacteria and other types of pollution.

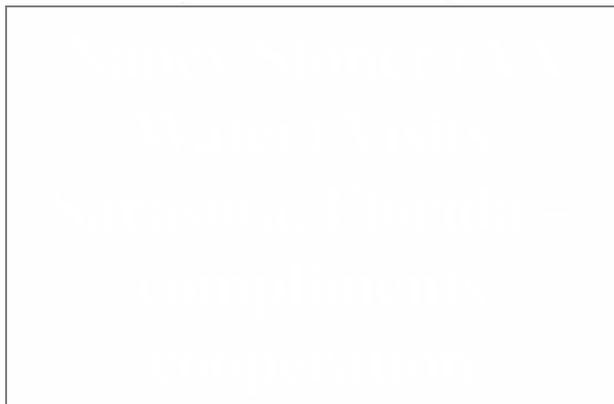
Phillippi Creek accounts for about a third of all the pollution that enters Sarasota Bay.

It drains a 35-square-mile watershed that stretches east of Interstate 75 and north and south from University Parkway to Clark Road.

Most of the watershed is paved, with busy roads that connect to culverts and pipes leading directly to the creek.

No stretch of Phillippi Creek remains in its natural state, due to ditching and sea walls. But projects such as the Celery Fields

See WATER on B8



1/2/12

Questions?

