University of Florida Conservation Area Land Management Plan

Digital Design Wetland / Sweet Sink

Introduction

Digital Design Wetland is a 7.8-acre Conservation Area south and west of the Digital Design Facility and includes a portion of the floodplain of the unnamed creek that flows east to Lake Alice, between Center and North-South Drives. As the name implies, this Conservation Area is primarily made up wetlands and their associated buffers. Historical photography and documents indicate that this area was previously more of a depression marsh and sink, with the sink being named Sweet Sink. According to a report completed in 1948, Lake Alice Drainage Project, this sink was plugged to prevent wastewater from directly entering the aquifer (and then the City's drinking wells).

The 2000-2010 Campus Master Plan identified this area as Wetland Preservation Area 11. Future alternative uses of this Conservation Area are limited by the fact that the majority of the area is wetland, with only small areas of upland buffer surrounding it. The working group that inventoried this area in the spring of 2004 suggested that the boundaries to the conservation area be expanded to include a small forested area, largely following the 100-year floodplain.

Natural Areas Inventory

Water Resources

The unnamed creek that makes up approximately half of this Conservation Area enters campus from the east and flows westerly with upstream tributaries on either side of Diamond Village. Most water flow within the creek comes from stormwater runoff, irrigation and seepage from upstream areas on the eastern quadrant of campus that include the health center facilities to the south and older parts of campus to the north. Additionally, flow from areas east of US 441 (S.W.13th Street) around Norman Hall and Sorority Row also contribute to the creek.

This creek becomes fairly level as it goes under Newell Drive and as a result shows the results of upstream erosion in the form of sedimentation buildup. In fact, the creek in this area acts effectively as a sediment trap in that water velocity slows down and allows for particulate matter to settle out. However, this sedimentation buildup does create the need for regular dredging in order to prevent the floodplain from rising and culverts filling in.

According to the Lake Alice Drainage Project report, Sweet Sink was the recharge area for Lake Alice in times of high water. As stated previously, the sink was blocked off to prevent wastewater (now routed to the reclaimed water irrigation system), from the nearby treatment plant, from entering the aquifer. This blockage appears to have been accomplished by both a berm that separates it from the creek and by some blockage of the sink itself. The sink now functions as a wetland marsh and does not appear to be a major recharge point any longer.


Unnamed Creek

Natural Communities

The natural communities of Digital Design Wetland are a mix of stream, pond and ephemeral wetlands, with a great deal of emergent aquatic vegetation present in the water column of the open water segments. Thus, the two most common natural communities present on site are Marsh Lake (sinkhole pond) / Freshwater Marsh and riparian corridor, which is primarily made up marsh vegetation and small areas of floodplain forest. Wildlife and floristic inventories are not planned for this site.

Plant Species

Plants typical of these systems include: arrowheads, pickerelweed, bladderpod, common reed, coreopsis, glasswort, water primrose, pignut hickory, winged elm, sweet gum, loblolly pine, basket oak, basswood, laurel oak, cabbage palm, slash pine, red maple, swamp chestnut oak, hop hornbeam, water oak, live oak, red maple, sweetgum, cypress, loblolly bay, swamp tupelo, spruce pine, American beech, dahoon holly, wax myrtle, swamp dogwood, and Florida elm.

Invasive Non-Native Plant Species

The following list of non-native invasive plants has been documented within the conservation area: lantana, glossy privet, Japanese climbing fern, wild taro, cogon grass, mimosa, cat's claw vine, elephant ear.

Animal Species

Animals potentially occurring on site include cricket frog, pig frog, leopard frog, American alligator, eastern mud snake, banded water snake, striped swamp snake, northern harrier, red-tailed hawk, turkey, yellow-billed cuckoo, screech-owl, great-horned owl, ruby-throated hummingbird, acadian flycatcher, pileated woodpecker, hermit thrush, cedar waxwing, yellow-throated warbler, raccoon, river otter, gray squirrels armadillos, slimy salamander, Cope’s gray treefrog, bronze frog, box turtle, eastern glass lizard, green anole, broadhead skink, ground skink, red-bellied snake, gray rat snake, rough green snake, coral snake, woodcock, barred owl, pileated woodpecker, shrews, eastern mole, wood rat, cotton mouse, gray fox, mink, bobcat and white-tailed deer.


Sweet Sink - marsh

Soils Inventory

The following soil information for on-site soils was gathered from the Soil Survey of Alachua County (1985).

Blichton Urban Land Complex (0-5% slope)

This complex consists of poorly drained, nearly level to gently sloping Blichton soils and Urban land. It is irregularly shaped with relatively small areas. About 50 to 85 percent of each delineation is open areas of Blichton soils. These open areas are gardens, vacant lots, lawns and playgrounds. About 15 to 50 percent of each delineation is Urban land. Urban land consists of areas covered with houses, streets, parking lots, sidewalks, industrial buildings and other structures.

Urban Land Millhopper Complex

This complex consists of Urban land intermixed with nearly level areas of Millhopper soils. The areas are irregular in shape and range from 15 to 200 acres. About 50 to 85 percent of each delineation is Urban land. This Urban land consists of areas covered with buildings, streets, parking lots, sidewalks, and other structures. About 15 to 50 percent of each delineation is open areas of Millhopper soils. These open areas are vacant lots, lawns, parks, or playgrounds.

Cultural and Passive Recreational Resources

Digital Design Wetland is used primarily as a pedestrian and bike throughway for people moving between Center and North-South Drives. Due to the presence of turtles, alligators, and wading birds in the streams and wetlands, this area is a pleasant place to take a break from the hustle of campus. Currently there are no amenities present within this Conservation Area. There are no known archeological sites present within this Conservation Area.

Future Improvements

Digital Design Wetland is a riparian corridor and buffer adjacent to a creek and former sink (now a pond) with its upland areas being largely cleared and mowed. This area should be considered a Nature

Park with the associated public use improvements that go along with this designation. Since this area is well used as a pedestrian thoroughfare, some attention should be paid to providing a few sitting areas along the paved paths, along with conservation signage and planting of wildlife friendly plants. Another improvement that has been recommended for this site is to put in an elevated boardwalk to replace an unmarked trail that runs from Center Drive, adjacent to the unnamed creek, to the parking lot of the Particle Science / Black Hall. The current trail runs through a wetland and is therefore inundated periodically. Also, some currently mowed areas between the Particle Science parking lot and wooded area should be allowed to grow up, with a less frequent mowing schedule or elimination of mowing altogether (some fencing may be required to bring this to fruition). Finally, the management of invasive plants, along with a replanting plan for the stream and wetland area is recommended.

Maps on the following pages:

1. Aerial Photo
2. Water Resources
3. Natural Communities
4. Soils