

Protecting Wetlands Is Good Business for Local Governments

Eugene Schiller and Shannon Flanagan

Almost everyone has heard the old joke “When you’re up to your neck in alligators, it’s hard to remember that your initial objective was to drain the swamp!” Now, of course, if you drain the swamp, you’ll wish that alligators were your worst problem.

For many years, wetlands were considered wastelands. They were unprotected and often seen as nuisances and useless for human activities. Over time, wetlands were drained, filled, and dredged to make room for residential neighborhoods, highways, and commercial development. As a result, nearly half of the wetlands in the United States have by today been destroyed. Only when wetlands started to disappear at alarming rates did we begin to recognize them as valuable economic resources and understand their essential role in sustaining a stable and healthy environment.

A Vital Concern of Localities

Local governments have a wide range of responsibilities and deliver a vast number of essential services. In general, they



Wetlands protection and development strike a balance in the North Tampa, Florida, area.

are responsible for protecting the public's health and safety, improving and sustaining a community's quality of life, maintaining a healthy economy, balancing individual interests with the interests of the larger community, and providing an equal-opportunity and open process for public involvement. It is at the local level that officials are on the front lines making daily decisions that directly affect almost every aspect of a citizen's life. As a result, local governments are well positioned and often best equipped to understand a community's needs and concerns. Not surprisingly, in

this capacity, local governments play a key and vital role in protecting and restoring wetlands and watersheds while promoting and sustaining economic growth—all in the interests of the general public.

Sounds good, and easy enough. It is even stated in ICMA's Declaration of Ideals #5, which clearly explains a local official's responsibility "to promote a balance between the needs to use and to preserve human, economic, and natural resources." Any experienced local official, however, knows that there are many competing individual and political in-

terests that must be balanced, as well as many specific factors and shrinking resources that must be taken into consideration as a local government plans for and makes decisions about the stewardship of its natural resources.

This article will highlight the benefits of wetlands protection, as well as explain a local government's leadership role in protecting them. In addition, it will provide suggestions and examples of local wetlands protection efforts and will describe resources available to local governments in implementing these programs.

Local Government Case Studies

Restoration of Cockroach Bay: Tampa, Florida

When the Cockroach Bay property was acquired by Hillsborough County in west central Florida, significant portions of it were covered with exotic Brazilian peppers and Australian pine trees. The more than 600 acres purchased consisted of 150 acres of intertidal wetlands, with the balance being fallow farm fields and decommissioned shell pits.

Still, Cockroach Bay often was touted as the "crown jewel" of Tampa Bay. It was a unique mosaic of habitats, an environmental treasure, and an opportunity for governments from the federal to the neighborhood level to work on a single issue of importance to all concerned: restoration of the wetland.

The goals were simple: to provide a diversity of habitats for wildlife, to improve water quality by treating agricultural runoff, to restore sheetflow across the peninsula to the estuary, and to evaluate the effectiveness of the restoration and stormwater treatment. The award-winning collaboration that resulted has become a model for other

communities and an inspiration for those who are just getting started.

The project was dedicated at the signing of the interlocal agreement for the Tampa Bay National Estuary Program, just months before this writing. With partners from all levels of government in attendance, as well as some of the 400 citizen volunteers who helped plant the necessary sea grasses, the entire community celebrated the event.

Weedon Island Preserve: Pinellas County, Florida

Weedon Island is a small preserve located alongside the most densely populated community in Florida. The Weedon Island Preserve is a beautiful and unusual wetland featuring exceptional cultural, environmental, and recreational opportunities. This project is a partnership between the Southwest Florida Water Management District, Pinellas County, and the city of St. Petersburg.

Site preparation began in May 1997 and will conclude sometime before the end of the calendar year. The site is open to canoe enthusiasts now, but the

addition of boardwalks, a four-level observation tower, two smaller platforms, and a fishing pier will give residents and guests a chance to learn while they appreciate the beauties of the small enclave.

Wellfield Rehydration: Hillsborough County, Florida

The Southwest Florida Water Management District, the city of St. Petersburg, and the West Coast Regional Water Supply Authority have a plan to rehydrate stressed wetlands on a wellfield with reclaimed water and stormwater. The wellfield, though owned by St. Petersburg, which is in Pinellas County, and co-operated by St. Petersburg and the water supply authority, is located in nearby Hillsborough County. Despite the water wars that many of these communities have been engaged in for more than 20 years, concern during the past few years has centered on the environmental damage caused by wellfield pumping.

To explore some alternatives, the Section 21 Project has been designed

What Is a Wetland?

Wetlands are the links between water and land. "Wetland" is the collective term for marshes, swamps, bogs, and similar places found in flat, vegetated areas; in low spots in the landscape; and between dry land and water along the edges of streams, rivers, lakes, and coastlines.

Water may be on the surface for only a short time, however, and look dry for the rest of the year, making it hard to "know it when you see it." These wet areas can be found in every county of every state in the United States. If there's

not a wetland in your neighborhood, there's probably one nearby.

Although technical definitions may vary from region to region, all definitions of wetlands contain three basic components: water, vegetation, and soils. The presence of water, whether permanent or periodic, is essential to the development of wetlands, and therefore all wetlands usually contain water for at least part of the year. In terms of vegetation and soils, the frequency and duration of this wetness largely determine the types of plant and animal communities that can live and the types of soils that can

develop in such saturated conditions.

Wetlands vary widely because of regional and local differences in soils, topography, climate, hydrology, water chemistry, vegetation, and other factors, including human disturbance. Two general categories of wetlands are recognized, however: coastal, or tidal, wetlands and inland, or nontidal, wetlands.

Benefits of Wetlands Protection

Only recently have we begun to understand the importance of the benefits

to redirect excess reuse water or summertime stormwater to the stressed wetlands on the wellfields. Though tests still are going on, the initial results look promising. Again, as with Cockroach Bay, some federal dollars have been invested in this program. The hope is that by learning about this technological solution in this community, other localities can apply this model elsewhere.

For more information on the Florida case studies, contact SWFWMD (see SWFWMD Resources on page 22).

Wetland and Watershed Management Plan: Prince William County, Virginia

Three watersheds within urban Prince William County, Virginia, are the subjects of a five-year, interdisciplinary, intergovernmental (federal, state, and local) watershed management study. The purpose of the project is to develop an innovative stormwater management plan for the county's watersheds, which suffer from land development and historic

logging. The plan focuses upon protection of the wetlands through the use of a variety of best management practices (BMPs) and upon restoration of degraded riparian wetlands following the installation of upstream controls.

The watershed management plan involves an extensive assessment of the critical habitat and environmentally sensitive areas, as well as the development of a combination of BMPs and management techniques to protect the watershed. The project involves multiple federal, state, local, and private stakeholders, among them county landowners.

The management plan is funded by several mechanisms, including a stormwater management fee (stormwater utility) that is required monthly of residential and commercial property owners, based on either the type of residence or the square footage of impervious area on their properties.

Wetland Ordinance: Boulder, Colorado

In many portions of the semi-arid West, water may limit the livelihood

and productivity of ecosystems. Soils in many of these places have a moisture deficit because of the lower-than-average rainfall and because of the need to divert limited water supplies to municipal and agricultural uses. In an attempt to assess the condition and productivity of wetlands in the comprehensive planning area, Boulder, in conjunction with the Environmental Protection Agency and the U.S. Army Corps of Engineers, embarked upon an advanced identification project that mapped and identified wetlands as either suitable or unsuitable for the discharge of dredged and fill material.

After prioritizing the wetlands based upon functions and conditions, the city developed a wetland ordinance detailing wetland permit standards, conditions, and mitigation requirements. This ordinance has been instrumental in the continued protection of wetlands through acquisition and planning.

For more information on the Colorado and Virginia case studies, contact the EPA hotline at 1-800/832-7828.

Where to Get Help?

What can you do to find out more about wetland protection for your community? The following resources are available.

ICMA's Home Page

<http://www.icma.org>

For information on wetlands protection, point your browser to ICMA's home page for the latest news for local governments on funding opportunities, publications, case studies, policies, regulations, events, and links to other Web sites. Once you have reached the home page, point your browser to the sections on *Programs and Resources* and *Environmental Assistance*.

EPA's Home Page

<http://www.epa.gov/OWOW>

To learn more about EPA's wetlands and watershed protection programs, access EPA's home page for information on wetlands, oceans, and watersheds. The home page provides newsletters, fact sheets, brochures, publications, guidelines, policies, regulations, and more on wetlands protection, and links the user to other related Web sites. Be sure to check out the "Partnerships" section, which highlights state, tribal, and local efforts.

EPA Wetlands Information Hotline

1-800/832-7828 or (*wetlands-hotline* @epamail.epa.gov)

The toll-free hotline responds to ques-

tions and requests for a wide variety of information about wetlands. The service, available via telephone and e-mail, disseminates information on federal wetlands regulations and policies, the functions and values of wetlands, wetlands agricultural issues, and it distributes more than 100 wetlands documents. Details on EPA's State/Tribal/Local Grant Program also are available through the hotline.

SWFWMD (Southwest Florida Water Management District) Resources

352/796-7211

<http://www.dep.state.fl.us/swfwmd>

To learn more about the local education, conservation, and cooperative funding programs provided by this 16-county special taxing district in southwestern Florida, contact the public communications department at the number above, or browse through the SWFWMD Web site for more details.

Funding for Local Governments

EPA has expanded its State/Tribal Wetlands Program, which helps fund local entities—city, county, and regional governments; regional planning boards; local conservation districts; nonprofit organizations; and others—to develop or refine existing wetlands protection programs. This grant program will support projects in two broad categories: wetlands/watershed protection projects and river corridor/wetlands restoration. A 25 percent

funding match is required for all projects. To learn more about the grant program, call the EPA Wetlands Hotline for the regional contact person in your area.

Agencies Providing Local Assistance

For more information on local wetlands requirements, some of the following local agencies may be able to assist you in your efforts. Note: Depending on your region, some of these agencies may or may not be able to assist you.

- Local planning commission or district.
- State, regional, or county planning agency.
- Regional council of governments (COG), state association, or municipal league.
- State department of environmental protection.
- Environmental Protection Agency regional office.
- Army Corps of Engineers district office.
- USDA Forest Service Extension office.
- State soil and water conservation commission.
- Natural Resource Conservation Service (NRCS) state/district conservationists.
- Local land trust organizations and foundations.
- Local public/private partnerships.
- Colleges and universities in your area.

that wetlands provide. Far from being useless, insect-ridden places, wetlands provide values including natural water-quality improvement, flood protection, fish and wildlife habitat, recreational and educational opportunities, and natural products for our economy. Wetlands also provide critical ecological benefits within watersheds and are among the most biologi-

cally productive natural ecosystems in the world.

Clean Water. Wetlands have important filtering capabilities for intercepting runoff and pollutants from higher, dry land before the runoff reaches open water. As the runoff passes through the wetlands, the unique combination of plants and soils can

filter out toxic substances like fertilizers and pesticides before they drain off onto our streets, parking lots, and farms. By performing this filtering function, wetlands also save us a great deal of money. For example, without the Congaree Bottomland Hardwood Swamp in South Carolina, the area would need a \$5 million wastewater treatment plant.

Flood Protection. In addition to protecting water quality, wetlands function as natural sponges that hold and slowly release surface water, rain, snowmelt, groundwater, and flood waters. As a result, the holding capacity of wetlands helps control floods. Wetlands within and downstream of urban communities are particularly valuable because they counteract the increased rate and volume of surface-water runoff from pavements and buildings. When wetlands are destroyed or degraded, neighborhoods, streets, and adjacent properties can flood.

Fish and Wildlife Habitat. Wetlands are unique and wonderful habitat for a wide variety of plant and animal species. More than one-third of the nation's threatened and endangered species live only in wetlands, and nearly one-half of these species use wetlands at some point in their lives. For instance, most commercial and game fish breed and raise their young in coastal marshes and estuaries.

Recreation and Education. Many people like to visit wetlands for fishing, birdwatching, photography, canoeing, boating, and other leisure activities. More than half of all U.S. adults (98 million) hunt, fish, birdwatch, or photograph wildlife. Others appreciate these wonderlands through hiking, boating, and other recreational activities. In addition, many schools and universities use them as hands-on laboratories for ecological courses.

Natural Products for the Economy. Wetlands furnish a wealth of natural products, including fish, timber, wild rice, and furs. For example, in the southeastern United States, 96 percent of the commercial catch and over 50 percent of the recreational harvest are fish and shellfish that depend on the estuary/coastal wetland system. Waterfowl hunters spend over \$600 million annually in pursuit of wetlands-dependent birds.

How Can Local Governments Protect Wetlands?

As described above, wetlands provide a variety of benefits to a community's quality of life, economic well-being, and environmental health. Within watersheds, they are vital to the survival of various animal and plant communities and serve critical functions such as flood control and water quality, to name just a few. As a result, many of these valuable wetlands prevent potentially extensive and costly damage to local properties and improve the quality of drinking-water sources, while serving as recreational and educational venues for citizens. A number of examples of local wetland protection efforts and the lessons learned from these experiences are presented in the case studies accompanying this article.

The Local Challenge

The effective protection and management of wetlands are highly complex processes requiring the consideration of numerous—and often competing—public interest concerns; demanding an understanding of federal, state, and local regulations; and involving the careful cultivation of active public education and involvement. Furthermore, local officials must balance long-term critical habitat goals with competing public concerns, political interests, and the development and economic rights of individual landowners and businesses.

Traditionally, little coordination or connection has been made between local land-use planning efforts and wetlands protection initiatives, or among federal, state, and local agencies. Unfortunately, unclear and inconsistent wetland policies and regulations often leave citizens and local government officials without the knowledge and tools they need to implement these initiatives.



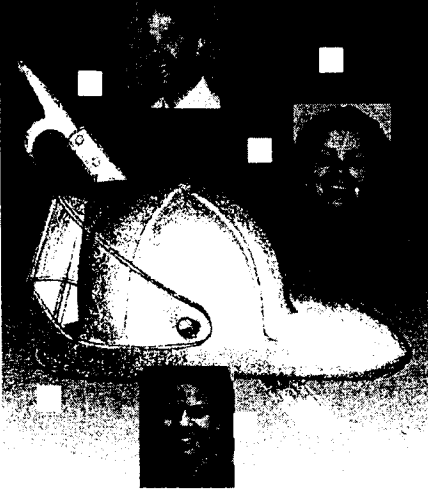
A riverine wetland provides essential food and water for a wide variety of plant and animal species.

Like many other issues facing localities, wetlands protection efforts require a knowledge of, and the ability to communicate effectively about, wetlands protection strategies, land use regulations, planning techniques, and potential economic impacts within a community. Although this may seem like a daunting challenge, many local governments around the country are successfully coordinating wetlands protection initiatives in the interest of their communities.

Implementing Wetlands Protection: The Need for Local Action

As many of the case studies show, local governments have been instrumental in coordinating and facilitating successful wetlands protection efforts. In most cases, without the local government's involvement, leadership, and land use authority to initiate such activities, these projects would not have been so success-

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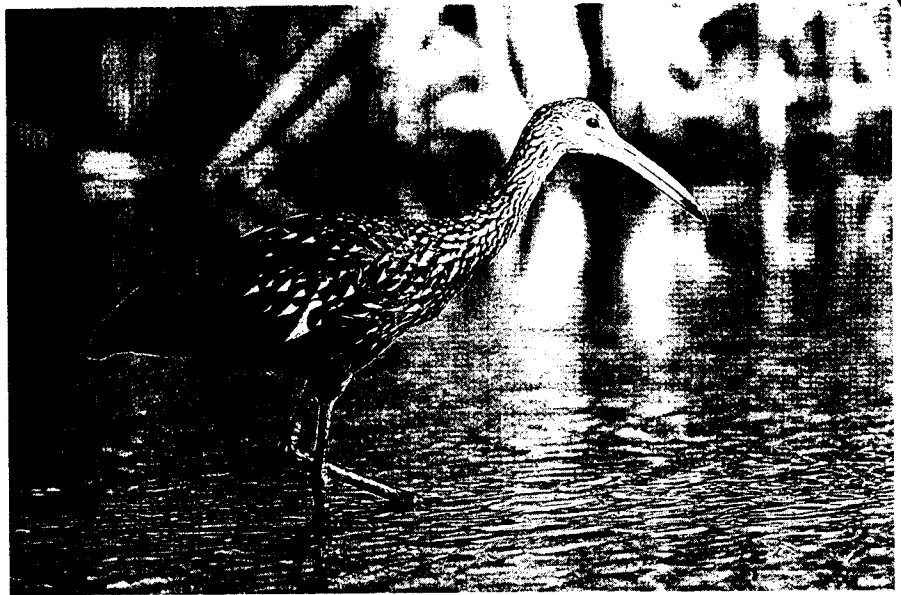
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A coastal wetland species lives in harmony with the natural habitat.

ful. Not only does success require the commitment of local officials but also it requires the commitment of citizens, including business leaders and landowners, as well as careful comprehensive planning, an understanding of regulatory requirements, effective public education, successful protection and restoration efforts, financial assistance, and open community involvement.

Land Use and Comprehensive Planning. Local governments have the critical responsibility of regulating land use and development to maintain public health and safety, to ensure environmental protection, and to achieve local economic stability. The most common land use management tool, zoning, is often used at the local level and typically provides the local regulatory framework for protecting wetland and watershed resources.

In this capacity, zoning generally separates a jurisdiction into land use zones and districts and designates permitted, prohibited, and conditional uses. For example, zoning is used as a means of guiding development, whether residential or commercial, to less environmentally sensitive areas.

In addition to zoning authority, local

governments have the authority to develop local and regional comprehensive plans. Comprehensive planning represents a nonregulatory approach to wetlands protection while building a framework for broad stakeholder input. Many local governments use these plans as opportunities to identify important natural-resource, transportation, economic, aesthetic, and other quality-of-life goals and objectives. This part of the planning process gives a local government the chance to involve the community and to explore the balance between natural-resource goals and other factors like the economic viability of the community.

Public Education/Involvement.

Central to the success of all these programs is an informed and engaged public. As the "green ethic" has taken hold in the last 25 years, people have increasingly been working to ensure that environmental and economic goals are in balance. To reach the goal of sustainable growth, we must ensure that our environmental systems remain in balance with our economic development and growth. As members of the public learn more, they expect more from local government and from regional governments, too, for that matter. For instance,

ICMA Gets Soaked with Wetlands Issues

ICMA—in conjunction with the U.S. Environmental Protection Agency (EPA) Office of Wetlands, Oceans, and Watersheds—has launched an educational and public outreach program to promote wetlands protection activities and to increase local government and community awareness of these issues. Program activities educate local officials on wetlands management issues and promote the conservation of wetlands through local and regional planning processes.

More specifically, this outreach effort includes developing educational materials like brochures, case studies, and videos to be distributed to local government managers and other local officials nationwide. ICMA also provides continuous, up-to-date information on wetlands protection on its home page (see resource box in this article).

To gain a better understanding of local government issues and concerns surrounding wetlands protection, ICMA and EPA hosted a focus-group session at the ICMA 1996 Annual Conference in Washington, D.C. The group included 13 representatives of local and regional governments, agricultural and tribal entities, and development and consulting interests from across the nation. Participants identified a set of recommendations for ICMA and EPA to consider as they assist managers and their local governments with wetland protection initiatives. General recommendations included the need for technical and financial assistance, and examples of effective local wetlands protection programs to share with other local governments.

EPA's wetlands division is working with a variety of partners—states, tribes, local governments, private landowners, and the regulated community—in its efforts to protect and restore the nation's wetlands. In addition to carrying out a number of regulatory responsibilities under Section 404 of the Clean Water Act, EPA administers the State/Tribal/Local Wetlands Grant Program to develop and implement local wetland projects involving cooperative restoration, consensus-based watershed planning, and joint public/private partnerships.

For more information, contact Shannon Flanagan, senior project manager at ICMA, 202/962-3540, or e-mail, sflanagan@icma.org; Reggie Parrish, U.S. EPA Wetlands Division, 202/260-6095; or Michael Boots, U.S. EPA Wetlands Division, 202/260-2315.

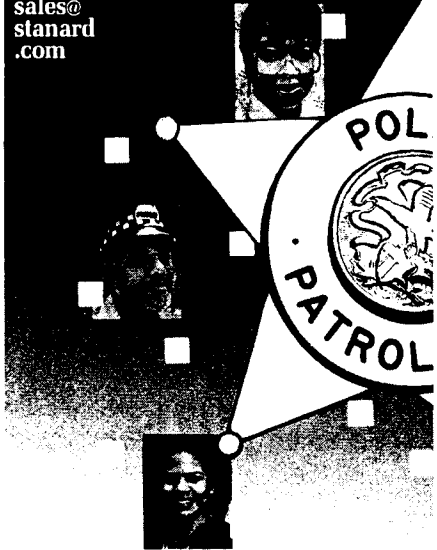
This program is supported by the U.S. Environmental Protection Agency.

the Southwest Florida Water Management District (SWFWMD) has an extensive in-school and public education/involvement program in place. Ranging from specific programs to community grants for local efforts, many SWFWMD activities are designed to engage people in water issues and natural-resource protection issues where they matter most—in their own neighborhoods.

Protection and Restoration. Because the majority of the nation's remaining wetlands are found on private lands, a key element of effective wet-

lands conservation is the permanent protection of these sensitive environmental areas. In Florida, two programs have been implemented to acquire land for public ownership and protection. Preservation 2000 is a state trust fund established to buy land so that it can never be developed and will always be available for public enjoyment. Save Our Rivers is another such program. To date, the SWFWMD has acquired approximately 275,000 acres on behalf of the public. Of this acreage, about 95 percent is open for recreational purposes that do not harm the land or the wetlands.

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RFP's Welcome

In addition to the long-term protection of these resources, successful restoration of degraded wetlands is another important opportunity for local action. Like many state and local government organizations, SWFWMD is actively involved in the restoration of wetlands. Working with local governments, the regional agency funds up to 50 percent of the costs of a project.

Financial Tools. Like everything else, protecting wetlands costs money. A variety of financial techniques can be used by local governments to generate revenues and to create economic incentives for local protection and restoration efforts. Some funding mechanisms include grants, fees, taxes, debt financing, voluntary support, and private sector contributions. A local official may use these sources to finance wetland protection activities or to form public/private partnerships, as the SWFWMD has successfully done through many of its wetlands protection efforts. Additionally, many financial mechanisms can be used to offer economic incentives that encourage individuals to protect or restore wetlands while economically benefiting from them.


Rethinking Wetlands Protection

Clearly, local governments face a big challenge in protecting their communities' wetlands resources. To meet the challenge of implementing these efforts successfully, enthusiastic local government officials and an informed, energetic citizenry are needed.

These factors alone, however, are not enough to make an effective change. It takes more. It takes a renewed commitment in the way local leaders think about approaching the challenges we face every day in our communities. These challenges are more complicated and have implications far beyond simply protecting wetlands resources. The process of rethinking how to approach wetlands protection is only the beginning of how we solve in the public interest many

of the complex, interrelated environmental, economic, and social challenges of today.

Local officials are recognizing the need to adopt an integrated, "big picture" approach to environmental protection. Innovative local government management efforts, in the form of comprehensive planning activities, are continuing to emerge. For example, watershed planning, ecosystem protection, smart growth plans, and sustainable development efforts are all being explored and actively pursued. In this spirit, we also must be aware of how our decisions affect future generations not only in the short term but the long term as well. In other words, "Don't kill the environmental goose that lays the golden eggs."

It is our hope that this article will give local government managers a road map of useful information and resources to get them started on addressing this continuing challenge. It is up to all of us, as local officials, to take a closer look at protecting our natural resources and improving the quality of life within our communities. Protecting wetlands is good business. 

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