Shoreline Protection

Phosphorous has been identified as the key pollutant of concern for Lake Apopka. If controlled from all sources, phosphorous can limit the effects of other lake nutrients. It is also a key component of stormwater runoff from urbanized land uses. Therefore, making every effort to limit or reduce phosphorous loading becomes an important concern for all shoreline uses, as well as uses throughout the basin.

The St. Johns River Water Management District has documented that, once introduced, pollutants tend to stay in the lake, resulting in accumulation of silts and sediments. Knowing this, the importance of keeping runoff from shoreline and upper basin activities as clean as possible becomes clear. How this is done varies by situation, but all portions of the basin have opportunities to address this issue. And, as a healthy lake has economic as well as ecological benefits throughout the basin, all residents have an interest in helping to protect it.

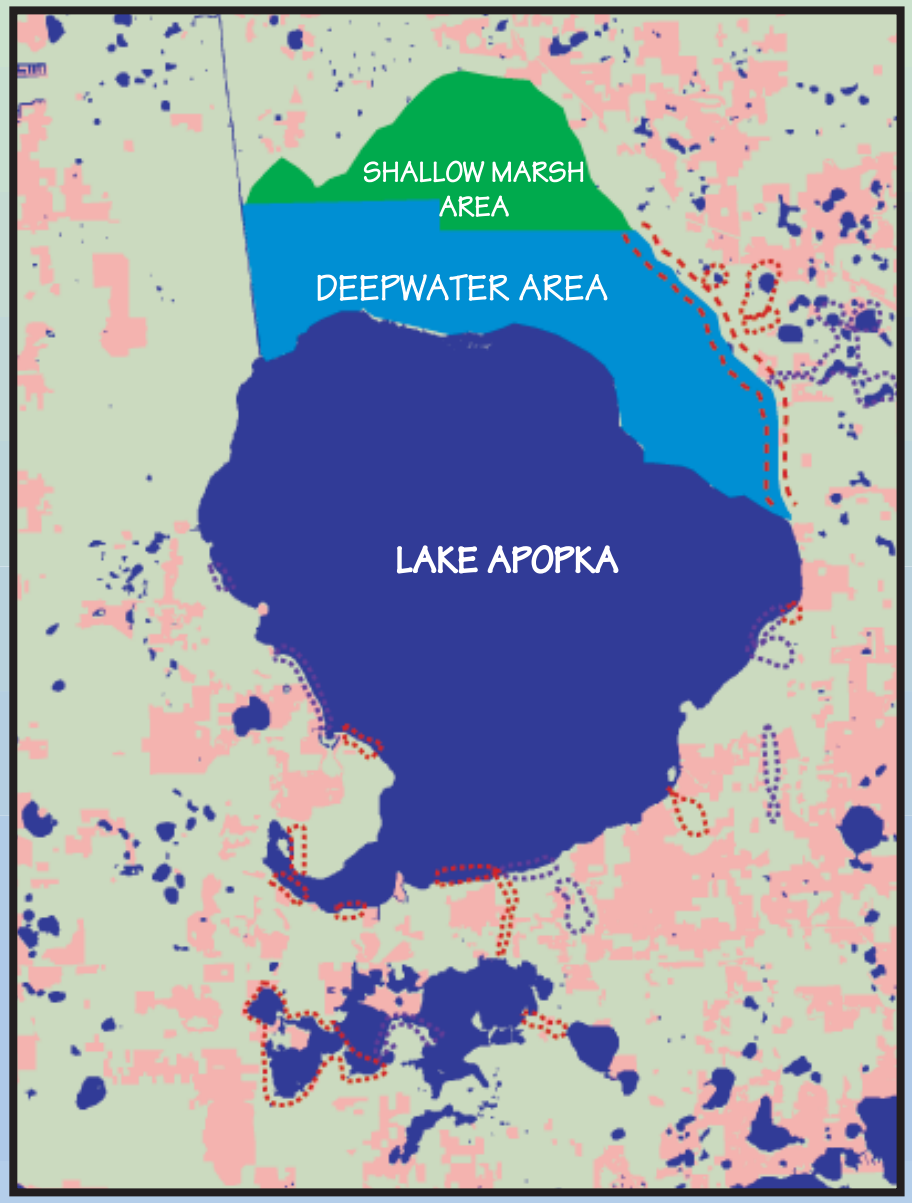
Using the basin's natural systems for controlling the quality of runoff into the lake is a highly efficient and cost-effective measure. Shorelines are an important part of this approach as they offer the last line of defense against water pollution originating on land. Their level of protection depends upon how dense and uninterrupted an expanse of natural vegetation can be maintained. This includes vegetation back from the shoreline as well as along the shore. As such, it also includes wetland and upland plants, both of which are capable of assimilating nutrients that otherwise would end up in the lake.

While much of the shoreline along Lake Apopka, its tributaries and connected lakes already is committed to some level of urban development, significant stretches remain undeveloped, particularly along the west and northeast shore of the lake. Some of these areas contain substantial wetlands, and by virtue of the protection afforded the, through existing statutory and permitting requirements, provide a secure protective filter for upland runoff. Other shoreline areas have only small fringe wetlands or consist entirely of uplands that are likely to be developed.

Needs and Opportunities relating to water quality protection are based upon FDEP's recommendation of having 100 feet (in depth) of natural vegetation -wetlands or uplands or both - separating a water body from upland development. (Upland development includes residential lawns and other landscaped areas maintained as part of a home or larger development.) Described below are those stretches of undeveloped shoreline most threatened by development, which, if protected, offer the greatest opportunity - due to their length - for contributing toward protection of Lake Apopka's water quality. Shorelines were prioritized as either high or medium according to the following criteria:

1. High priority areas consist of continuous undeveloped shoreline of a sizable length having little or no protection from development (i.e., no wetlands).
2. Medium priority areas consist of continuous undeveloped shoreline of a sizable length having some protected land (i.e., wetlands but not 100 feet in depth).

The purpose of prioritizing is to recommend where shoreline protection efforts can best be focused to realize maximum water quality benefits. It is not meant to suggest that other shoreline sections need not or should not be buffered from development. Lake Apopka, as well as other water bodies in the basin, can benefit from maintaining as much of its shoreline in natural vegetation as possible, particularly in combination with removal of exotic plants and their replacement with native species.



NEEDS & OPPORTUNITIES
SHORELINE PROTECTION

N

- Undeveloped Land
- Water
- Urban/Suburban
- Deepwater Area
- Shallow Marsh Area
- High Priority Needs/Opprtunity
- Medium Priority Needs/Opportunity

lulu creek

Johns Lake Outfall

HERMIT LAKE & TRIBUTARY

NORTHEAST SHORE

High Priority

1. Hermit Lake and Tributary
2. Holts Lake and Tributary
3. Unnamed Spring and Tributary
4. New Lake Apopka Shoreline adjacent to SJRWMD's Proposed Deepwater Area

Medium Priority

1. Marshall Lake and Tributary
2. Lake Fuller, Connected Smaller Lakes and Tributary

SOUTHEAST SHORE

High Priority

1. Canal (adjacent to Paradise Development)
2. Lulu Creek
3. Connection between Johns Lake and Black Lake
4. Johns Lake Outfall
5. Lake Apopka Shoreline between Oakland and Winter Garden

Medium Priority

1. Tributary running Southeast from Lake Apopka Shoreline, crossing Ocoee-Apopka Road, to North of Fuller Cross Road.
2. Lake Apopka Shoreline
3. Tributary South of Log Landing Road down to Palm Drive (flows to Crown Point Swamp).
4. Tributary West of Lakeview Middle School, from West Plant Street to Brandy Lake.

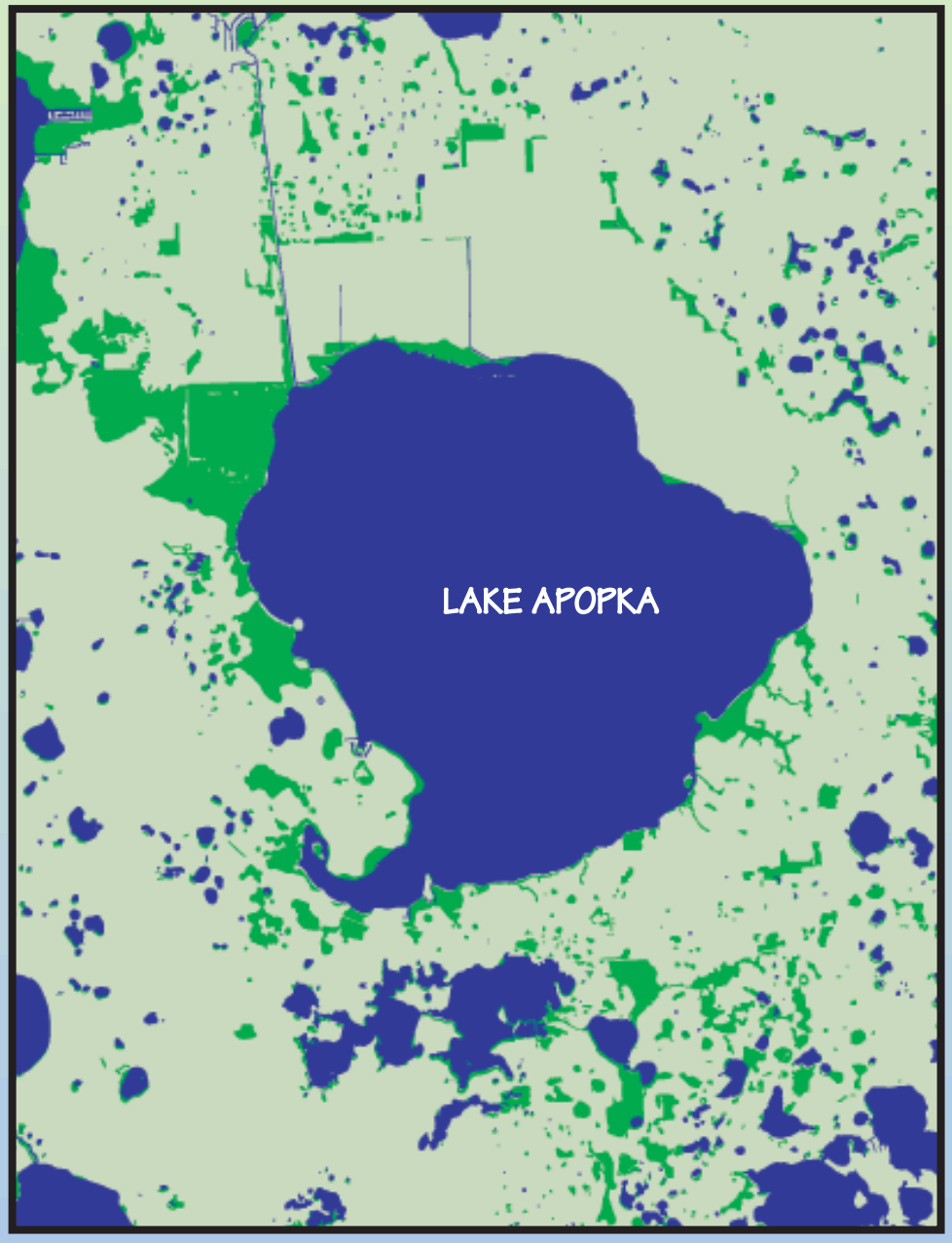
SOUTHWEST SHORE

High Priority

1. Shoreline of the Western Portion of Johns Lake
2. Lake Apopka Shoreline North of Turnpike
3. Lake Apopka Shoreline South of Gourd Neck Spring
4. Lake Apopka Shoreline on Southwest side of Pine Island
5. Lake Apopka Shoreline on North side of Pine Island

Medium Priority

1. Southern Portion of Johns Lake Shoreline across from Deer Island
2. Lake Apopka Shoreline North of Montverde
3. Lake Apopka Shoreline South of SJRWMD Lands



NEEDS & OPPORTUNITIES
SHORELINE CONDITIONS

Wetlands

This map represents shoreline with protected wetlands. A significant portion of the Lake's shoreline is upland and is either developed or developable. Without proper management and adequate buffers with native vegetation, the developable lands could add significant amounts of stormwater (phosphorous) to the Lake.

The quality of recreational experience will be greatly enhanced by minimizing shoreline construction that can detract from the presentation of the lake as a mostly undeveloped resource. The shoreline of the Butler Chain of Lakes (pictured below & right), before and after development, offers a dramatic picture of the type of changes that could occur, but should be avoided.

Circa 1975

Circa 1999

Shoreline Protection