



The Cape Fear River Partnership

Opportunities for Further Arch Involvement

Melanie Harris
NMFS Office of Habitat Conservation
Cape Fear Arch Conservation Collaboration Meeting
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Objectives

- Overview: Cape Fear River Partnership
- Overview: Draft Cape Fear River Basin Action Plan for Migratory Fish
- Alignment with Arch interests and opportunities for Arch involvement
- Next Steps





Why the Cape Fear River Basin?

- Large basin with diverse problems and habitat conservation needs
- Momentum of fish passage at Corps Lock and Dam #1
- Presence and status of protected and managed species
- Active partners interested in migratory fish
- Opportunity to make significant improvements for migratory fish and protect from future threats





The Fish

The Partnership and Plan focus on migratory (diadromous) fish, recognizing improvements to their habitat will benefit estuarine dependent and resident fish too



American shad



Blueback herring



Alewife



Shortnose sturgeon



Atlantic sturgeon



American eel



Striped bass



The Partnership

Mission: Restore robust, productive, and self-sustaining stocks of migratory fish in the Cape Fear River

Fifty+ partners (> 20 organizations) including federal, state, local, academia, and NGOs



Rivers Connect Us





Website

<http://www.habitat.noaa.gov/protection/capefear/index.html>

The screenshot shows the NOAA Habitat Conservation website for the Cape Fear River Partnership. The page features a navigation menu on the left with links to Home, About Us, Our Work, About Habitat, Funding Opportunities, Our Partners, News & Multimedia, Publications & Resources, Habitat Protection, Restoration Center, and Chesapeake Bay. The main content area includes a search bar, a breadcrumb trail (Habitat Home > Habitat Protection > Cape Fear), and a large header image of people on a boat. Below this, there is a section titled "Cape Fear River Partnership" with a sub-header "NOAA and partners are working together to improve the health of the Cape Fear River for migratory fish." A "What's at stake?" section follows, stating that the Cape Fear River basin is one of the largest watersheds in North Carolina, stretching from the Atlantic Ocean to past Greensboro. It mentions poor habitat quality in rivers and streams threatens fish species like American shad, striped bass, river herring, and endangered Atlantic and shortnose sturgeon populations. Cooms and other blockages prevent fish such as shad from migrating upstream to spawn their eggs. A map of North Carolina highlights the Cape Fear River basin. Below the map, there are several news items: "Littoral Zone Funding Available for Restoration Projects in Gulf Estuaries" (up to \$300,000), "Product Restoration Job Stimulating Local Economies in Oregon" (over \$100 million), and "Locomotion: Transforming a concrete shoreline into a vibrant, living place for both people and nature" (over \$10 million). A "Join the conversation" link is also present. The "Who are the partners?" section lists various organizations including The Nature Conservancy, DWR, American Rivers, Wilmington, NC State University, NCDWR, SOIL & WATER, FAYATMIST, and INCW. The "What are we doing?" section describes a multi-year action plan to develop habitat-based solutions for migratory fish. The "What's in it for me?" section notes that improved habitat conditions will benefit not only fish species but also communities that depend on the river for water supply and recreational opportunities. The "How will it work?" section lists three key actions: identifying threats, outlining actions to improve water quality and habitat, and determining community and economic benefits. The "What's next?" section states that the partnership will continue to work on the plan for the Cape Fear River and will reach out to the broader community, with completion of the plan by the end of 2012.



The Plan

- Provides long term habitat-based solutions to challenges for migratory fish
- Uses a wide range of authorities and non-regulatory tools to protect and restore habitats
- Includes socio economic analysis and actions
- Will benefit communities that depend on the river for water supply and recreational opportunities





Plan Organization and Goals

Goals: Broad goals for the plan

Problem Statements: Specific problems for migratory fish

Ecological Endpoints: Measurable endpoints that address problems

Actions: Specific, measurable, time bound, specific partners to implement

Goals:

- Goal 1: Restore Access to Historic Migratory Fish Habitat
- Goal 2: Improve Habitat Conditions for Migratory Fish
- Goal 3: Identify Socioeconomic Benefits of Migratory Fish Restoration



Plan Organization: Problem Statements

1. Obstructions block/delay access to historic spawning and nursery habitats
2. Spawning and nursery habitats are degraded
3. Quantity and timing of flow altered compared to natural conditions
4. Need to prevent adverse physical/chemical impacts from emerging threats
5. Deteriorating water quality is affecting migratory fish
6. Commercial and recreational fishing, recreation, and ultimately jobs are impacted by threats to migratory fish



Plan Organization: Ecological Endpoints

- Overarching:
 - Increased fish populations
 - Increased recreational fishing success
 - Re-open striped bass and river herring harvest
- Increased % of accessible historic spawning and nursery habitat
- Increased % of vegetated wetland habitat
- Reduced/eliminated future damage to instream habitat
- Seasonality and magnitude of flows support needs at all life stages
- Decreased inputs of toxic metals and endocrine disrupting chemicals
- Maintain minimum of 5 mg/L DO in spawning areas
 - Eliminate blue green algal blooms and prevent future blooms
 - Decreased nutrient input



Next Steps

- Expect completion of the Cape Fear Action Plan by end of 2012
- Plan implementation to begin in 2013





Questions?

For additional information please contact: Melanie.Harris@noaa.gov
or see <http://www.habitat.noaa.gov/protection/capefear/index.html>







Alignment with the Arch

Shared interests/goals:

- Common interest in six Arch Conservation Plan priority areas:
 - #2 Northeast Cape Fear River Floodplain and Marshes
 - #3 Smith Creek Greenway
 - #5 Town Creek/Lower Cape Fear River Corridor
 - #14 Black River Corridor
 - #21 Brunswick River/Cape Fear River Marshes
 - #26 Cape Fear River Corridor
- Partnership approach to promoting conservation



Alignment with the Arch

- Focal species for Cape Fear Plan includes shortnose sturgeon, one of the Arch Plan's conservation target species
- Common partners:
 - City of Wilmington
 - CFRW
 - TNC
 - New Hanover County
 - NC Cooperative Extension
 - NC state agencies
 - Army Corps
 - USFWS



Alignment with the Arch

The Cape Fear Plan addresses several Arch priority issues. For example:

- Enhance and restore water quality (e.g., protect buffers, improve stormwater management)
- Leverage cost-share programs
- Encourage landowners to use BMPs and recognize landowners that are doing the right thing
- Limit de-snagging
- Restore wetlands and streams in priority areas
- Protect in-stream habitat
- Develop strategies to address climate change



Example Actions for Arch Involvement

Action	Timeframe	Lead Partners
Apply targeted protection actions to priority spawning areas: Smith Creek, Rice Creek, Town Creek, Smiley Falls	Long	DWQ, DMF, WRC
Produce outreach materials on the value of vegetated shorelines for habitat protection and importance of reducing non-point runoff (agriculture, forestry, development land-use activities)	Short	DMF
Create GIS map of remaining inland freshwater wetlands and flooded hardwoods; provide data to NC Coastal Land Trust, TNC, and other land trust focused NGOs	Medium	NOAA
Land protection organizations use GIS results to focus outreach/education activities with landowners and/or developers in promoting conservation easements, conserving hardwood habitats and overall protection of riparian habitats	Medium	TNC



Example Actions for Arch Involvement

Action	Timeframe	Lead Partners
Complete basin-wide analysis to determine location of existing wetlands, aquatic habitats, and vegetated uplands, and determine land use changes over time. Use analysis to support buffer preservation and expansion in areas to protect water quality.	Short/ Medium	TNC, UNC, DMF, WRC, NOAA, DWQ, DMF
Look at climate change and sea-level rise impacts on migratory fish habitat	Long	DMF, Arch, Natural Heritage Program
Create outreach materials on snag removals and provide to relevant state agencies, soil and water conservation districts, and county extension agents to educate landowners	Short	CFRW, NOAA, DWR, Cooperative Extension



Example Actions for Arch Involvement

Action	Timeframe	Lead Partners
Continue promoting NC Agriculture Cost Share Program with emphasis on BMP s that can improve water quality in critical habitat areas	Medium	NCDA&CS DSWC, select soil and water conservation districts
Develop monitoring and modeling plan for middle Cape Fear River, in coordination with dischargers, to better assess water quality concerns associated with river flow, excess nutrients, and algal blooms	Medium	DWQ
Increase developers participation in Wildlife Friendly Development Program in part by inviting WRC to hold a workshop in Wilmington that reviews guidelines for the program certification	Medium	CFRW, real estate developers, WRC
Reinvigorate and expand the River Friendly Farmers Program throughout basin	Medium	Select soil and water conservation districts



Example Actions for Arch Involvement

Action	Timeframe	Lead Partners
Advocate and monitor for implementation of forestry BMPs, including the establishment, management, and protection of stream and riparian buffer zones	Medium	NC Forest Service, select soil and water conservation districts
Provide a workshop for select soil and water conservation districts and cooperative extension to focus on setting local priorities with Cape Fear migratory fish outcomes. Will focus on incorporating priority areas in local program delivery, River Friendly Farmer Program, Stewardship Development Awards Program, and drug take back programs.	Short/Medium	NCDA&CS DSWC



Example Actions for Arch Involvement

Action	Timeframe	Lead Partners
Continue promoting existing NRCS programs with emphasis on BMPs that can improve water quality in critical habitat areas	Medium	NRCS, select soil and water conservation districts
Implement feasible and cost-effective stormwater retrofit projects to mitigate development impacts. Stream channel restoration activities should be implemented in target areas in order to improve aquatic habitat.	Medium	NCDA&CS DSWC, select soil and water conservation districts, local governments
Secure additional funding for Lagoon Conservation Program to encourage use of innovative animal waste management systems	Medium/Long	NCDA&CS DSWC

