**Atlantic States Marine Fisheries Commission** 

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## **Economics of Estuaries**

#### Restore America's Estuaries Releases Valuation Report



On May 21, 2008, Jeff Benoit, President of Restore America Estuaries, and Dr. Linwood Pendleton, of The Ocean Foundation's Coastal Ocean Values Center. announced the results of a recent report documenting how coastal areas of the **United States support** economic values in

excess of hundreds of billions of dollars.

"The productivity of our coastlines is up there with the Fortune 500's" said Benoit. "Yet historically, we have overlooked the critical role our coasts play in contributing to the national economy."

According to the report, *The Economic and* Market Value of Coasts and Estuaries: What's At Stake, U.S. coasts and estuaries that have been protected and managed in a sustainable way are worth billions. Beaches, coastal communities, ports, and fragile bays are economic engines that drive and support large

sectors of the national economy. The report focuses on aspects of coasts and estuaries that are most dependent on ecologically healthy conditions. The authors also examined a growing body of research that reveals the economic consequences of environmental change in coastal and estuarine ecosystems.

Estuary regions make up only 13% of the land area of the United States, but are home to 43% of the population. In addition, 40% of the population works in these areas, and the estuaries produce a staggering 49% of the economic output. In eight coastal states, estuary regions are home to 80% or more of the state's economy.

The report highlights the need for a national investment in protecting and restoring vital coastal environments to help grow America's employment, tourism, trade capabilities, and recreational and commercial fisheries. "How well we maintain these resources will be the bellwether for how our economic sectors respond" said Benoit.

"The findings, compiled by a panel of internationally renowned experts, just scratch the surface in our understanding of the value of

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## **Estimated Annual Value of Selected Coastal Recreation** (millions of US\$)

	Beach Going		Recreational Fishing		Wildlife Viewing	
	Low	High	Low	High	Low	High
Southeastern U.S.	\$1,769	\$4,424	\$1,632	\$2,720	\$645	\$6,449
Northeastern U.S.	\$933	\$3,732	\$1,109	\$7,393	\$1,661	\$16,606
U.S. Total	\$5,950	\$29,883	\$9,873	\$26,136	\$4,877	\$48,770

coasts and estuaries," said Pendleton, "It's astonishing. In this report we focus only on those sectors of the economy that depend on ecologically healthy coasts and estuaries, and still the numbers are huge. We are only now coming to grips with the enormity of the economic value and potential from sustainable uses of our coastal resources, and more importantly, the potential economic losses we suffer each year because of underinvestment in coastal protection and restoration."

Findings documented in the report include values gained from healthy coasts, such as:

- Beach going in the United States may contribute up to \$30 billion annually in economic wellbeing to Americans; and
- Recreational fishing along the coasts could contribute between \$10 billion and \$26 billion per year in economic wellbeing.

The report also identifies the threats and costs associated with damaged ecosystems that could be restored:

- 45% of America's petroleum refining capacity is at risk due to wetland loss in the Gulf of Mexico; and
- Dredging in U.S. waterways, often a result of deteriorating environmental conditions, costs the economy nearly \$600 million annually.

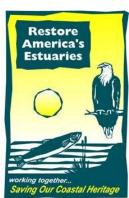
"America's coasts are a national treasure in more ways than one," said Admiral James D. Watkins, (U.S. Navy, Ret.) co-chair of the Joint Ocean Commission Initiative. "Namely, they are a significant and growing economic resource for our nation. If we focus on smart investment in the restoration and preservation of our coastline, we can ensure that this treasure pays dividends for years to come."

The report, available through Restore America's Estuaries' website (www.estuaries.org), is the first step in a longer-term effort by the organization to make the economic value of restoration a more integral part of coastal planning and management. This project was made possible through funding provided by the National Oceanic and Atmospheric Administration, Minerals Management Service, The McKnight Foundation, Shell - World Sponsor of America's Wetland: Campaign to Save

To learn more about this report contact: Jeff Benoit (703) 524-0248, or Dr. Linwood Pendleton (805) 794-8206.

National Wildlife Federation.

Coastal Louisiana, and



# SPOTLIGHT ON RAIN GARDENS

What is a rain garden?

Rain gardens are an environmentally-friendly landscaping technique where a shallow depression is planted with native wetland or wet prairie wildflowers and grasses. Rain gardens are designed to capture runoff from roofs, driveways, patios, and other impervious structures. While rain gardens help to prevent stormwater pollution, they also reduce runoff and prevent flooding. In fact, rain gardens absorb 30% more water into the ground than a conventional patch of lawn. Residents planting rain gardens are able to spend less time mowing lawns. These areas also significantly reduce the need to purchase the pesticides and fertilizers that normally accompany lawn care.

Why does it matter if the water is going into the ground, or into a storm drain?

When water is absorbed into the ground, it refills local and regional aquifers, which helps to reduce the effects of drought in the longer term. Additionally, urban stormwater is often contaminated with lawn fertilizers and pesticides, oil and other fluids that leak from cars, salt and sand from walkways, bacteria from pet waste, and numerous harmful substances that wash off roofs and paved areas. Rain gardens can trap these pollutants and prevent them from entering streams and lakes. Furthermore, intense stormwater flow causes erosion problems, and scours away the natural critters that help keep our streams and rivers healthy.

How do I make a rain garden?

Take a look at *Rain Gardens: A How-to Manual for Homeowners* (<a href="http://cleanwater.uwex.edu/pubs/pdf/">http://cleanwater.uwex.edu/pubs/pdf/</a>



Source: Vivan Felten, NRCS

<u>home.rgmanual.pdf</u>). For a list of native plants good for rain gardens, see: <u>http://myurbangardener.com/files/RainGardenUSDA.pdf</u>.

# AROUND THE COAST: ATLANTIC COAST JOINT VENTURE

In an effort to expand coordination of habitat restoration and protection along the Atlantic coast, the Atlantic Coastal Fish Habitat Partnership (ACFHP) has initiated communication with the Atlantic Coast Joint Venture (ACJV), a bird habitat conservation partnership that covers the same terrestrial range as the ACFHP. While the primary focus of each partnership is on a different class of animals, the habitats considered for conservation often overlap in coastal areas. Therefore, joint discussions and collaboration will make the most of limited resources for fish and birds.

#### **Background**

The ACJV is a partnership focused on the conservation of habitat for native birds in the Atlantic Flyway of the United States from Maine south to Puerto Rico. The joint venture is a partnership of the 18 states and key federal and regional habitat conservation agencies and organizations in the joint venture area. The joint venture was originally formed as a regional partnership focused on the conservation of waterfowl and wetlands under the North American Waterfowl Management



Plan in 1988 and has since broadened its focus to the conservation of habitats for all birds consistent with major national and continental bird conservation plans and the North American Bird Conservation Initiative.

The joint venture partners have recognized the benefits of working together to achieve common goals for bird conservation in the joint venture area. They recognize the benefit of jointly developing a sound biological foundation to assess the status and needs of species, relating population and habitat objectives to specific geographic

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#### AROUND THE COAST: ACJV HISTORY



together at the regional, state, and local scale to implement priority bird conservation projects guided by this biological foundation. By planning and implementing as part of the joint venture, partners can direct limited resources to the highest priority actions, leverage and attract additional funding, and ensure that individual actions are contributing to common goals.

The vision of the ACJV is for, "Partners working together for the conservation of native

bird species in the Atlantic Flyway region of the United States." They are fulfilling this vision with their mission to, "provide a forum for federal, state, regional and local partners to coordinate and improve the effectiveness of bird conservation planning and implementation in the Atlantic Flyway region of the United States."

areas and actions, and evaluating the impact of conservation and management. They also recognize that effective bird conservation can best be achieved by partners working

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#### **ACJV History**

The North American Waterfowl Management Plan (NAWMP) was first signed in 1986 by the United States and Canada in response to the dramatic declines seen in waterfowl populations in the mid 1980s and the realization that there was a need for a coordinated effort to conserve wetlands and waterfowl habitats across North America in order to restore and maintain these waterfowl populations. The plan recommended delivering habitat conservation for waterfowl across the continent through self-directed, regionally-based partnerships known as joint ventures. The original joint ventures were associated with specific waterfowl habitat areas of major concern in the United States and Canada. The ACJV was one of the six original habitat joint ventures. By including all of the states and commonwealths in the U.S. Atlantic Flyway and by following state boundaries, the ACJV partners recognized the importance of being able to plan at the flyway scale and implement at the state scale, as well as the regional and local scale.

The original focus of the ACJV was primarily on coastal wintering and migration habitat for the American black duck, a high priority species under NAWMP. With the addition of southern and inland areas, the focus broadened to include

habitats for all priority waterfowl species in the Atlantic Flyway. Although the ACJV boundary matches the U.S. portion of the Atlantic Flyway administrative boundary, and while the Atlantic Flyway Council and ACJV Management Board share many members, the mission of the joint venture is distinct from that of the flyway council. The primary objective of the flyway council is to establish coordinated management by state and federal agencies that will ensure protection to and restoration of waterfowl and other game bird species to provide sustained annual harvests. It recognizes that the highest priority is to gather factual information from population surveys, banding programs, and various research studies to effectively manage these game bird species. The joint venture complements this mission by facilitating a partnership for planning, implementing and evaluating bird habitat conservation in the flyway.



Source: USFWS

At the same time the NAWMP was being implemented, other aspects of bird conservation were evolving and expanding with the completion or maturation of three other continental or national plans – Partners in Flight, U.S. Shorebird Conservation Plan, and North American Waterbird Conservation Plan – as well as a number of national or rangewide game bird initiatives (e.g., Northern Bobwhite Conservation Initiative, American Woodcock Conservation Plan). The North American Bird Conservation Initiative (NABCI) evolved in the late 1990s as an effort to integrate these bird plans. The partners associated with these plans and with NABCI have looked to joint ventures as a major way to deliver habitat conservation outlined under the plans. In response to these changes, the ACJV mission evolved from habitat

#### AROUND THE COAST: ACJV STRATEGIC PLAN

conservation for waterfowl and wetland-associated species to the conservation of habitats for all birds in the joint venture area; this new and expanded mission was endorsed by the management board in 1999.

Part of the expanded mission was the consideration of a new geographic language for integrating bird conservation initiatives in physiographic regions containing similar habitats, the bird conservation regions (BCRs) adopted by NABCI. BCRs are ecologically distinct regions in North America with similar bird communities, habitats and resource management issues. These ecoregions encompass areas that are similar in their biotic (e.g., plant and wildlife) and abiotic (e.g., soils, drainage patterns, temperature and annual precipitation) characteristics. There are eight BCRs partially or wholly within the ACJV boundary. Joint venture staff and partners are or will be taking a lead role in planning in these BCRs.

#### General Threats, Conservation Needs, and Strategies

The major threats to bird populations in the ACJV area are habitat loss, fragmentation, and degradation. There has been a rapid increase in human population along the Atlantic coast—a total increase of 76% from 1950-2000 including a 12% increase from 1990-2000 (U.S. Census Bureau 2000). This increase in human population has had dramatic impacts on the quantity and quality of available habitat, including a significant loss or conversion of wetlands since 1950. As significant as outright habitat loss has been the fragmentation and degradation of habitats, such as the fragmentation of large patches of forest interior habitats, changes to hydrology in wetlands, introduction of invasive species, increased human disturbance, and increased input of contaminants, nutrients, and sediments into bays.

Restoring and sustaining bird populations in the ACJV area will require an effective, coordinated, and sustained habitat conservation effort. Habitat conservation strategies include protecting remaining habitats in large enough patches to sustain priority species, reconnecting fragmented habitats, restoring habitats that have been lost or converted, enhancing the function and structure of habitats that have been degraded, and managing habitats for priority species. Habitat conservation on public and private lands will be needed involving both traditional and non-traditional partners, and supporting sustainable uses of the land. It is critical that habitat conservation is guided by biological planning that identifies species and habitats at greatest risk, sets population and habitat objectives at multiple scales, and utilizes a landscape approach to target highest priority habitat patches in landscapes, watersheds, and ecoregions. Specific habitat conservation strategies are outlined in the ACJV Waterfowl Implementation Plan and BCR Conservation Plans.

#### The Components of These Plans Include:

- 1) Biological Foundation: Develop, maintain, and communicate a strong scientific foundation and specific products for planning, implementing, and evaluating conservation actions.
- 2) Conservation Coordination and Delivery: Provide a structure and process that attracts partners, directs existing funds to the highest priority conservation actions, leverages and generates new funding, and implements projects that support ACJV goals and objectives.
- 3) Communication and Outreach: Develop effective communication products to attract partners, support existing funding and seek new funds, improve internal relations, and raise awareness of ACJV conservation priorities targeted to specific audiences.

Since 1988, the ACJV has protected 3,404,186 acres, restored 367,810 acres, and enhanced 461,304 acres of habitat for migratory birds. The partnership has received 206 NAWCA grants (totaling nearly \$800 million), with projects involving nearly 500 partners.

For more information on the ACJV, please visit <a href="www.acjv.org">www.acjv.org</a>, or contact: Debra Reynolds

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#### HABITAT HOTLINE ATLANTIC

Jessie Thomas Editor

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### IN THE NEWS

#### MPA Center Unveils new Marine Protected Areas Inventory (MPA Inventory) on www.mpa.gov

The MPA Inventory is based on the previously developed Marine Managed Areas (MMA) Inventory, which was active from 2001-2007. MMAs are a more inclusive category of place-based management than MPAs. Now, the draft definition of "MPA" used in the Revised Draft Framework for Developing the National System of Marine Protected Areas is being used as the criteria for inclusion in the MPA Inventory. The MPA Inventory contains information on nearly 1,800 sites and is the only such dataset in the nation. This unique, comprehensive inventory provides governments and stakeholders with access to information to make better decisions about the current and future use of place-based conservation. The MPA Inventory will be updated as necessary when the Framework becomes final in Summer 2008. It will be a key information resource for nominating eligible sites to the national system. For more information, please contact: Lauren Wenzel, National MPA Center, (301) 713-3100 ext. 136, or Lauren.Wenzel@noaa.gov

#### Court Considers Whether Vessel Owners Are Potentially Liable Under CERCLA for Stirring Up Mud

A recent federal district court decision suggests that vessel owners could be liable at harbors and other waterway sites if the ships' propellers resuspend and/or redistribute contaminated sediments. In City of Waukegan v. National Gypsum Co., Judge Matthew Kennelly indicated in dicta that, under some circumstances, operators of deep draft vessels could be held liable under CERCLA if they "conduct[] operations" in a contaminated harbor that "specifically relate[] to pollution." One such operation, Judge Kennelly opined, was disturbing and/or redistributing PCBs through routine vessel operations. While the discussion is dicta—the court had no vessel operators before it -- the court did find that a cause of action could be stated against a company, Bombardier Motor Corp. of North America ("Bombardier"). The Court would not go as far as imposing liability on companies that hired the vessels, finding that they did not exercise sufficient control over the vessels to be "operators" within the meaning of CERCLA. Source: Meline MacCurdy, Environmental News