



# Works in Progress

Winter 2004

## Water Issues Converge, Déjà Vu Threatens, Hope Rises

When last year's session of the General Assembly ended with an 11<sup>th</sup> hour victory for those of us wanting protection of water as a public resource, many Georgians understandably exhaled with relief. In the meantime, the *Georgia Water Coalition* has rallied support from dozens of cities and counties that passed resolutions expressing similar concerns. As a result, we now look forward to a state water management bill, likely to pass this year, establishing a rational procedure for meeting future needs.

As promising as this may be, Georgia is hardly out of the woods with regard to responsible water management. Inherent in effective water planning will be some very tough choices that require hammering out compromises, ideally guided by the best possible science available.

Some of these choices have enormous implications for the interests of coastal Georgia. For instance:

- ▶ How much water can be diverted from coastal river systems to supply the needs of rapidly urbanizing Atlanta, Macon, Augusta, and other cities without harming the productivity and health of our tidal estuaries – essential fish habitat worth billions annually to the coastal economy?
- ▶ If farm irrigation continues to skyrocket, how will water supplies for other purposes be affected, and at what cost to non-agricultural users?
- ▶ To what extent does the use of groundwater and filling of wetlands harm the health and diversity of wildlife habitat, including coastal marshes and swamps, especially during drought?
- ▶ How feasible is it to conserve water by improving the efficiency of major industrial water users, how much would this cost, and should the public subsidize it?
- ▶ Can Georgia's rapid urban and rural development continue while still protecting our public health and quality of life?

Every one of these sweeping questions (and many others) must be answered, and doing so begs for at least three things that have been lacking in Georgia's regulatory history: (1) consistent objectivity, (2) disciplined adherence to plans, regulations, and procedures, and (3) dedicated application of science, with proper precaution when science is inconclusive and risks significant.

In the late 1980's the state's growth policies took a promising turn, leading to the adoption of the Planning Act (Growth Strategies Program) in 1989. This ambitious undertaking set forth statewide planning standards to be used by all cities and counties for them to remain eligible for receiving many state funds. The bill also provided procedures for analyzing and

responding to "developments of regional importance" and protecting "regionally important resources."

Yet, nearly fifteen years later, despite the admitted technical advancements in local and state planning, all too many of the same problems raise their fearsome heads. We still suffer from the cumulative effects of many small acts of negligence, and a few huge ones, produced by erratic use of plans, regulations, and procedures.

For example, DNR's Environmental Protection Division (EPD) has long noted that the biggest single threat to water quality is non-point source pollution – water runoff carrying silt, yard chemicals, automotive toxins, farm and septic waste, and numerous other contaminants into our rivers. But attempts to control these pollutants through the Soil Erosion and Sedimentation Act have proven elusive, primarily due to a lack of consistent enforcement by state and local officials.

Powerful, often misleading, incentives have driven decisions approving resource use (and abuse of procedures), while no motives of comparable clout have protected the long-term public interest. Consider that EPD already requires local water supply plans in the 24-county area using the Floridan aquifer, but these plans have been seldom used by EPD when approving water withdrawal permits. Under such circumstances, we should ask if rationality is even possible.

Georgia's economic goals simply must be linked to our environmental realities so that we achieve accountable use of resources within the natural capacity of our ecosystems. As we move ahead, it is imperative that responsible economic interests, as well as public health and environment, are included in a unified calculus of decision-making. Likewise, we must be willing to budget far more for environmental research and its consistent application in refining and enforcing regulations. Above all, Georgians must be willing to share nature's wealth with future generations, realistically recognizing both the potential and the limits of our bountiful state.

With the recent appointment of Carol Couch as the new director of the Environmental Protection Division, we are hopeful that these worthy goals will be pursued with unprecedented commitment. The Center will continue working with our members and the Georgia Water Coalition toward that important objective.

- David Kyler, Executive Director

*The Georgia Water Coalition is a diverse group of 72 organizations representing over 160,000 Georgians, working to ensure that Georgia's surface and ground waters continue to be a public resource, managed in the public interest. For more information about water issues or to become a partner organization, please go to [www.georgiawater.org](http://www.georgiawater.org).*

## Renowned Scientist Discusses Barrier Islands at Center's Annual Meeting

On December 6, 2003 noted author, lecturer, and environmental scientist, Dr. Orrin Pilkey, spoke to an attentive audience of more than 60 people at the Center's annual meeting. His presentation, richly enhanced with numerous color slides, described the fascinating variety, environmental complexity, and ever-changing nature of barrier islands throughout the world. The event was held at the Coastal Heritage Center on St. Simons Island.



Orrin H. Pilkey is James B. Duke Professor Emeritus of Geology and director of the Program for the Study of Developed Shorelines at Duke University. He is the recipient of many awards, including the Francis Shepard Award for Excellence in Marine Geology, and the author or editor of many books, including *The Beaches Are Moving: The Drowning of America's Shoreline*, *Living by the Rules of the Sea*, and *The Corps and the Shore*. His latest book, *A Celebration of the World's Barrier Islands* has been widely acclaimed for both its beauty and content.

Dr. Pilkey emphasized the importance of protecting the "sand-sharing" system that naturally carries sand from offshore shoals and sandbars to ocean beaches. Audience members asked several questions about a recent county proposal to add sand to the beach on St. Simons Island. Based on his observations of the St. Simons beach earlier in the day and his years of experience as a coastal

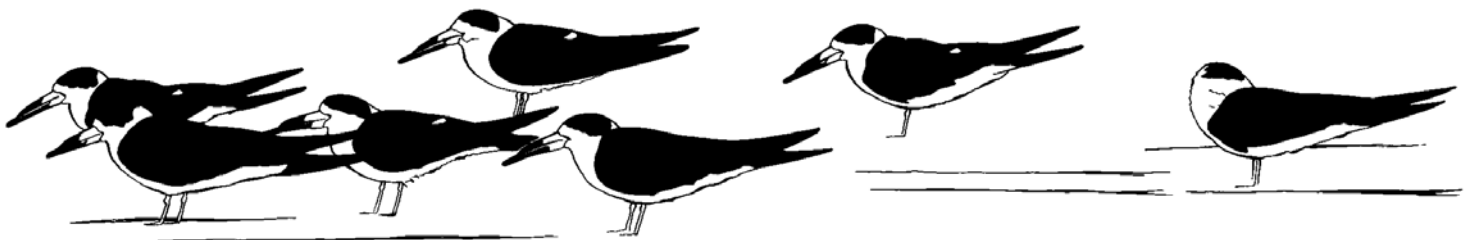
geologist, Pilkey advised that the current proposal to artificially "nourish" the beach here was unwarranted. Further, he warned that such a venture would cost millions, last no more than three to five years, and could significantly detract from the beach's appeal due to the composition, contour, and movement of materials applied.

Accompanying Dr. Pilkey and also speaking to the group was his colleague, Mary Edna Fraser, who collaborated with Pilkey on

his latest book about barrier islands. Fraser displayed slides showing a dazzling array of her artistic renderings of barrier islands and related subjects done in batik, an ancient method of transferring colors to cloth.

Mary Edna Fraser is a renowned artist specializing in the production of large-scale batiks, many based on aerial photographs. Her work has been exhibited at the Smithsonian National Air and Space Museum, the Duke University Museum of Art, the National Science Foundation, and the National Academy of Sciences.

Following their presentations, the authors signed copies of their book, *A Celebration of the World's Barrier Islands*, which were available for sale. Center members, board members, and guests mingled over light hors d'oeuvres and wine while sharing comments about the evening's presentations and related coastal issues.





## Center Comments on Coastal Permitting

Center executive director David Kyler testified at a public hearing called by Georgia General Assembly Representative Jerry Keen, who represents District 174. The reason for the hearing was to gather comments about delays allegedly being incurred by permit applicants (mostly developers) under the Coastal Marshlands Protection Act (CMPA). About forty people attended the meeting, and of the ten who gave testimony, all but Kyler were developers.

*Note: The Center for a Sustainable Coast has been represented by the Southern Environmental Law Center in appealing two CMP permits: Emerald Pointe in Chatham County, and Man Head Marina in Glynn County. In both these cases, the objective was to improve the standards used by the state in reviewing the application.*

Rep. Keen explained that he intends to correct alleged problems through legislation that would create a requirement for those appealing a permit to post a bond to cover expected costs of the state and permit applicant. Under this proposal, if an appeal were denied, the appellant’s bond would be used to pay for the legal fees, added staff costs, and delays incurred by the state and the permit applicant.

Rep. Keen’s opening remarks and claims made by various developers asserted that permit appeals have been increasing in recent years. Susan Shipman, director of the Coastal Resources Division (CRD) of the Georgia Department of Natural Resources (DNR), reported that there had been only eight active appeals when she became director in 2002, and that two new appeals have been filed since then.

In his testimony, Mr. Kyler not only underscored the very limited number of appeals actually being filed compared with the number of permits issued, but also stressed the need for more complete review of permit applications by CRD staff. Investing more in state review would reduce the likelihood of future appeals, he reasoned, and could also speed up the review process, helping to lessen further delays.

Referencing comments made by a local developer, Kyler noted that adopting a reasonable processing fee charged to permit applicants could help generate added funds needed for expanded review capacity. “Compared with the cost of delays for permit review reported by developers, such fees would be minuscule,” said Kyler, “and could help both sides of this issue with faster and more complete review.”

These remarks paralleled a series of statements that Kyler has made on the Center’s behalf at recent permit hearings, where he urged the Coastal Marshlands Protection Committee to raise revenues to cover escalating permit review, monitoring, and enforcement costs by imposing a proportionate application fee.

Kyler further elaborated to justify the need for greater environmental enforcement efforts.

- ▶ In proportion to the coastal region’s growth, Coastal Resource Division’s scale of operation is barely keeping pace. Population has doubled in the past 30 years and will double again to a million or more by 2030. Though the state budget has increased, funds for environmental protection have fallen way behind Georgia’s growth, according to a recent report by Georgia State University.
- ▶ The number of docks permitted in the past eight years alone is 1,688, over 200 annually on average. In just 3 years (1999, 2000 & 2001), over 10,000 homes were built in the coastal region, with various adverse implications for natural resources.
- ▶ Moreover, as the density of development increases, analyzing impacts of proposed projects becomes more complex due to the rising potential for actions of one property owner to adversely affect the interests of another.

### **Budgeting limitations and funding alternatives**

Given Georgia’s constitutional limitations on budgeting (no deficit spending), and increasingly vocal complaints by developers about the cost of delays caused by CRD review of applications for Coastal Marshland Protection permits, it seems perfectly reasonable to adopt a practice of imposing fees to assist in offsetting DNR costs of review and enforcement. These fees should be based on proportionate costs incurred by DNR in processing and enforcing permits (if approved) under the CMP program.

Although fees would add slightly to the cost of development, this amount would be minor compared with the cost of delays for some project permits. One developer reported that he incurred over \$750,000 in interest due to delays in receiving his CMP permit for a project of 600 acres; a per-acre fee of \$100 would generate \$60,000, much lower than his interest cost.

Whatever the amount of a proper fee, it would be negligible compared with the cost of the land and structures built on proposed project sites, adding little to the homebuyer’s burden, assuming the project gets built. Revenues generated by such fees could be used to expand and train DNR/CRD staff, thereby reducing the time required to properly review permits, set permit conditions, and enforce these conditions.

Another likely benefit is that with sufficient funding the public would receive more consistent and thorough analysis of information, essential to improving protection of coastal resources through both permit review and enforcement.

*Continued next page...*



If so, adopting commensurate fees would reduce the need to appeal permits, thereby avoiding legal costs and project delays, assuming regulations are carefully followed. The

state's capacity to evaluate the effectiveness of permit conditions, and to upgrade environmental protection by refining such conditions, could also be enhanced. ✓

**The Costs, Benefits and Implications of  
Appealing Environmental Permits**

**At the public hearing it was alleged that "Permit appeals cost developers and the state money."**

**While this statement is true, if permit appeals have merit (and recent court decisions make it clear that they do), the public ultimately benefits by rulings that strengthen how the law is interpreted and applied.**

**In other words, the long-term costs of not appealing may actually be greater than appealing, but of course this cannot be documented because things not done are inherently unobservable.**

**Resources protected by successful permit appeals have tremendous social and economic value. The coastal public, including 40,000 people working in nature-based activities worth over a billion dollars annually (mostly in the private sector), depend on the protection of Georgia's coastal environment.**

**Thus, while appeals cost money, with merited judicial findings properly implemented, they can produce a substantial and lasting net benefit, which has never been documented and even seldom considered.**

**If the proposed bonding requirement is adopted into state law, such benefits would be less likely because there would be a substantial financial burden imposed on those seeking to protect the public interest through future permit appeals.**



*Wetlands Protection in Georgia, continued...*

Other states have adopted special measures to help safeguard freshwater wetlands because of the supreme importance of wetlands in flood control, protection of water quality, replenishment of water supply, and their great value as wildlife habitat for a wide diversity of fish and birds. Lacking such state regulations, Georgia depends solely on federal enforcement of the Clean Water Act, principally under Section 404 governing the filling and dredging of wetlands.

These federal regulations are administered by the Army Corps of Engineers, with varying degrees of effectiveness, and by most assessments, produce erratic, unreliable results. One major issue of concern is the Corps' response to a 2001 Supreme Court decision, which has led to the unjustified abandonment of controls protecting so-called "isolated" wetlands.

Such areas, described as unconnected to wetlands immediately adjacent to rivers and streams, are in fact often interlinked to waterways by way of groundwater. Though these areas are now left unprotected by the Corps as isolated wetlands they provide many if not all the same functions as "jurisdictional" wetlands that remain protected.

***Because wetlands functions are extremely important to water quality and water supply, and of enormous economic value to our coast, we strongly believe that Georgia should adopt and enforce measures using state authority to protect all wetlands in the public interest.***

**About Wetlands Protection in Georgia**

A common misconception is that Georgia has state regulations that protect all wetlands. Because Georgia has a nationally known program for managing salt-water (tidal) marshes under the Coastal Marshlands Protection Act, it is often assumed that similar state laws are in place for freshwater wetlands. Yet, despite the vital need for such state protections, none exist in Georgia.

*Continued at right*



The following article was forwarded to the Center by the National Wildlife Federation on Monday, 2 Feb 2004. Excerpts selected by Center staff.

## Report Hits at Failure to Manage Wetlands

By Amanda Brown, Environment Correspondent, PA News

**Goods and services worth [at least] 70 billion dollars could be at risk annually** if governments around the world fail to manage wetlands sustainably, according to a report today.

The report, the *Economic Values of the World's Wetland*, is the first comprehensive overview of the economic values of the world's wetlands.

It analyses the 89 existing valuation studies and uses a database covering a wetland area of 243,000 square miles, putting the annual value of wetlands at a very conservative [absolute minimum of] 3.4 billion dollars.

But the report says that extending this figure using [an alternate] global wetland area estimate of 4.9 million square miles, the annual global value of wetlands could be worth as much as 70 billion dollars.

The report shows that amenity, recreation, flood control, fishing and water filtration are the most valued functions of wetlands.

Asian wetlands have an economic value three times greater than those of North America despite the fact that the total area of Asia's wetlands analysed in this report is less than half of North America's. This is due to a higher population density, which means high demand for wetland goods and services.

However, according to the report,

*billions of dollars are spent each year on the draining of wetlands for irrigation, agriculture and other land uses for immediate short-term economic benefits,*

*frequently justified by over-confident production figures, ignoring the long term environmental and economic arguments to manage wetlands properly.*

**Poor management and the destruction of wetlands has led to increased flooding, water contamination and water shortages worldwide** and costs governments large amounts of time and money to repair the damage or build and maintain huge unsustainable flood defenses.

Dr Kirsten Schuyt, World Wildlife Fund International's Resource Economist and co-author of the report, said:

*“Decision-makers often have insufficient understanding of the value of wetlands and fail to consider their protection as a serious issue.”*

“Wetlands are often [incorrectly] perceived to have little or no economic value compared to land use activities which may yield more visible and immediate economic benefits.”

The report highlights that more than half of the world's wetlands have disappeared since 1900 as a result of human population increase and development.

For example in the Everglades in Florida rapid population increase, development, and urban sprawl have destroyed half of the original wetlands.

*Managing wetlands sustainably will significantly contribute to reaching the targets set at the World Summit on Sustainable Development of halving the number of people without adequate water and sanitation services by 2015.*

### **Center for a Sustainable Coast**

**Works to Defend & Sustain Coastal Georgia’s Natural Resources,**

**which account for:**

- **At least 20% of our regional economy**
- **More than 40,000 jobs vital to coastal communities**
- **\$1 billion a year in business activity**
- **Billions in property value**
- **Our priceless quality of life**

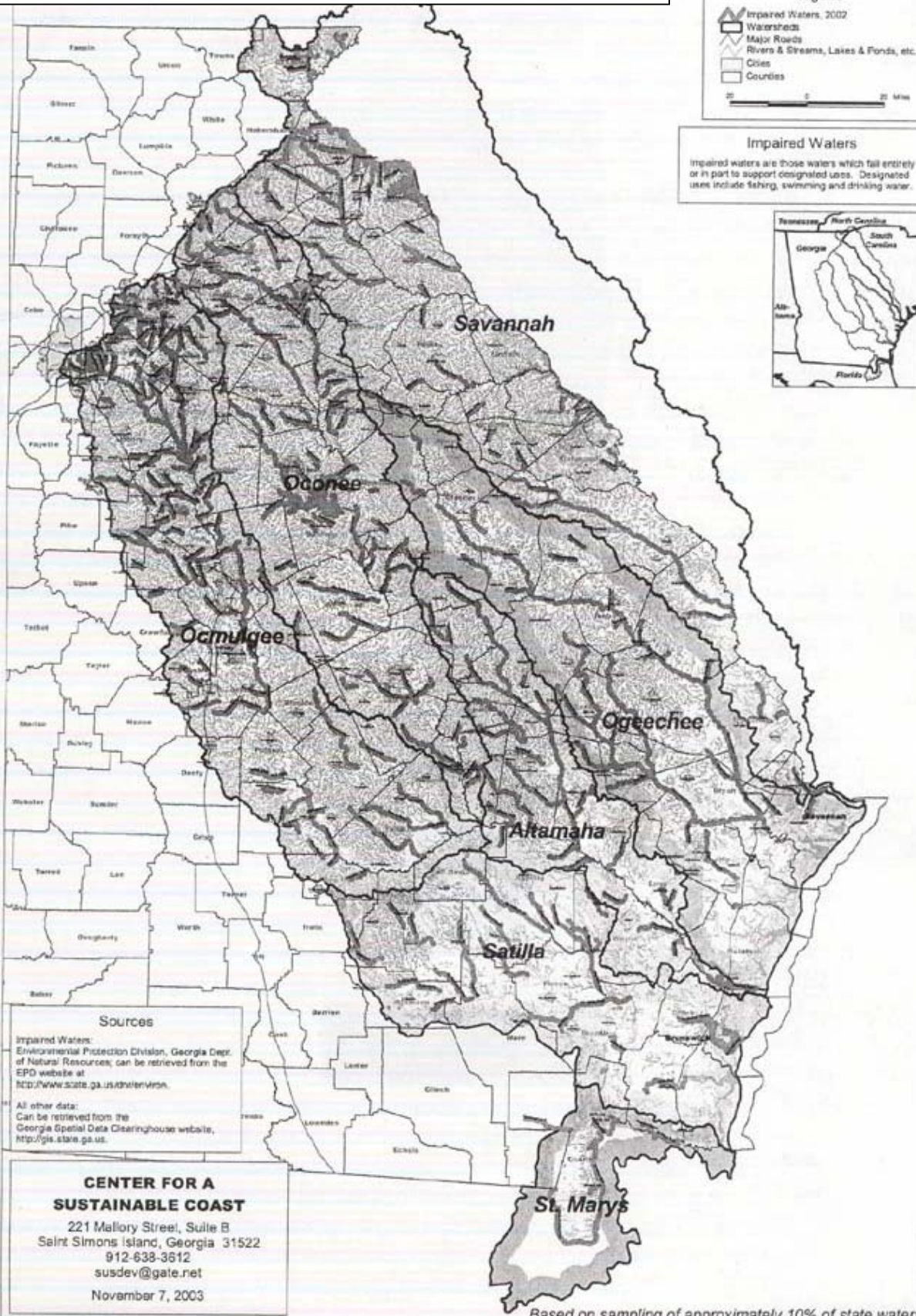
*☞ If you care about coastal Georgia, support our work! ☞*

*Please become a sponsor by sending a tax-deductible donation today.*

**Special Thanks to all  
who have already contributed!**



Impaired Waterways within the Coastal Georgia Watershed



## “State of the Coast”

# UPDATE

## Impaired Waters in Our Coastal Watersheds

**Last year, with the help of a start-up grant from The Savannah Presbytery, the Center began a comprehensive analysis of coastal Georgia's environment, development trends, and forecasted future, which we will publish as a “State of the Coast Report.” The purpose of the project is to educate the public, elected officials, and other decision-makers about important aspects of our region's conditions, trends, and development alternatives.**

**Based on information provided in this report, we will advocate policies and actions that reflect the interests of current and future generations in choices made by policy-makers, voters, consumers, investors, businesses, and property owners. Until the final report is ready next year, we are releasing segments of particular interest as they become available. Presented here is an important aspect of the State of the Coast Report describing conditions of one of the region's most vital resources, upon which so much else depends: WATER. We encourage your careful review of this information and welcome your comments about it.**

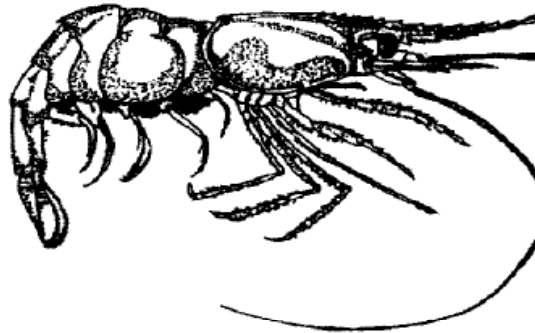
The map on page 6 shows the waters known to be “impaired” within the watersheds that drain through the coastal region and into Georgia's tidal wetlands, estuaries, and other intertidal and marine waters. “Impaired waters” are defined as those that fail to support (entirely or partially) their “designated uses” for fishing, and/or swimming, and/or drinking. These findings are reported by EPD to EPA every two years. The red line segments depict impaired waters – again, based on only limited sampling. It is obvious that water quality problems need to be addressed in future efforts to improve protection of coastal ecosystems.

What is not clear, from either this mapping or any sources we have yet discovered, is the extent to which water quality has changed since sampling records were first kept over 30 years ago. There are a number of reasons for this ambiguity:

- Sampling methods and targets (areas and contaminants or impairment types) have changed.
- New regulated materials have been introduced and some earlier ones are now prohibited.
- Though the portion of regulated (permitted) discharges is far greater now, there are many more discharges than in the past – therefore the cumulative amount of contaminants released may be higher.

According to EPA's *Toxic Release Inventory*, the amount of toxic materials entering Georgia waters through permitted activities increased by more than 80% between 1989 and 1998, *not including the release of new contaminants that were unregulated in 1989.*

- The challenge of evaluating and improving water quality is also complicated by the relationship between local and state government, and between designated authorities within state government agencies.



- Since only cities and counties can directly control land use (zoning, building location and site design), the state has only limited authority for controlling many aspects of non-point source pollution.

- State authority for protecting tidal marshes under the Coastal Marshlands Protection Act is exercised within the Coastal Resources Division of DNR, which also has authority over ocean beachfront development

under the Shore Protection Act. The Environmental Protection Division in Atlanta administers all other environmental protection regulations. Although there are “recommended” policies for coordinating these two authorities through the Coastal Management Program, they have been seldom used.

- Even within EPD, those concerned with point-source pollution permitting under the National Pollution Discharge Elimination System (NPDES) of the Clean Water Act tend to view non-point source problems as unrelated, even when some of the same contaminants may affect the identical water body.

***Please support this project—  
make your tax-deductible donation  
and help us complete  
the extensive work ahead  
on our  
“State of the Coast”  
Report.***