

The Economic Contributions of Recreational Visitation at Savannah National Wildlife Refuge

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This paper establishes the economic contribution baseline for recreational visitation at Savannah 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, Savannah 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

Savannah National Wildlife Refuge, established April 6, 1927, consists of 31,551 acres of freshwater marshes, tidal rivers and creeks, and bottomland hardwoods. About half the Refuge is bottomland, composed primarily of cypress, gum, and maple species. Access to these areas is by boat only. The 3,000 acres of freshwater impoundments managed for migratory waterfowl were formerly the rice fields of plantations dating back to the mid or late 1700's. Many of the dikes enclosing these pools were originally built during the rice culture era.

All dikes are open to foot and bicycle travel during daylight hours, unless otherwise posted, and provide excellent wildlife observation points. Waterfowl are most abundant from November through February, while alligators and other reptiles are frequently seen from March through October. Birdwatching opportunities are good all year, but are best from October through April when temperatures are mild and many species of waterfowl and other wintering birds are present.

Motorists are welcome on the Laurel Hill Wildlife Drive, which meanders along 4.5 miles of earthen dikes through managed freshwater pools and hardwood hammocks. Many hiking and biking trails are also available to the visiting public. Visitors can also enjoy other wildlife-dependent recreational opportunities such as hunting and fishing which are allowed at certain times of the year. The refuge Visitor Center is open Monday – Saturday from 9:00 AM – 4:00 PM and features an educational exhibit area as well as a refuge film.

Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 391,000 recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for about 375,000 visits with residents comprising 53 percent of Refuge visitation.

Table 1. Savannah NWR: 2017 Recreation Visits

Activity	Residents	Non-Residents	Total
Non-Consumptive:			
Pedestrian	24,292	36,438	60,730
Auto Tour	109,287	109,287	218,574
Boat Trail/Launch	6,960	773	7,733
Bicycle	1,749	437	2,186
Photography	38,250	16,393	54,643
Interpretation	395	44	439
Other Recreation	6,239	693	6,932
Visitor Center	7,166	16,722	23,888
Hunting:			
Big Game	990	990	1,979
Small Game	130	33	163
Migratory Birds	220	146	366
Fishing:	12,425	1,381	13,806
Total Visitation	208,103	183,336	391,439

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

Regional Economic Analysis

The economic area for the Refuge is the three-county area of Chatham and Effingham Counties in Georgia and Jasper County, South Carolina. It is assumed that visitor expenditures occur primarily within these counties. Visitor recreation expenditures for 2017 are shown in Table 2. Total expenditures were \$5.9 million with non-residents accounting for \$5.0 million or 81 percent of total expenditures. Expenditures on non-consumptive activities accounted for 94 percent of all expenditures.

Spending in the local area generates and supports economic activity within the three county area (Table 3). The contribution of recreational spending in local communities was associated with about 79 jobs, \$2.7 million in employment income, \$514,000 in total tax revenue, and \$8.8 million in economic output.

Table 2. Savannah NWR: Visitor Recreation Expenditures (2017 \$,000)

Activity	Residents	Non-Residents	Total
Non-Consumptive	\$951.7	\$4,932.5	\$5,884.2
Hunting	\$31.2	\$83.9	\$115.2
Fishing	\$212.2	\$31.0	\$243.2
Total Expenditures	\$1,195.2	\$5,047.4	\$6,242.6

Table 3. Savannah NWR: Local Economic Contributions Associated with Recreation Visits (2017 \$,000)

	Residents	Non-Residents	Total
Economic Output	\$1,717.4	\$7,131.7	\$8,849.0
Jobs	16	63	79
Job Income	\$530.9	\$2,142.6	\$2,673.5
State and Local Tax Revenue	\$97.2	\$416.7	\$513.9

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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