Self-Guided Auto Drive
Lake George Conservation Area

About this property
Lake George Conservation Area consists of 11,742 acres along the northeast shore of Lake George, the second-largest lake in Florida. The St. Johns River Water Management District purchased this property in 1990 to improve water quality, maintain natural hydrologic regimes, increase flood protection, restore, maintain and protect natural community diversity and provide public recreation. The interpretive auto drive provides a unique opportunity to view a diverse conservation area and to learn about the tools used in its management.

Much of the property was once part of an industrial/commercial forestry site before the District acquired it. The goal for a commercial forestry operation is to maximize productivity. In a commercial setting, trees are managed similarly to a long-term crop. Prior to planting, various site preparation methods are employed. Timber companies typically plant fast-growing species in rows, which can be harvested — often clear-cut — and replanted on a short cycle, with the cycle repeated.

The property's history as a commercial forestry site remains evident in many places. However, now that the land has been brought into public ownership, the overriding goal of the District has been to improve species diversity and the overall natural community's health. For this reason, the District uses a different forest management approach. Densely planted timber stands are thinned to a more natural density, which improves forest health. Thinning also reduces competition among trees over time, resulting in larger trees with fuller canopies; allows more sunlight to reach the forest floor, stimulating the growth and reproduction of native grasses and forbs, which provides important forage for wildlife.

Prescribed fire is an efficient and effective tool used by District staff in the restoration and management of its public lands, including Lake George. Periodic prescribed fires (also known as controlled burns) are the only means land managers have to meet the needs of many fire-dependent plants and animals while also reducing the threat of property damage from wildfires. Prescribed fire mimic nature but burn with less heat and damage than wildfire. Prescribed fire is the use of carefully planned fire purposefully set under stringent conditions to control the fire's effects. Substitutes for fire have been tested in recent years, such as chopping and mowing down vegetation, yet none provides the many benefits of fire.

Please exercise caution while participating in the auto drive. Remember that:

- Many roads within the conservation area (especially Truck Trail 2) are well-used local roads with moderate amounts of traffic. Additionally, timber management is an important tool utilized within the conservation area, and many of the roads used in the auto drive are primary logging roads.
- Roads are maintained regularly but, at times, may require four-wheel drive.
- Lands within Lake George Conservation Area are part of a wildlife management area and are open to seasonal hunting.
- The conservation area is part of a diverse system of interconnected upland and wetland areas. Flooding can occur rapidly with small amounts of rain.

1. Truck Trail 2

As you drive along Truck Trail 2, you will notice that some rows of timber have been harvested. In a functioning natural system, trees tend to be widely spaced, reducing competition between trees while allowing sunlight to penetrate to vegetation at ground level that, in turn, promotes plant and animal diversity. Small areas called loading ramps are cleared to provide loggers with an area to sort, trim and load logs after harvesting. You may sometimes see logging debris immediately after harvesting, but remaining tree trimmings will decay rapidly, and the ramps provide valuable openings for wildlife.

Mesic (moist) flatwoods are the dominant natural community visible from Truck Trail 2. Slash pine was the

preferred choice of timber companies at the time the property was planted. It remains the dominant canopy tree at Lake George today. The understory is dominated by saw palmetto, gallberry and a variety of grasses.

2. **Aces Road**

Vegetation at this point is a natural scrub community. Scrub areas have a white sandy soil that consists of low nutrients, causing plants to grow slowly. Sand pine, often called sand pine scrub, is an appropriate tree species for this area. Although sand pine-dominated scrub is a fire-adapted community, it is a unique pine community in relation to fire. Unlike other pines that promote the survival of the individual tree with insulating bark, sand pine has adapted to protect the species/forest by dropping serotinous cones that blossom later in the season. Sand pine burns relatively infrequently, with tremendous intensity in a stand-replacing crown fire. This intense fire kills most of the existing sand pines, top-kills other woody species on the site, and heats the pinecones so they open and release their seeds. Because fire clears the forest floor, the sand pine seeds fall on nearly bare sand. The seeds will then germinate and become established with little competition. This cycle of germination, growth and mortality often occurs over a 40- to 80-year cycle.

3. **Truck Trail 1**

Lake George Conservation Area seems to have pine trees as far as the eye can see. However, did you know that approximately 45 percent of this property includes wetlands or other wetter communities? Basin marsh, depression marsh, flatwoods lakes, dome swamps and wet flatwoods are interspersed through the property due to slight changes in elevation and soil type. More than 62 low-water crossings, culverts or bridges are found at Lake George to ensure the proper movement of water while still allowing for road use. The elevation at U.S. 17, about 2 miles to the east, is 60 feet above sea level, while the elevation closer to Lake George is 5 feet. Many of these wet areas come together and then flow west to empty into creeks that then drain to Lake George. To the north and south are dome swamps, which are typically circular areas of lower elevation that collect water, but also support trees such as cypress. To survive in water, cypress trees develop pneumatophores, also known as cypress knees or breathing roots, that grow up above the water to acquire oxygen for the tree. These dome swamps provide important breeding habitat for numerous amphibians, including southern toads, green tree frogs, squirrel tree frogs, cricket frogs and oak toads.

4. **Combie Road**

You are about to cross over Jumping Gully Branch, a small creek that drains to Lake George. Bay and cypress trees are visible from the road, as are large clumps of sand cordgrass and other wetland plants. This area of Combie Road experienced wildfires in 1998, when the land was so dry that thousands of acres burned across Florida. Here, approximately 1,500 acres, or 15 percent, of the property burned. In addition to wildfire, a dry season also stresses trees due to lack of water, and drought can bring a pine beetle invasion that causes further damage to trees.

5. **Denver Road**

This section of the property is an example of the mesic flatwoods. Mesic flatwoods have a hard clay underpan that keeps the area saturated during heavy rain, which typically occurs every fall in Florida. The hardpan can prevent groundwater from rising during the dry season. Mesic flatwoods are maintained by fire because prescribed burns are necessary for many species to flower or produce seed. Vegetation regrowth can be observed within days of a burn and can rapidly grow dense and tall. Vegetation must be able to survive these extreme fluctuations in water availability. Vegetation species that you may see are longleaf pine or planted slash pine in the overstory, with a diverse understory of saw palmetto, gallberry, wiregrass and many other herbaceous species. Keep an eye out for wildlife, including the eastern diamondback rattlesnake, Sherman's fox squirrel and Florida black bear.

6. **Truck Trail 2**

This segment of road is an illustration of how a slight change in elevation can affect natural communities. The northern portion of this segment is characterized by mesic flatwoods. However, as you drive south toward Jumping Gully Creek, the elevation decreases slightly and the natural community shifts to a bottomland forest.

You will see a canopy of large live oaks and an open understory, marking the entrance to the Jumping Gully Group Campsite. The group camp area is equipped with an inclement weather shelter, picnic benches, a fire ring and a pitcher pump well. A reservation and a permit are required to use the group campsite. Reservations may be made on the District's website at *www.sjrwmd.com/camping*.

Just after crossing the bridge, the landscape becomes even higher in elevation and noticeably drier. The white sand and upland species of the scrubby flatwoods on the east side of the road contrast sharply with the more hydric species of the bottomland forest and the branch itself in a lower elevation.

7. Jumping Gully Road

The area to the north and west of Jumping Gully Road was replanted in longleaf pine after wildfires of 1998 and prescribed fire has been reintroduced as a management tool. Tall grasses and a diverse mix of shrubs can be found growing among the young longleaf pine.

8. Middle Landing/Middle Road

Middle Road leads directly to Middle Landing, which overlooks Lake George. Lake George is the second largest lake in Florida, measuring nearly 6 miles wide and 11 miles long, with an average depth of 8 feet. Lake George is part of the St. Johns River, which flows into the lake at the south central end and exits to the north. Salt Springs, Silver Glen Springs and Juniper Springs each flow to the lake. Many wading birds and freshwater fish can be seen in the area.

In 1773, William Bartram described his boat on the lake: "My vessel at once diminished to a nut shell on the swelling seas, and at the distance of a few miles, must appear to the surprised observer as some aquatic animal, at intervals emerging from its surface.," In 1933, Marjorie Kinnan Rawlings and friend Dessie Prescott Smith wrote about their experience boating on the St. Johns River north through Lake George, saying they veered away from the safe haven of the western border of the lake and traveling through the center of the lake, only to find white caps and waves, to their detriment.

If you think you hear thunder in the are, it could be an incoming storm, but it could also be target practice on the lake. The U.S. military uses Lake George as a target practice bombing range.

9. Troy Road

You may notice pockets of oak trees scattered among the pines. These distinct clusters of trees are the initial stages of a natural community that is moving from a scrub or scrubby flatwoods to a natural community known as xeric hammock. This process of changing from one community stage to another is called "succession," and, in this case, it is caused by a lack of fire. Without fire, oaks grow tall and dense, altering the low shrub structure of the scrub. This succession often prevents many plant and animal species commonly associated with scrub from surviving in the area.

10. Barrs Road

This is the last stop of the tour. The intersection at the corner of Barrs and Troy roads demonstrates the destructive damage that can occur from the high heat of wildfires. By utilizing both prescribed fire and timber management (especially thinning) the amounts of combustible fuels available to burn have been reduced. We hope you have enjoyed your adventure in this part of "Old Florida" and will visit again.

St. Johns River Water Management District
P.O. Box 1429
Palatka, FL 32178-1429
(386) 329-4404
www.sjrwmd.com
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