

The Charlotte Harbor Estuarine System

and its major tributaries

How the Clean Water Act
protects these waters? But
only if you **INSIST!!!**

By

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Protecting our Waters

How did it get so difficult?

■ Population Growth

Charlotte Cty - 160,315 (13% increase 2000 to 2006)

Sarasota Cty - 379,386 (16% increase 2000 to 2006)

Growth = Pollution

Nutrients are the biggest threat to our estuaries

Nutrient Pollution Sources:

- Sewage (septic tanks, treatment plants, etc)
- Stormwater run-off (urban, lawns, commercial, roads, etc.)
- Agricultural pollution
- Phosphate mining
- Other industrial discharges
- Air deposition
- Groundwater

Clean Water Act Programs

an overview of the plan for protection

- NPDES - direct discharges to surface waters
- Wetlands - Corps of Engineers 404
- Stormwater - polluted run-off from urban areas
- TMDLs - Total Maximum Daily Loads - sort of like a pollution diet for our waters after they are too polluted for uses

Clean Water Act Programs

Why aren't they working

- Lack of political will to enforce the programs
- Polluter power - money talks, especially in Florida
- Lack of resources to correct the problems
- Need for public education about importance of CWA regulations

Placing value on an estuary



- Two Gulf passes and 7 tributaries flow into the Lemon Bay aquatic preserve, creating a diverse network of mangroves, marsh grass, and vast expanses of sea grass meadows which cover most of the underwater habitats. Over 150 species of birds, 100 species of invertebrates, and 200 species of fish reside in the bay.

Lemon Bay Aquatic Preserve

what's at stake?

Ecological Importance

Commercial, Recreational and Ecologically Important Species:
Recreational species include snook, sea trout, redfish, snapper and sheephead.

Commercial species include mullet, jack crevalle, and clam.
At least 230 species of fish depend directly upon the mangrove ecosystem of Lemon Bay for food, shelter, breeding and/or nursery ground. In the southwest Florida region, at least 20 species of reptiles and amphibians, 90 species of birds and 20 species of mammals utilize the mangroves as habitat for feeding, roosting, breeding and/or cover.

LEMON BAY AQUATIC PRESERVE

WHAT'S AT STAKE?

Nursery Area:

Estuarine tributaries, as well as mangrove and marsh habitats within the Lemon Bay Aquatic Preserve provide for early life stages of many marine species including the snook, a species of special concern. Mangrove habitat is also an important nursery area for the threatened brown pelican which nests exclusively in natural mangrove canopies.

LEMON BAY AQUATIC PRESERVE

WHAT'S AT STAKE?

Forage Area:

Lemon Bay Aquatic Preserve is a major forage area for the endangered manatee as well as the threatened and endangered sea turtles, all which feed on near shore sea grasses. In addition, the preserve is utilized as a forage area by many migratory birds and offshore fish species.


TMDLs & the Impaired Waters Rule


what is all the fuss about?

■ Congress passed the Clean Water Act ("CWA") "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."




What's all the fuss about?

 the CWA requires states to establish "water quality standards" for waterbodies within their boundaries.

 a state must first designate the use (or uses) to be made of a waterbody, such as water supply, fishing, or swimming.



What's all the fuss about?

 Then, the state must determine the water quality criteria necessary to safely permit the designated use. Those criteria become the "water quality standard" for the waterbody.



What's all the fuss about?

■ each state must compile a list of waterbodies that are not safe enough to support their designated uses, i.e., that do not meet their water quality standards. This list is known as a state's "impaired waters list" or "303(d) list" (so called because section 303(d) of the CWA).

What's all the fuss about?

- The placement of a waterbody on a state's impaired waters list is significant because the CWA requires that states target WQLSs for pollution control. States undertake the task of decreasing pollution in their WQLSs by establishing a "total maximum daily load" ("TMDL") for pollutants in a designated WQLS.

What's all the fuss about?

- A TMDL is a specification of the maximum amount of a particular pollutant that can pass through a waterbody each day without water quality standards being violated. States must establish a TMDL for every pollutant that prevents or is expected to prevent a waterbody from attaining applicable water quality standards.

What's all the fuss about?

■ When a waterbody is included on a state's impaired waters list, both the state and the federal government "are directed to adjust the amounts of pollution that are permitted by individual, identifiable sources, and to implement more generalized programs to reduce the amount of pollution.

LEMON BAY - IS IT OR IS IT NOT TOO POLLUTED?? DEPENDS ON WHO YOU ASK!

Charlotte Harbor No. Prong Alligator Cr. (2071)

Dissolved Oxygen, Coliforms, Turbidity

De-listed

Sarasota Bay Coral Creek Branch (2078B)

Dissolved Oxygen, Nutrients, Lead, Cadmium, Copper, Zinc

De-listed for
Dissolved Oxygen,
Lead, Cadmium,
Copper, Zinc;

Listed for Nutrients
(CHLA)

Sarasota Bay Lemon Bay (1983A)

Dissolved Oxygen, Nutrients

De-listed for DO;

Listed for Nutrients
(CHLA), Bacteria
(in shellfish)

Lemon Bay (1983B)

Newly listed for
Bacteria (in
shellfish)

Sarasota Bay Gottfried Creek (2049) Dissolved Oxygen, Nutrients	De-listed
Sarasota Bay Forked Creek (2039) Nutrients	De-listed
Sarasota Bay Direct Runoff to Bay (Alligator Creek) (2042) Nutrients	De-listed
Sarasota Bay Alligator Creek (2030) Nutrients	De-listed for Nutrients; Listed For DO, Fecal Coliforms
N. Fork Alligator Creek (2063)	Newly listed for DO
Rock Creek (2052)	Newly listed for DO
Oyster Creek (2067)	Newly listed for DO
Buck Creek (2068)	Newly listed for DO

WHEN WILL POLLUTION LIMITS BE SET FOR LEMON BAY AND TRIBUTARIES?

■ According to DEP's website, TMDLs for Lemon Bay and most of its tributaries will be developed in 2008



IF THE STATE IS SETTING TMDL'S, THEN WHY DO WE NEED TO GET INVOLVED?

- DEP's TMDLs will not clean up your waters
- Important to follow their process
- Need your own modeler
- Should be ready to challenge their numbers
- Expect DEP to try for a SSAC - don't let them get away with it!!!



If we don't get involved, what will happen to our waters?

- The pollution will continue to worsen!
- A new strain of blue-green algae on Sanibel has scientists worried because they say it's potentially harmful to people. The algae is technically called *Trichodesmium*.



What else can happen?

- **Red Tide** - A "red tide" occurs when either natural or human factors cause a rapid increase in the production of one-celled organisms (dinoflagellates) which, ordinarily grow in water rich in nitrogen and phosphorus. Sewage effluent and runoff from farms and lawns contain nitrogen and phosphorus. The dinoflagellates consume the nitrogen and phosphorus when added to the water and then reproduce or "bloom" profusely. They spread across the water absorbing oxygen and stealing sunlight from plants. When the organisms die and decay, they absorb more oxygen which literally suffocates marine life.

Wars on the Peace Rive

■ The phosphate industry is proposing to add 100 square miles of new mines entirely within the Charlotte Harbor watershed, in the western portions of Hardee and DeSoto County. These mines have great potential to adversely impact the hydrology of the entire region, especially Horse Creek, the largest tributary of the Peace River. Freshwater from these streams are the lifeblood of Charlotte Harbor, the second largest and most productive estuary in Florida.

Wars on the Peace River.

will your leaders seize the opportunity to protect this watershed?

- **Major decision looms** - continue to fight for protection or settle for an unknown (but surely altered future for the watershed)
- **Pro** - County could stop spending millions on legal battles;
- **Pro/Con** - There would be water supplies for future growth; (remember growth = pollution)
- **Con** - County gives up best opportunities for legal victories which would come in federal courts;
- **Con** - the watershed will change and decline from top to bottom - forever!

What's in it for Mosaic?

- Mosaic offers land and water storage in exchange for 30 years of unfettered mining.
- Pro (for them) - protects them from county suits on the federal level which have a much greater chance of stopping the mining;
- Pro - decades of unfettered mining
- Pro - creating an unalterable future for the Peace River watershed that will be focused on mining and growth at the expense of tourism, fishing (recreational and commercial) and overall quality of life. Once these economic drivers are undermined, then mining will be the primary economic consideration.

Can the Clean Water Act Save the Peace River?

- Possible strategies
- Don't give up legal options in deal with Mosaic!
- Fight for strong TMDL's for the entire Peace river watershed
- If necessary, take legal battles over mining permits into federal court
- Now is the time to draw the line and just say no to more mines in the Peace River watershed!

Where to go for more information

- www.cleanwaternetnetwork-fl.org
- <http://www.epa.gov/region4/water/tmdl/>
- <http://www.cleanwaternetnetwork.org/>
- http://whoseflorida.com/misc_pages/phosphat
- <http://thephosphaterisk.com/index.cfm?fuseaction=home.content&MenuSection=6>

How do I stay involved?

■ Contact your commissioners with your views!

■ Lemon Bay Conservancy:

[http://www.lemonbayconservancy.org/;](http://www.lemonbayconservancy.org/)
info@lemonbayconservancy.org

941.475.9021

■ Clean Water Network of Florida:

[www.cleanwaternetnetwork-fl.org;](http://www.cleanwaternetnetwork-fl.org)
llyoung2@earthlink.net; 850/222-9188

■ Sierra Club: www.sierraclub.org