The National Fish Habitat Action Plan (NFHAP): Science supporting conservation from summit to sea

National Shellfisheries Association
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NOAA/NOS Coastal Monitoring & Assessment, Silver Spring MD

With thanks to:
Kay McGraw, Susan-Marie Stedman, Kristan Blackhart, Joe Nohner, Emily Greene, Julie Devers, Mark Sramek, Jenni Wallace, Correigh Greene, Allison Candelmo, Kirsten Larsen, Steve Brown, the NFHAP Science and Data Committee

National Fish Habitat Action Plan - NFHAP

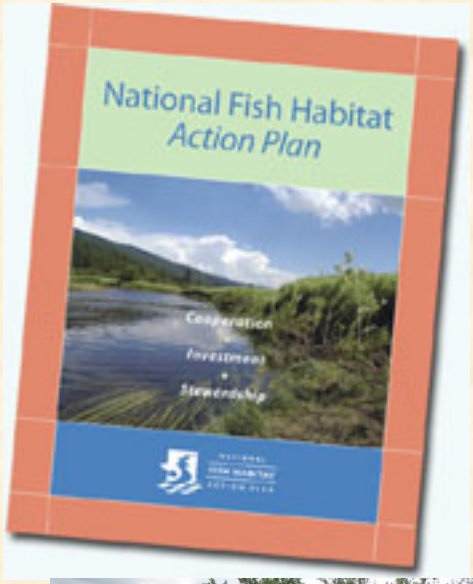
Program: **Mission, Origins, Objectives**

Science: **Through a Fish's Eye: The Status of Fish Habitats in the United States, 2010**

Conservation: **Projects in progress by Southeastern and Atlantic Coastal Fish Habitat Partnerships**

National Fish Habitat Action Plan (NFHAP)

U.S. Dept. Interior (USFWS and USGS), NOAA, Association of Fish and Wildlife Agencies (AFWA), States, Tribes, NGOs



Mission:

"Protect, restore, and enhance the nation's fish and aquatic communities through partnerships that foster fish habitat conservation and improve the quality of life for the American people."

Scope:
All U.S. waters, "*Summit to sea*"

National Fish Habitat Action Plan (NFHAP)

Origins

2002: The Sport Fishing and Boating Partnership Council recommended a "national aquatic habitat plan" modeled after the North American Waterfowl Management Plan

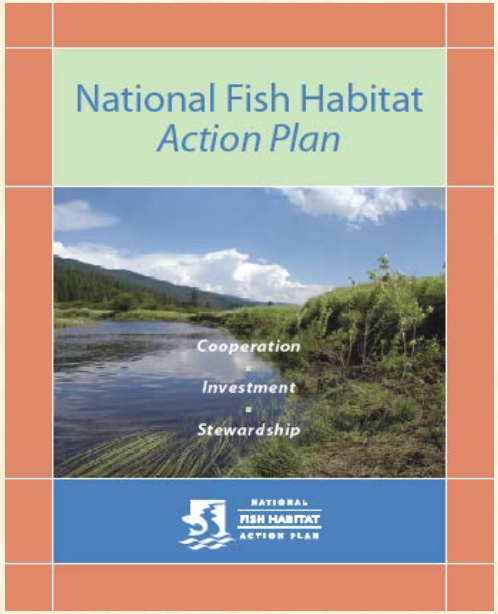
2003: AFWA endorses the concept of a "comprehensive national fisheries habitat plan/strategy" and agrees to oversee its development

2005 – 2006: Workgroup holds a series of workshops and writes Action Plan

Signed on April 24, 2006 by Secretary of Commerce, Secretary of the Interior, and the Association of Fish and Wildlife Agencies

National Fish Habitat Conservation Act (HR2565, S1214)

Objectives



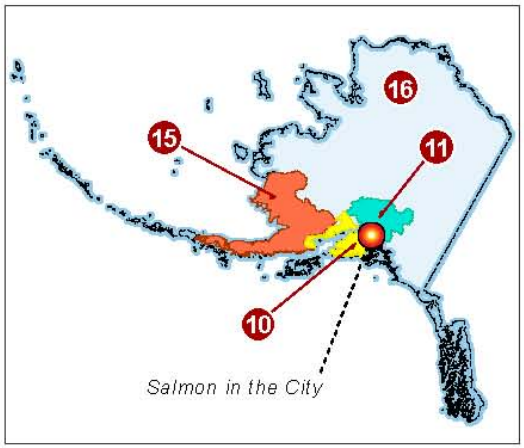
- Identify priority fish habitats and establish Fish Habitat Partnerships targeting these habitats by 2010.
- Establish 12 or more Fish Habitat Partnerships throughout United States by 2010.
- Conduct condition analysis of all fish habitats within the United States by 2010.
- Prepare a *Status of Fish Habitats in the United States* in 2010, and every five years thereafter.
- Protect all healthy and intact habitats by 2015.
- Improve the condition of 90 percent of priority habitats and species targeted by Fish Habitat Partnerships by 2020.

Fish Habitat Partnerships

March 2010

NATIONAL FISH HABITAT ACTION PLAN

Several with a coastal focus!



PMEP *Pacific Marine and Estuarine Partnership*

North American Salmon Stronghold Partnership

Geographic/Species Based Partnerships

1. Atlantic Coastal FHP
2. California Fish Passage Forum
3. Desert FHP
4. Driftless Area Restoration Effort
5. Eastern Brook Trout Joint Venture
6. Fishers and Farmers Partnership
7. Great Lakes Basin FHP
8. Great Plains FHP
9. Hawaii FHP
10. Kenai Peninsula FHP
11. Mat-Su Basin Salmon Habitat Partnership
12. Midwest Glacial Lakes Partnership
13. Ohio River Basin FHP
14. Southeast Aquatic Resources Partnership
15. Southwest Alaska Salmon Habitat Partnership
16. Western Native Trout Initiative

System Based Partnership

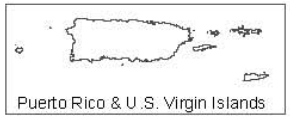
Reservoir FHP

ACFHP

SARP

Lower Mississippi River Conservation Committee

HFHP



Denotes *"Candidate"* Fish Habitat Partnership

NFHAP 2010 National Assessment – April 2011

Regional perspectives and comparisons, inland watershed conditions, coastal estuarine and watershed conditions, local action.

The result – a national* coastal spatial framework:

Six regions

Pacific, Gulf of Mexico, North Atlantic, Mid-Atlantic, South Atlantic, South Florida

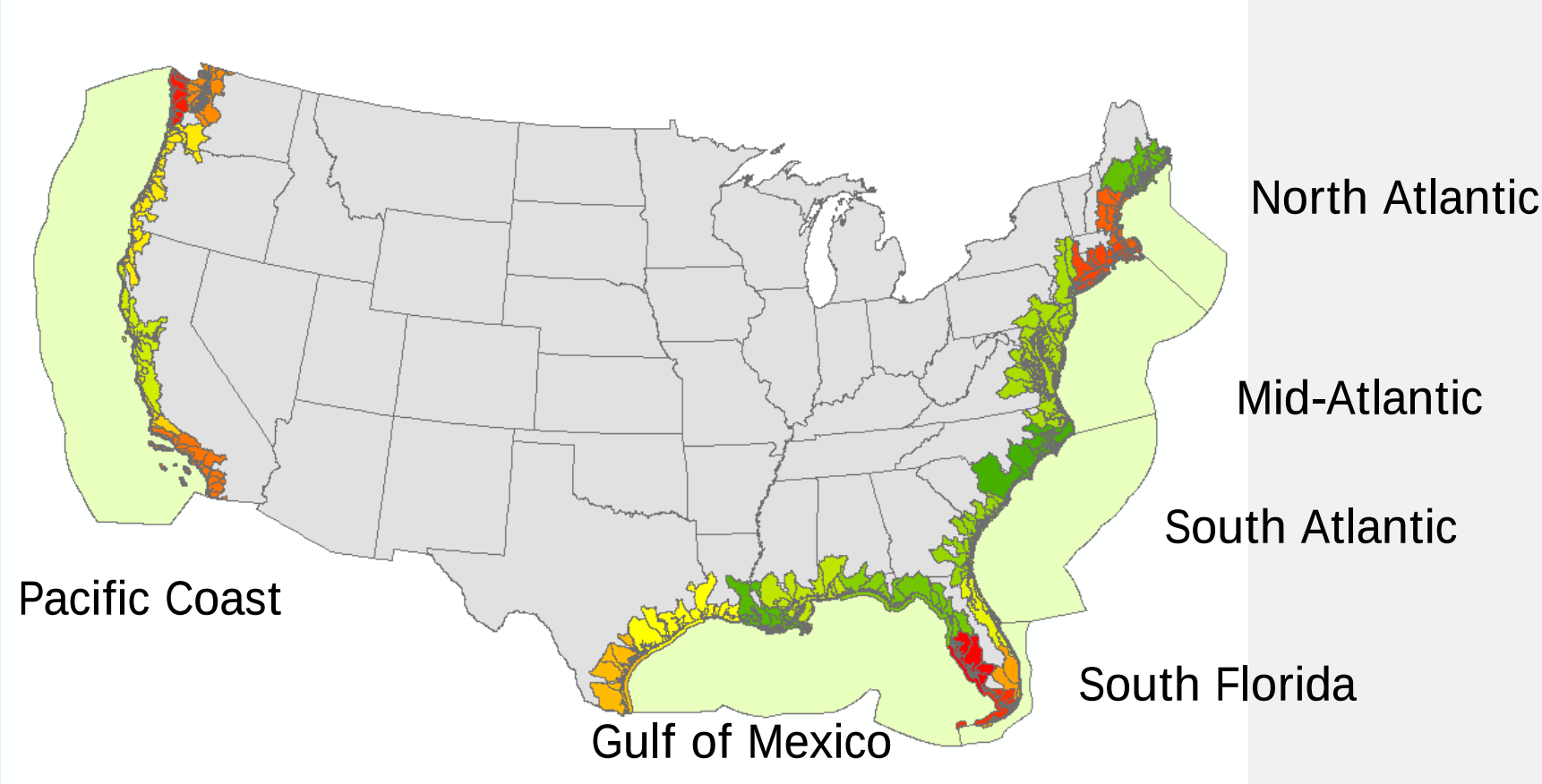
22 States, 22 Sub-regions

Four zones

Watersheds (EDA, CDA), Estuarine, Marine-State, Marine-Federal

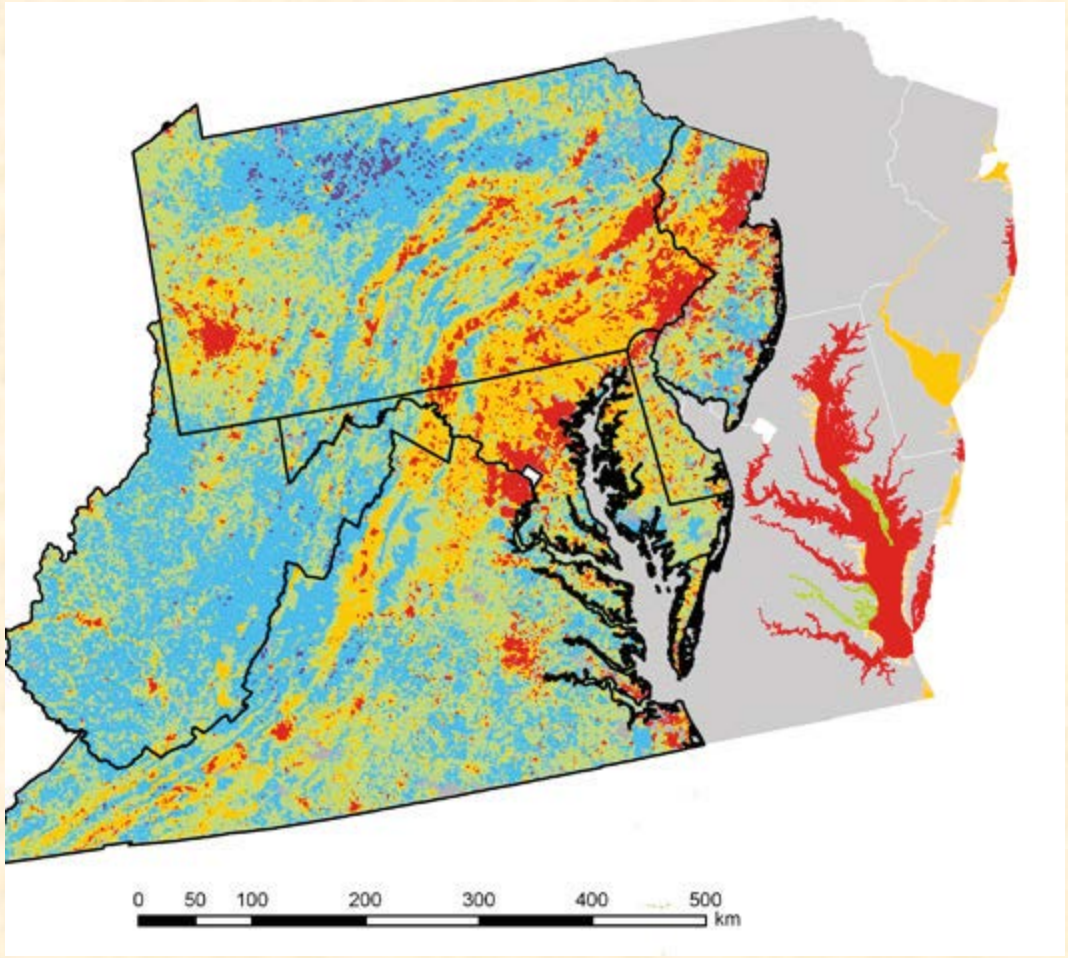
612 Polygons

201 Estuarine, 195 EDAs, 151 CDAs, 40 Marine-State, 6 Marine-Federal, 19 River Mouths



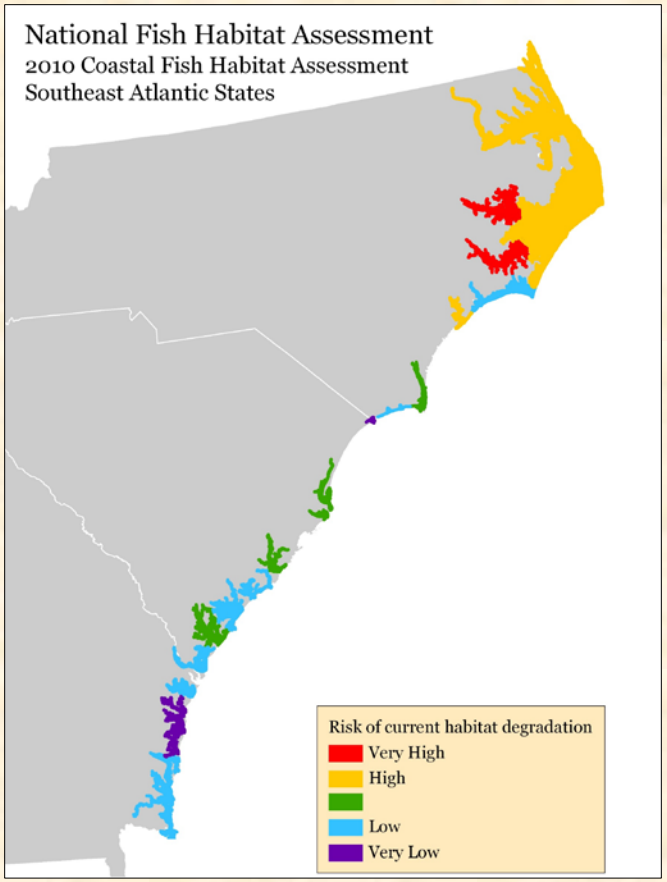
NFHAP 2010 National Assessment

Inland component **uses NHD+ as spatial framework, with watershed condition indicators (land uses, densities of point source pollution sites, dams, roads and road crossings, population, and mines) calibrated to stream fish populations using multivariate analyses.**



NFHAP 2010 National Assessment

Coastal component **uses modified version of NOAA's Coastal Assessment Framework (estuaries, watersheds, inshore marine), with a set of four indicators:**



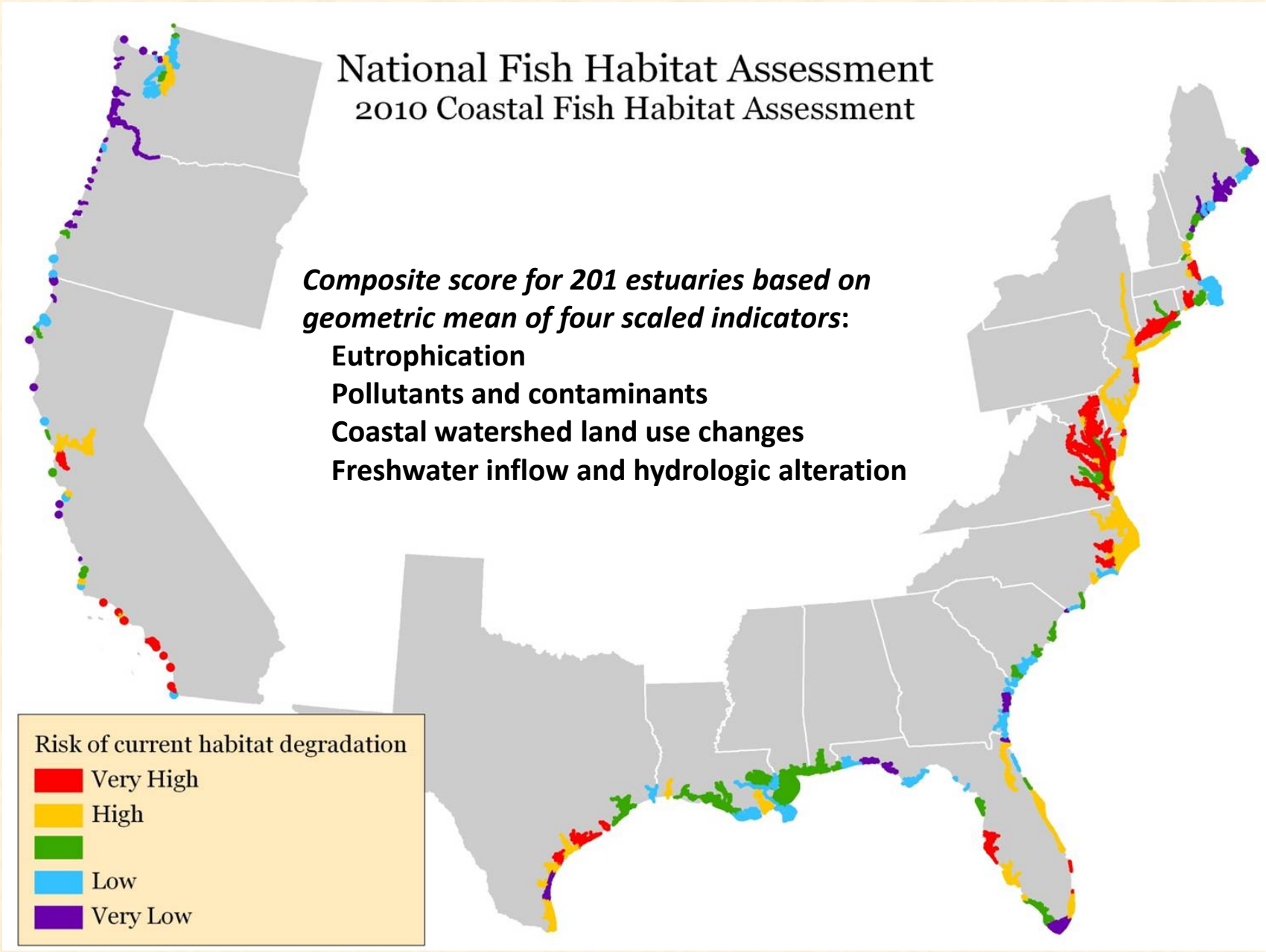
1. **Eutrophication**
   - **NEEA Overall Eutrophic Condition**

2. **Pollutants and contaminants**
   - **NPDES, TRI in coastal watersheds**

3. **Coastal watershed land use changes**
   - **CCAP & NLCD - 6 aggregated % land cover metrics**

4. **Freshwater inflow and hydrologic alteration over time**
   - **USGS gage data sets >30 yrs**

NFHAP 2010 National Assessment



NFHAP 2010 National Assessment

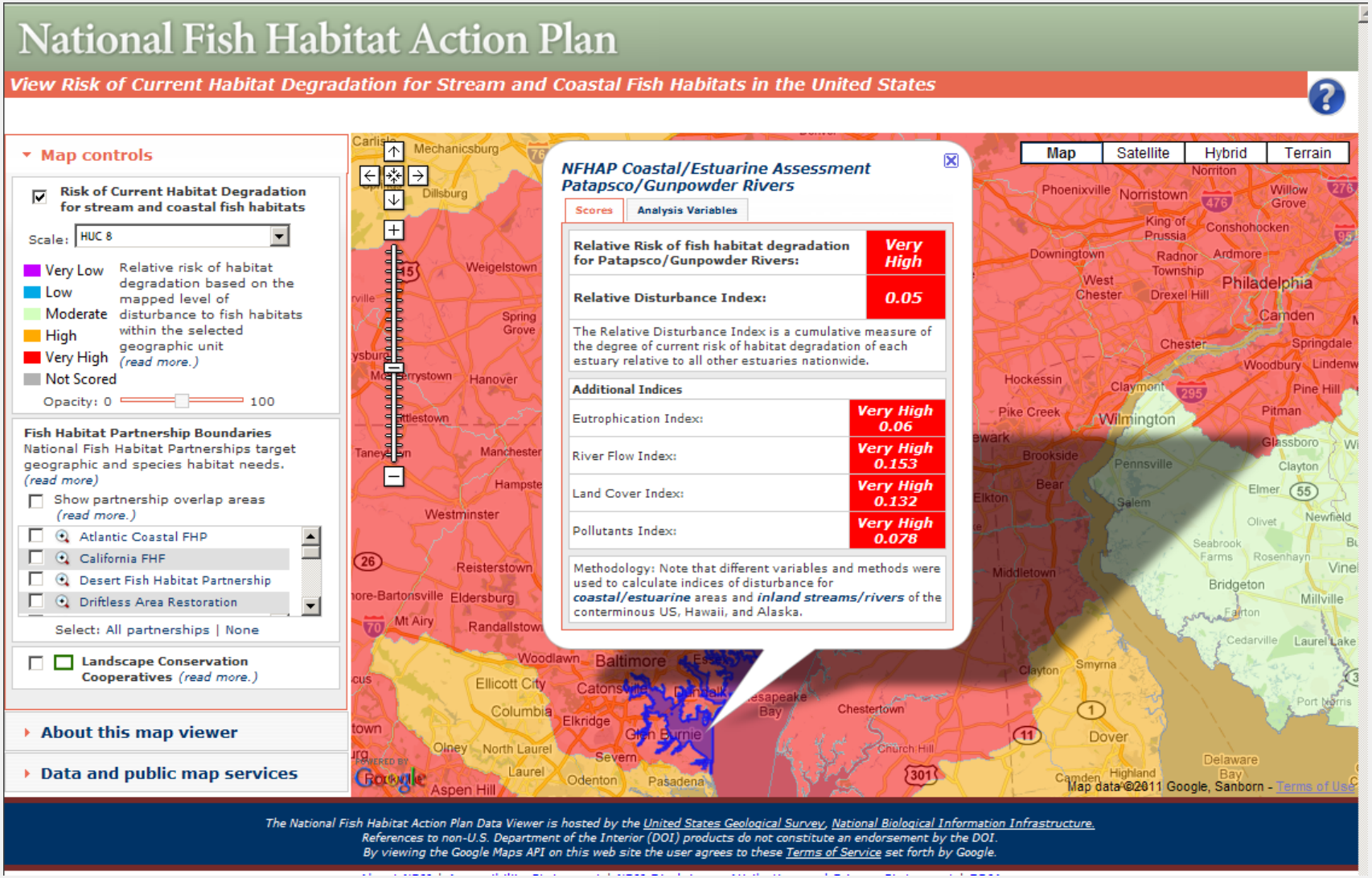
A few caveats of the approach

- **Using "consistent nationwide data" is both a strength and a limitation: results comparable, but much good info left out.**
- **Inland and coastal components use different approaches – watershed vs. estuarine spatial framework and indicators.**
- **Deriving a "single score" for a spatial unit enables us to visualize results – but it may conceal as much information as it reveals.**
- **How do fish populations respond to the conditions being measured?**
- **Results may not be applicable at all scales – national to local.**
- **Caution using National and regional scale assessment to make local conservation decisions.**

NFHAP 2010 National Assessment: to be released April 2011

Report will be available as pdf

USGS developing web-based data delivery portal



ACFHP Projects

- FY10 FWS-NFHAP Funded projects
- ACFHP Endorsed Project
- FY11 FWS-NFHAP project applications

Potential new projects in FY'11:

- Shoreline and *Spartina* Marsh stabilization along the Atlantic Intracoastal Waterway, SC
- Restoring Diadromous Fish Passage and Habitat to Shoreys Brook, ME

Southeastern Aquatic Resources Partnership (SARP)
NFHAP – SARP Projects

- Galveston Bay TX: oyster reef restoration
- Roanoake Sound, NC: shoreline protection with oyster reef restoration at Jockeys Ridge State park
- Bennett Bayou MS: tidal marsh restoration
- Tampa Bay FL: shoreline stabilization with oyster restoration

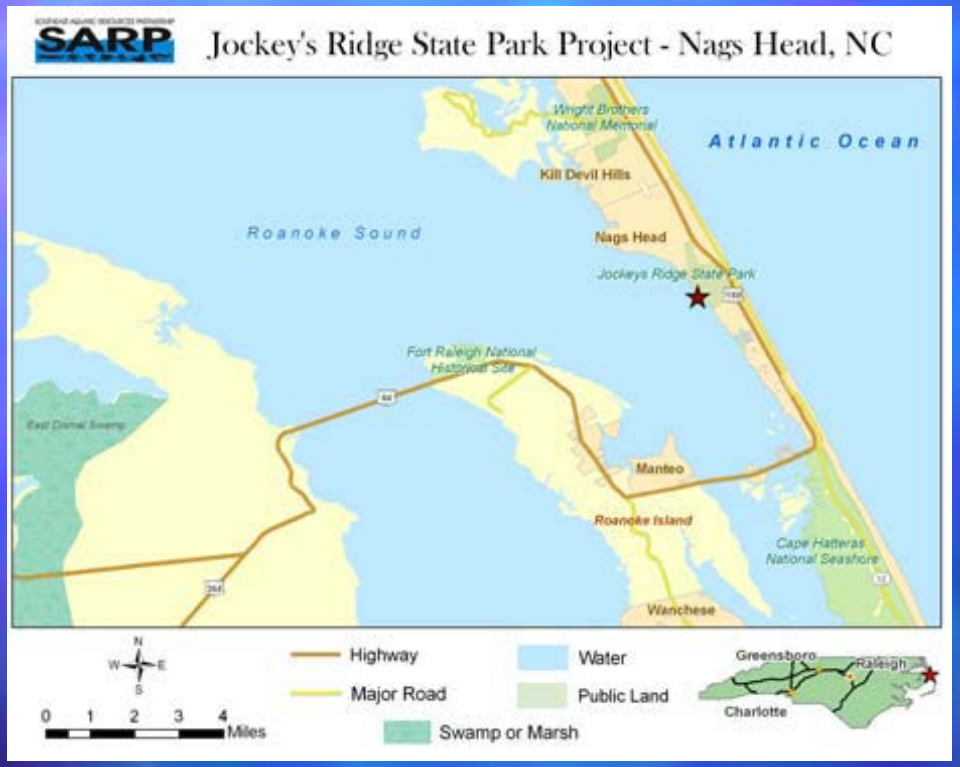
Projects with NOAA's Community-based Restoration Program

- Sapelo Island GA: oyster reef / shoreline stabilization
- Skidaway Island GA: oyster reef / shoreline stabilization
- Belleville GA: oyster reef creation / non-shell cultch
- Altamaha River GA: "FAD" oyster spat recruitment
- Manatee County FL: tidal wetland restoration

Shoreline and Spartina Marsh stabilization along the Atlantic Intracoastal Waterway, SC

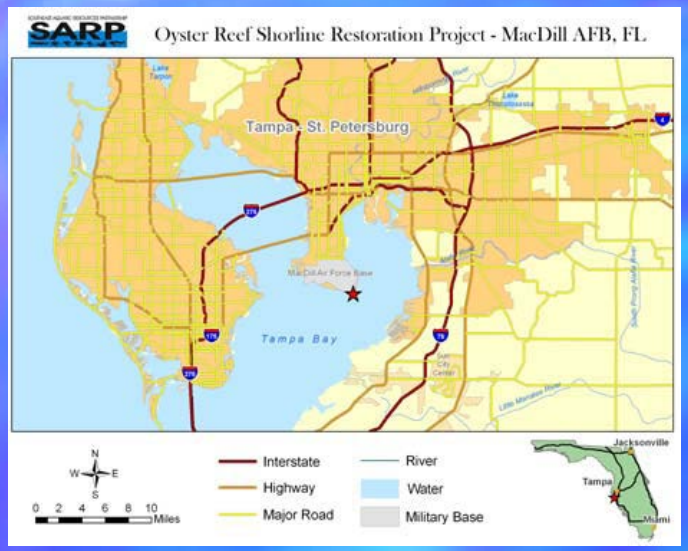
- Rehabilitate tidal marsh areas by constructing oyster reefs
- **Problems:**
  - shorelines subject to severe erosion due to heavy boat traffic
  - artificial channelization disrupts natural shoreline processes
- **Objectives:**
  - construct oyster habitat
  - protect the shoreline and create tidal marsh
  - create self-sustaining reefs to promote sediment accretion
- **Partners:**
  - South Carolina Dept. Environmental Conservation
  - Coastal Conservation Associations
  - Atlantic Coastal Fish Habitat Partnership

NFHAP and SARP Project



Roanoke Sound NC, Jockeys Ridge State Park
Shoreline protection, *Spartina* marsh creation, oyster restoration
NC Coastal Federation, TNC, NCDMF, USFWS

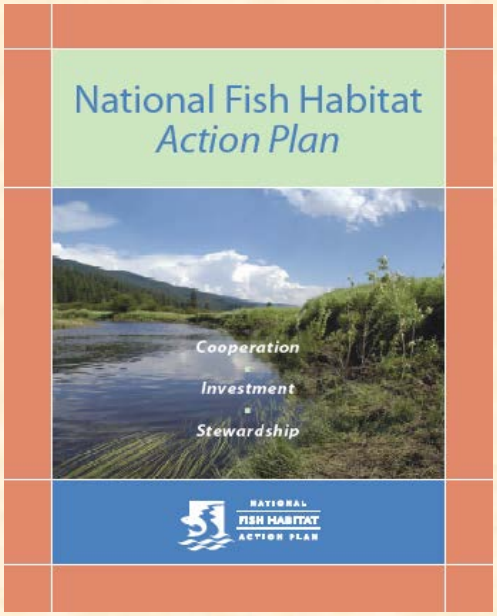
NFHAP and SARP Project



MacDill AFB, Tampa Bay FL
One half mile shoreline stabilization
2,400 concrete oyster domes
36 tons oyster shells, 1,700 bags
Tampa BayWatch “Grasses in Classes”
U.S. Air Force, USFWS

Take-home messages

- NFHAP – a relatively new National-scale fish habitat conservation program, based on regional partnerships.
- Scope includes all U.S. waters, summit to sea.
- Regional and national scale assessment results.
- Targeted conservation projects implemented by individual Fish Habitat Partnerships
- Shellfish beds identified as priority fish habitat.
- Oyster reef restoration projects in progress by both Southeastern Aquatic Resources Partnership (SARP) and Atlantic Coastal Fish Habitat Partnership (ACFHP)



Thanks!

Mahalo Nui Loa!

Céad Mile Failte

Tusen Takk!

www.fishhabitat.org