



University of Florida Conservation Area Land Management Plan
Solar Park Pond

Introduction

Solar Park Pond is an approximately 10.6-acre Conservation Area located on both sides of SW 23rd Terrace, adjacent to Energy Research and Education Park (EREP) (east side of 23rd) and Organic Gardens (west side of 23rd), south of Archer Road on the southwest quadrant of campus. This Conservation Area is centered around two sinkhole ponds / depressions that appear, based on historical photography, to have been split by the building of SW 23rd Terrace.

The 2000-2010 Campus Master Plan identified this area as Wetland Preservation Areas 5 (west) and 6 (east). Future alternative uses of this conservation area are limited by the sinkhole ponds, small area of upland buffer and wetlands. The working group that inventoried this area in the Spring of 2004, suggested that the boundaries to the Conservation Area be expanded to include both some forest and grass areas on both the eastern and western sides, largely following the 100-year floodplain. These recommendations were incorporated into the new boundary by the Conservation Study Committee in the Spring of 2005.

Natural Areas Inventory

Water Resources

According to watershed analysis work completed by Causseaux and Ellington, and CH2MHILL, Solar Park Pond Conservation Area is in depression basin 14 and is the ultimate destination for stormwater runoff in the basin. However, during very large rainfall events it is likely, based on topography and a drainage ditch, that water from these depressions (formerly one depression) drains into Bivens Arm Lake. This area receives stormwater from the Energy Research and Education Park and from IFAS research areas on the eastern side of SW 23 Terrace. Some of this stormwater is routed from the Swine Unit along an intermittent drainage ditch through the Organic Gardens. Since this ditch is both a wetland and in the 100-year floodplain, it has been incorporated into the Conservation Area.

The City of Gainesville placed a fence on the western side of SW 23rd Terrace in the sinkhole pond as a trash trap (Stu Pearson, City Engineer). The working group suggested that the fence should be relocated out of the pond and extended along SW 23rd Terrace to prevent trash from entering the pond.



Trash trap on western pond



Western pond

Natural Communities

The natural communities of Solar Park Pond begin with the ponds themselves, which often have emergent aquatic vegetation in the water column. While the western pond quickly grades up into a mesic hardwood hammock, the eastern pond is surrounded by marsh vegetation (periodically mowed). Thus the three most common natural communities present on site are Marsh Lake (sinkhole pond), Freshwater Marsh and Mesic / Mixed Hardwood Hammock.

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 Surge Wetland: Air potato vine, American Evergreen, and Scraththroat.

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.



Hardwood Hammock (west)



Freshwater Marsh (east)

Soils Inventory

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

Blichton Sand (2-5% slope)

This gently sloping, poorly drained soil is on gently rolling uplands. Slopes are slightly convex. The areas are mostly irregular in shape and elongated and range from 10 to 40 acres. Typically the surface layer is dark grayish brown sand about 6 inches thick. It is about 3 percent nodules of ironstone and fragments and nodules of phosphatic limestone. The subsurface layer extends to a depth of 28 inches.

Lochloosa Soil (2-5% slope)

This gently sloping, somewhat poorly drained soil is in small and large areas on the rolling uplands. Typically, the surface layer is dark gray fine sand about 7 inches thick. The subsurface layer is yellowish brown loamy sand or sand to a depth of 31 inches. This soil has a water table that is about 30 to 40 inches below the surface for 1 to 4 months during most years. Surface runoff is slow.

Millhopper Sand (0-5% slope)

This nearly level to gently sloping, moderately well drained soil is in small and large irregularly shaped areas on uplands and slightly rolling knolls in the broad flatwoods. Typically, the surface layer is dark grayish brown sand about 9 inches thick. The subsurface layer is sand or fine sand about 49 inches thick. This Millhopper sand has a water table that is at a depth of 40 to 60 inches for 1 to 4 months and at a depth of 60 to 72 inches for 2 to 4 months during most years.

Cultural and Passive Recreational Resources

There are no recreational amenities provided at this conservation area and due to its limited size, remote location and high percentage of wetlands, future uses should be limited.

There are known archeological sites present within this Conservation Area. Additionally, the probability of additional Paleo-Indian sites within this area is high according to archeological mapping completed by the University. Future improvements to the site will take into account the location of known areas and follow guidelines by the Department of Historical Resources before sighting any new structures.

Future Improvements

Due to its relatively remote location, Solar Park Pond serves primarily as a small Nature Preserve area with limited public access. Improvements to the site that are recommended include, the elimination of mowing within the Conservation boundary, placement of fencing along SW 23rd Terrace, and cleaning up trash and some remnants of previous uses. Based on those recommendations a fence has since been placed along 23rd Terrace. Based on the new boundaries to this Conservation Area, areas that had been mowed will now be allowed to restore naturally, with a few native trees planted and boundary marker placed to help facilitate the process. Additionally, the University will coordinate with the City of Gainesville on how to better deal with the City's trash trap the border 23rd Terrace.

Maps on the following pages:

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

4. Soils