Southwest Florida Water Management District

Surface Water Improvement and Management (SWIM) Program

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Water Management District

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For more than 25 years, the Southwest Florida Water Management District's (District) Surface Water Improvement and Management (SWIM) Program has implemented projects for the improvement of priority water bodies throughout the District's 16-county region.

With a staff of environmental scientists and engineers, the SWIM Program currently manages about 100 projects within the District. These projects focus on restoring degraded habitats and reducing pollution entering SWIM priority water bodies.

Since 1987, the SWIM Program has completed nearly 250 habitat restoration and water quality improvement projects. This translates to the restoration of more than 6,000 acres of habitat and the water quality treatment of more than 50,000 acres of watershed. The SWIM Program and its partners have received more than 50 environmental excellence awards for these projects.

In Tampa Bay, the District's highest priority water body, the SWIM Program has completed about 90 coastal restoration projects, totaling more than 3,100 acres of restored habitat, including saltwater and freshwater wetlands and uplands. Additionally, more than 65 water quality improvement projects are helping Tampa Bay recover from poor water quality and contributing to the return of seagrasses and sea life.

Florida's surface waters include bays, estuaries, rivers, lakes, streams, creeks, ponds, sloughs and wetlands — all of which play an important role in sustaining Florida's ecosystems, economy and quality of life. Over time, many of our state's water bodies have suffered from pollution and habitat loss caused by wastewater and industrial discharges, agricultural runoff and increases in population and development.

For that reason, the state Legislature recognized the importance of restoring and protecting damaged and at-risk surface water bodies by establishing the SWIM Act.

Surface Water Improvement and Management Act

In 1987, the Florida Legislature created the SWIM Act to protect, restore and maintain Florida's highly threatened surface water bodies. Under this act, the state's five water management districts identify a list of priority water bodies within their authority and implement plans to improve them.

Over the past 25 years, the SWIM Program has funded numerous restoration projects and diagnostic studies to improve habitat for bay life.

Currently, the District's 10 priority water bodies include Tampa Bay, Rainbow River, Banana Lake, Crystal River/Kings Bay, Lake Panasoffkee, Charlotte Harbor, Lake Tarpon, Lake Thonotosassa, Winter Haven Chain of Lakes and Sarasota Bay (see map on back). The list of priority water bodies is updated periodically to reflect changes in the health of individual water bodies.

District SWIM Program

The SWIM Program is administered through the District's Natural Systems & Restoration Bureau, which is responsible for many water quality and habitat restoration initiatives. With the help of state agencies, local governments and other organizations, the SWIM Program focuses on water quality and habitat restoration projects to carry out these initiatives.

On the cover: The series of photos shows the before, during and after phases of the Cockroach Bay restoration project. District staff designed and constructed this braided tidal creek to create habitat for Tampa Bay's fish and wading bird species.

Water Quality Protection and Restoration

In order to sustain good water quality throughout west-central Florida, the SWIM Program evaluates priority water bodies, identifies potential problems and carries out projects to improve their water quality.

A main issue affecting water quality is pollution. Water bodies are polluted both directly and indirectly. Some direct pollution sources are easy to identify and manage, such as trash entering lakes, rivers and springs. When water bodies are polluted indirectly by sources such as chemicals in stormwater runoff, the sources are more difficult to identify.

Stormwater runoff is possibly the biggest threat to the health of our water bodies. It occurs when rainwater flows across land and picks up pollutants, which eventually wash into water bodies. These pollutants may include litter, motor oil, gasoline, fertilizers, pesticides, pet wastes, sediments and anything else that can float, dissolve or be swept away by moving water.

SWIM projects focus on reducing the pollution in stormwater runoff. These projects may include creating ponds or swales, filtration devices and chemical treatment systems to remove sediments, trash and other pollutants entering a water body.

An increase in seagrass acreage is one indicator that water quality is improving in coastal systems, since seagrass requires relatively clean water to flourish. Not only do seagrass beds serve as nurseries for sea life, they also provide protection from predators and a food source for animals such as manatees and sea turtles. The improvement and protection of valuable seagrass habitats are an important aspect of the SWIM Program.

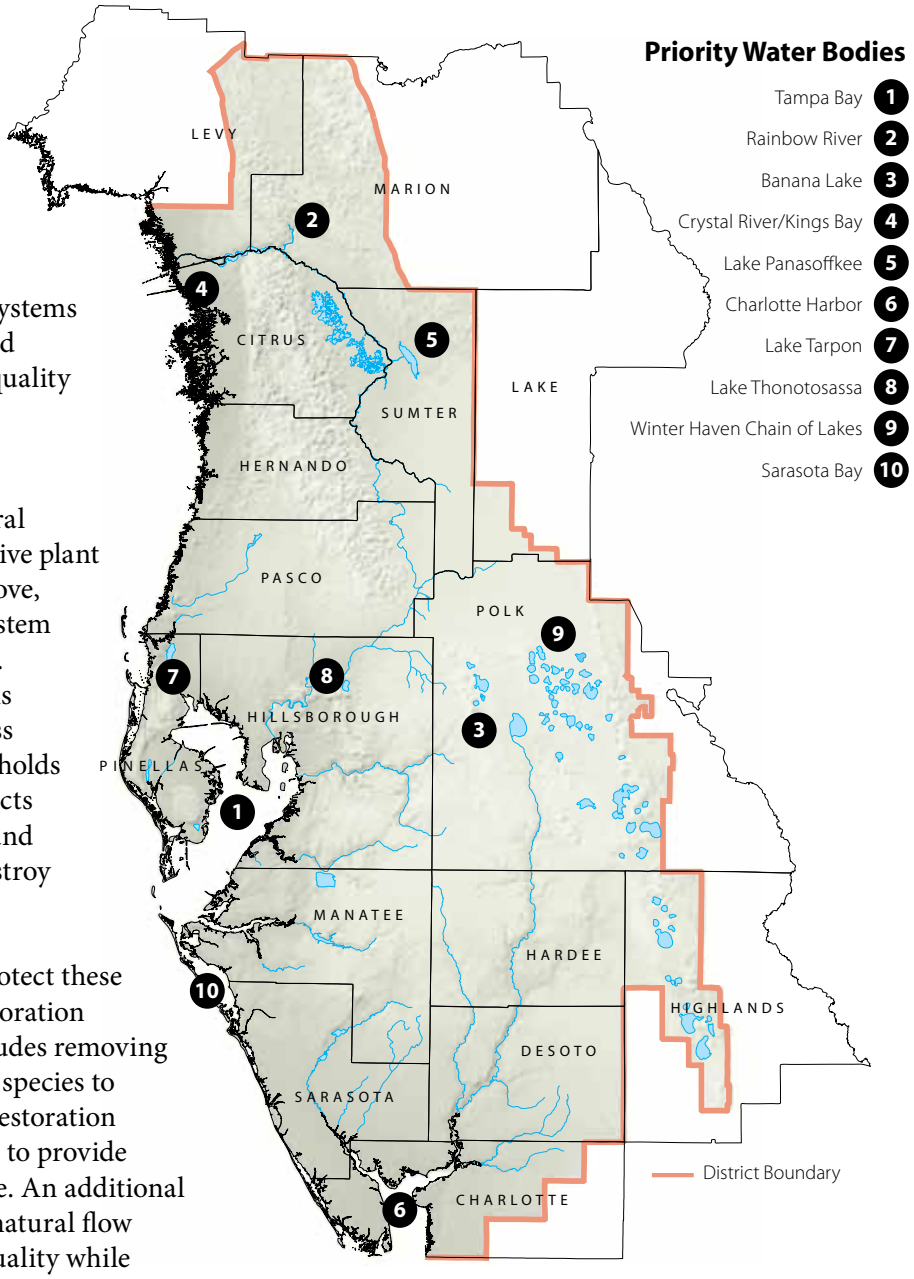
The Lancaster Tract habitat restoration project created low-salinity habitat that acts as a nursery ground for juvenile fish. The project also improves water quality entering Allens Creek from the surrounding urban area.

Above: At Schultz Preserve, volunteers plant marsh grass to provide habitat for juvenile fish and prevent erosion.

Left: The District conducts water quality monitoring and vegetative studies in the Rainbow River to maintain the quality of the water body.

Habitat Restoration

Over the years, Florida's expansive growth and increase in urbanization have altered or eliminated many natural plant and animal habitats. These habitats play a significant role in the state's economy, influencing the commercial fishing, recreation and tourism industries. The SWIM Program focuses on improving and protecting these natural ecosystems for fish and wildlife, including threatened and endangered species, while enhancing water quality and providing flood protection.



Habitat restoration projects rebuild the natural structures of ecosystems essential to productive plant and animal communities. Individual mangrove, marsh and seagrass habitats within an ecosystem provide shelter and food for fish and wildlife. Additionally, water quality in these habitats is maintained as aquatic vegetation filters excess nutrients and sediments from the water and holds sediments in place, preventing erosion. Impacts such as pollution, development, agriculture and recreational activities can upset and even destroy plant and animal habitats.

The SWIM Program works to restore and protect these types of natural systems through habitat restoration projects. One type of restoration project includes removing exotic plants and replacing them with native species to provide food and shelter for wildlife. Other restoration projects create lagoons and freshwater ponds to provide nursery areas for juvenile fish and aquatic life. An additional kind of restoration project reestablishes the natural flow of water within a system, improving water quality while replenishing the aquifer.

Funding

SWIM projects are funded primarily by District ad valorem taxes, in addition to local, state and federal funds. One of the keys to the success of the SWIM Program is the cooperation of partners that support SWIM projects through land acquisition, cooperative funding or in-kind services.

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For more information about the District's SWIM Program, please call 1-800-836-0797, ext. 2201.

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