

# **The Economic Contributions of Recreational Visitation at Okefenokee National Wildlife Refuge**

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Division of Economics  
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This paper establishes the economic contribution baseline for recreational visitation at Okefenokee National Wildlife Refuge (Refuge). The paper addresses the levels of Refuge recreational activities and the economic effects of Refuge recreational activities. The analysis is followed by a glossary of terms. For more information regarding the methodology, please refer to “Banking on Nature – The Economic Contributions to Local Communities of National Wildlife Refuge Visitation” at <https://www.fws.gov/economics/divisionpublications/divisionpublications.asp>.

From an economic perspective, Okefenokee National Wildlife Refuge provides a variety of environmental and natural resource goods and services used by people either directly or indirectly. The use of these goods and services may result in economic effects to both local and state economies. The various services the Refuge provides can be grouped into five broad categories: (1) maintenance and conservation of environmental resources, services and ecological processes; (2) protection of natural resources such as fish, wildlife, and plants; (3) protection of cultural and historical sites and objects; (4) provision of educational and research opportunities; and (5) outdoor and wildlife-related recreation. A comprehensive economic profile of the Refuge would address all applicable economic effects associated with the use of refuge-produced goods and services. However, some of the major contributions of the Refuge to the natural environment, such as watershed protection, maintenance and stabilization of ecological processes, and the enhancement of biodiversity are beyond the scope of this paper. Therefore, this paper focuses on economic effects associated with recreational visitation. As a result, benefits represent conservative estimates and do not represent the Refuge’s total social impacts.

## **Refuge Description**

The Okefenokee National Wildlife Refuge was established in 1937 to preserve the unique qualities of the Okefenokee Swamp. Located in Charlton, Ware, and Clinch counties in Georgia and Baker County in Florida, the Okefenokee is the largest refuge in the east, and includes over 407,000 acres. The Okefenokee National Wildlife Refuge has many designations including being a RAMSAR Wetland of International Importance, National Water Trail, National Recreation Trail, an Important Bird Area, and is a proposed World Heritage Site. There are also 383,000 acres of National Wilderness Area within the Okefenokee National Wildlife Refuge. The Okefenokee is considered the largest intact freshwater wetland in North America.

The Refuge is made up of a variety of habitats, and includes over 40,000 acres of pine uplands that are managed for longleaf pine and the endangered red-cockaded woodpeckers around the swamp perimeter and on interior islands. Other habitats include open prairies, forested wetlands, scrub shrub, and open water (lakes).

The Refuge has 3 primary entrances and 2 secondary entrances for visitor access. There are multiple on-site partners who aid in the daily visitor services that are conducted on the refuge. At the Main Entrance to the Refuge, located near Folkston GA, Okefenokee Adventures is the on-site concessionaire that provides boat tours, canoe/kayak rentals, a sales operation, and a food service. The Okefenokee Swamp Park, located near Waycross GA, operates under a concession agreement with the Refuge and a lease agreement from the state of Georgia. This entrance offers boat tours, a train ride, interpretive programs, and live animal exhibits. The Stephen C. Foster State Park, located near Fargo GA, operates under a long-

term lease agreement with the refuge and offers camping, boat tours, boat rentals, canoe/kayak rentals, and interpretive programs. The Stephen C. Foster State Park is a designated International Dark Sky Park and attracts visitation for night sky programs and stargazing.

The Refuge offers visitors nearly 120-miles of water trails in the Wilderness Trail System with day-use and overnight camping opportunities administered through a permit system. Additional visitor opportunities include: Richard S. Bolt Visitor Center, Swamp Island Drive (7.2 mile long auto tour route), Chesser Island Homestead, and the Chesser Island Boardwalk. Hunting and fishing opportunities are available in multiple locations throughout the refuge.

## Activity Levels

This report uses 2016 statistics rather than 2017 statistics owing to long duration drought and refuge closure due to the West Mims Fire. Therefore, the visitation in 2016 is more indicative of an average year's visitation. Table 1 shows the Refuge had about 724,000 recreational visits in 2016 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for about 719,000 visits with residents comprising 35 percent of Refuge visitation.

**Table 1. Okefenokee NWR: 2016 Recreation Visits**

Activity	Residents	Non-Residents	Total
<b>Non-Consumptive:</b>			
Pedestrian	35,554	82,958	118,512
Auto Tour	91,019	136,529	227,548
Boat Trail/Launch	4,367	13,102	17,469
Bicycle	782	261	1,043
Photography	3,627	10,881	14,508
Interpretation	37,534	87,578	125,112
Other Recreation	24,066	24,066	48,132
Visitor Center	49,922	116,485	166,407
<b>Hunting:</b>			
Big Game	155	-	155
Small Game	-	-	-
Migratory Birds	-	-	-
<b>Fishing:</b>	4,623	-	4,623
<b>Total Visitation</b>	<b>251,649</b>	<b>471,860</b>	<b>723,509</b>

Source: Refuge Annual Performance Plan 2016 and Refuge Staff

## Regional Economic Analysis

The economic area for the Refuge is the four-county area of Charlton, Clinch, and Ware Counties in Georgia and Baker County, Florida. It is assumed that visitor expenditures occur primarily within these counties. Visitor recreation expenditures for 2016 are shown in Table 2. Total expenditures were \$64.7 million with non-residents accounting for \$59.8 million or 93 percent of total expenditures. Expenditures on non-consumptive activities accounted nearly all expenditures.

Spending in the local area generates and supports economic activity within the four county area (Table 3). The contribution of recreational spending in local communities was associated with about 753 jobs, \$17.2 million in employment income, \$5.4 million in total tax revenue, and \$64.7 million in economic output.

**Table 2. Okefenokee NWR: Visitor Recreation Expenditures (2016 \$,000)**

<b>Activity</b>	<b>Residents</b>	<b>Non-Residents</b>	<b>Total</b>
Non-Consumptive	\$4,702.1	\$59,786.0	\$64,488.1
Hunting	\$4.6	\$0.0	\$4.6
Fishing	\$210.6	\$0.0	\$210.6
<b>Total Expenditures</b>	<b>\$4,917.2</b>	<b>\$59,786.0</b>	<b>\$64,703.2</b>

Note: Totals may not sum due to rounding.

**Table 3. Okefenokee NWR: Local Economic Contributions Associated with Recreation Visits (2016 \$,000)**

	<b>Residents</b>	<b>Non-Residents</b>	<b>Total</b>
Economic Output	\$4,917.2	\$59,786.0	\$64,703.2
Jobs	57	697	753
Job Income	\$1,307.0	\$15,853.9	\$17,160.9
State and Local Tax Revenue	\$383.1	\$5,065.7	\$5,448.8

## Glossary

**Economic Contribution:** The economic activity generated in a region by residents and non-resident recreation spending.

**Expenditures:** The spending by recreational visitors when visiting refuges. Expenditure categories include food, lodging, transportation, and other. Expenditure information is based on the 2011 National Survey of Fishing, Hunting and Wildlife Associated Recreation (NSFHWR).

**Economic Output:** The total spending by final consumers on all goods. The amount reported in this study is the change in spending by final consumers in the region attributable to refuge visitation. Economic output includes spending by people who earn income from refuge visitors' activities as well as spending by refuge visitors themselves.

**Impact:** The new economic activity generated in a region as a refuge attracts non-residents to the area. This figure represents economic activity that would be lost if the refuge were not there.

**IMPLAN:** An economic modeling software package that applies input-output analysis techniques to regional economies.

**Jobs:** Full and part time jobs.

**Job Income:** Income to households from labor including wages and salaries.

**Resident/Non-Resident:** People living more than 50 miles from the refuges are considered non-residents for this study.

**Tax Revenue:** Local, county and state taxes: sales tax, property tax, and income tax

**Visitors:** A visitor is someone who comes to the refuge and participates in one or more of the activities available at the refuge.

**Visits (visitation):** A visit is not the same as a visitor. One visitor could be responsible for several visits on a refuge. For example, if a family of four went fishing in the morning and hiked a short nature trail in the afternoon, they would have contributed eight activity visits to the refuge; yet, they are only four visitors.

## References

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