



DIRECTOR'S NOTE

Greetings,

The advent of spring has again breathed new life into our program, and many exciting developments are underway.

First, I offer my sincerest gratitude to our advisory board members, partners and staff for their efforts in developing APNEP's newly approved Comprehensive Conservation and Management Plan. Our ecosystem-based management efforts have been the subject of national attention, and implementation of the plan has begun in earnest.

On a related note, field work for many APNEP-supported initiatives is well underway. Some are covered briefly in this issue of Soundings, and other initiatives will soon be covered in our new blog format, which will also be available through our listserv and social media channels.

Finally, we have just completed our move to the Nature Research Center, the new wing of the N.C. Museum of Natural Sciences in Raleigh. This world-class facility will provide excellent opportunities to engage with patrons and museum staff on a number of estuarine initiatives. We encourage you to come visit the museum soon to learn more about how modern science is conducted, or simply to see what our sounds look like on a four-story stainless steel globe.

Regards,

Dr. Bill Crowell, APNEP Director

NEW PLAN ADOPTED

On March 14 in Columbia, N.C., APNEP's Policy Board approved the program's ecosystem-based Comprehensive Conservation and Management Plan. The new plan is the first update for the program since 1994.

The plan describes 58 actions that APNEP intends to implement or sustain during the next decade. Each action is designed to improve specific elements of the Albemarle-Pamlico ecosystem.

During the next year, APNEP has prioritized two inter-related initiatives necessary to implement ecosystem-based management in the region. APNEP will work with its partners to develop a monitoring strategy for environmental and management indicators in the region. As a part of that strategy, APNEP will select appropriate indicators for monitoring and appropriate targets for those indicators. Monitoring of these indicators will help promote accountability in the management of the system, help refine APNEP's ecosystem model, and provide insights on the effectiveness of collective management efforts in the region.

Ongoing management efforts are already aligned with the new CCMP, and APNEP staff is already working toward implementation of many actions called for in the plan. For a survey of APNEP's current initiatives, view the initiatives section of the APNEP website.

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Above: Members of the APNEP Policy Board discuss adoption of the program's Comprehensive Conservation and Management Plan.

NEW POLICY BOARD LEADERSHIP

On April 1, the APNEP Policy Board experienced a change in leadership. Tony Reeve completed his term as APNEP's Policy Board chairman. At the APNEP Policy Board meeting, Tony's service was commemorated with a plaque and a standing ovation from the members of the board.

Todd Miller, director the N.C. Coastal Federation, became the new chairman by unanimous vote from the Policy Board. Todd founded the North Carolina Coastal Federation in 1982. He is a coastal North Carolina native and holds a masters degree in city and regional planning from the University of North Carolina-Chapel Hill. He received the Southern Environmental Law Center's Southern Environmental Leadership Award in 2000 and The Old North State Award from the governor in 2007. Todd is a founding board member of Restore America Estuaries and has served on its board with other national leaders in coastal habitat restoration since 1995. As executive director, Todd formulates the federation's goals and policy positions, serves as the federation's spokesperson and provides staff and operations oversight.

Dr. Tom Allen of East Carolina University was elected as the vice-chairman of the Policy Board. Tom is an associate professor in the Department of Geography, director of RENCI at ECU, and co-director of ECU's Center for Geographic Information Science. His research interests include application of GIS, remote sensing, and environmental modeling of coastal and es-



ATLANTIC STURGEON DESIGNATED AN ENDANGERED SPECIES

On April 6, the Atlantic sturgeon was listed as an endangered species. This listing is likely to have substantial and long-lasting impacts on coastal and marine coastal policy throughout the Albemarle-Pamlico region.

The Atlantic sturgeon is a truly remarkable fish. They can grow to 14 feet in length and weigh up to 800 pounds. The fish can live past the age of 60, but many don't mature until their second decade of life.

When a species is listed under in accordance with the Endangered Species Act, it becomes illegal to interact with them ex-



Above: Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*). Photo credit: NOAA.

Left: Tony Reeve (center) is presented with a commemorative plaque for his service as APNEP's Policy Board chairman.

Right, top: a wall mural on a building in downtown Columbia

Right, bottom: This boardwalk and outdoor classroom at Manteo High School was funded by APNEP and built by local partners in 2010.

cept under very limited circumstances. Because these fish migrate between rivers, sounds, and the open ocean, they are susceptible to different threats throughout their range.

The most immediate impact of this listing is likely to be to North Carolina's fisheries. Restrictions or alterations in fishing gear may be required by fishermen to reduce the risk of entangling a sturgeon. Furthermore, accidental capture of too many sturgeon could require the closure of valuable fisheries in estuarine waters.

However, it is likely that increased funding will eventually be available to restore sturgeon habitat. Efforts to improve water quality in the sounds and rivers of our region by APNEP and its partners will be beneficial to the sturgeon's ultimate recovery. APNEP has also supported research to facilitate the removal of barriers for sturgeon and other anadromous fish species such as shad and herring.



WORKING WITH LOCAL GOVERNMENTS TO ANALYZE CLIMATE RISKS TO WATER INFRASTRUCTURE

Due to changing climate patterns, scientists predict that the level of ocean and estuarine waters in the Albemarle-Pamlico region could rise by 3 feet or more by the year 2100. In our topographically flat region, such a rise puts many coastal communities at increasing risks from coastal storms, flooding, and ultimate inundation.

The scale of this issue is daunting in many ways, from its financial implications to the complexity of climate influences on the estuarine ecosystem. Policy approaches to address rising sea levels are varied, and many are the subject of some controversy.

In 2012, APNEP will be working with the towns of Columbia and Manteo to examine the potential impacts of rising sea levels on their wastewater infrastructure. With support from the Environmental Protection Agency and infrastructure experts from the Horsely Witten Group, the project team will work to quantify the risks faced by the towns' infrastructure. In addition, the team will provide engineering and financial recommendations for realistic measures the towns might take to improve their resiliency to coastal hazards and flooding.

The project is expected to have many benefits for the towns, APNEP, and the broader estuarine region. Columbia and Manteo will each have detailed analyses that can be used to support future infrastructure and capital improvement planning, as well as positioning themselves well for sources of grant and loan funding. During the project, APNEP will improve its capacity to provide this service to other interested localities throughout the region. Finally, infrastructure upgrades informed by these analyses will benefit water quality in our region for decades by reducing leaks and overflows that result from coastal storms and slowly rising water levels.

Regardless of where one stands on the issue of climate change, recent hurricanes and other coastal storms have revealed critical vulnerabilities in the region's aging water infrastructure. As identified in APNEP's Comprehensive Conservation and Management Plan, reducing unintended discharges from wastewater facilities is one strategy to help restore and protect the integrity of the estuarine system. These facilities are also critical for coastal residents to maintain their quality of life and the value of their homes. Projects similar to this one, with multiple benefits for the region's environment and people, will likely characterize APNEP's climate approaches in the near future.

ON THE CALENDAR

5/17/12: Policy Board Meeting, Nature Research Center, Raleigh, NC.

NEW FORMAT FOR SOUNDINGS

To deliver program updates on a more regular and timely basis, APNEP will begin publishing Soundings in a blog format on its website, with articles sent to members of the APNEP listserv. As a result, this will be the last publication of Soundings in a newsletter format.

TEACHER INSTITUTE

APNEP has partnered with the UNC Institute for the Environment to again host its annual week-long Sound Learn Teacher Institute. This year's Institute will host high school teachers from July 16-20 in Salter Path, N.C. For more information, visit the [APNEP website](#).

CRFL SYMPOSIUM

On May 31, the 2012 Coastal Recreational Fishing License (CRFL) Symposium will be held at the New Bern Riverfront Convention Center. Money from license fees supports a number of initiatives that benefit marine resources in North Carolina.

Through CRFL funding and the support of many agency partners, APNEP has led efforts to map aquatic grasses in the estuary. Dr. Judd Kenworthy, a member of APNEP's Science and Technical Advisory Committee, will give a presentation on these efforts.

Our mission: To identify, protect and restore the significant resources of the Albemarle-Pamlico estuarine system..

SALTWATER CONNECTIONS

Saltwater Connections is an economic development initiative focused on the communities of Down East, Ocracoke, and Hatteras Island. These communities are associated with the Outer Banks Scenic Byway, which showcases many of the natural and cultural highlights of coastal North Carolina. APNEP staffer Jimmy Johnson and CAC member Karen Willis Amspacher of the Core Sound Waterfowl Museum and Heritage Center have been working with Saltwater Connections as members of their resource team.

The resource team has been working with community members to

document historic sites, local businesses, natural areas and other community assets. These assets can be used by the communities to leverage their unique cultural and natural character for economic development purposes.



CHOWAN HEALTHY WATERS INITIATIVE UNDERWAY



Because the Albemarle-Pamlico watershed extends into Virginia, improving the health of our estuary requires bi-state cooperation. APNEP's most recent example of innovative cross-boundary partnerships is the Chowan Healthy Waters Initiative, led by Virginia Commonwealth University researchers and supported by APNEP and state agencies on both sides of the border.

While most public and private resources are dedicated to restoring im-

paired waters, the preservation of high quality waters is one of the most cost-effective ways to lower drinking water costs, protect against storms and floods, and maintain habitat for fish and game species. Identification of these pristine waters is a necessary first step in the ultimate preservation of these valuable areas by land trusts and other organizations.

Researchers are collecting data throughout the Chowan River basin, and field efforts will continue throughout the summer.

Top: Gillnets and a delivery truck for Avon Seafood. Photo credit: Barbara Garrity-Blake.

Above: Survey efforts for the Healthy Waters Initiative are currently underway near Assamoosik Swamp. Photo credit: David Hopler.

