

The Economic Contributions of Recreational Visitation at Pinckney Island National Wildlife Refuge

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

Pinckney Island NWR, established December 4, 1975, was once included in the plantation of Major General Charles Cotesworth Pinckney, a prominent lawyer active in South Carolina politics from 1801 to 1815. Few traces of the island's plantation in the 1800's exist today. From 1937 to 1975, when it was donated to the Fish and Wildlife Service, Pinckney Island was privately owned and managed as a game preserve.

The 4,053 acre refuge includes Pinckney Island, Corn Island, Big and Little Harry Islands, Buzzard Island and numerous small hammocks. Pinckney is the largest of the islands and the only one open to public use. Nearly 67 percent of the refuge consists of salt marsh and tidal creeks. A wide variety of land types are found on Pinckney Island alone: salt marsh, forestland, brushland, fallow field and freshwater ponds. In combination, these habitats support a diversity of bird and plant life. Wildlife commonly observed on Pinckney Island include waterfowl, shorebirds, wading birds, raptors, neo-tropical migrants, white-tailed deer and American alligators, with large concentrations of white ibis, herons, and egrets.

Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 359,000 recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for about 304,000 visits with residents comprising 58 percent of Refuge visitation.

Table 1. Pinckney Island NWR: 2017 Recreation Visits

Activity	Residents	Non-Residents	Total
Non-Consumptive:			
Pedestrian	37,500	37,500	75,000
Auto Tour	80,000	80,000	160,000
Boat Trail/Launch	19,200	12,800	32,000
Bicycle	10,400	2,600	13,000
Photography	4,500	3,000	7,500
Interpretation	875	375	1,250
Other Recreation	12,000	3,000	15,000
Visitor Center	-	-	-
Hunting:			
Big Game	16	24	40
Small Game	-	-	-
Migratory Birds	-	-	-
Fishing:	44,000	11,000	55,000
Total Visitation	208,491	150,299	358,790

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

Regional Economic Analysis

The economic area for the Refuge is Beaufort County, South Carolina. It is assumed that visitor expenditures occur primarily within this county. Visitor recreation expenditures for 2017 are shown in Table 2. Total expenditures were \$6.5 million with non-residents accounting for \$4.9 million or 75 percent of total expenditures. Expenditures on non-consumptive activities accounted for 85 percent of all expenditures.

Spending in the local area generates and supports economic activity within Beaufort County (Table 3). The contribution of recreational spending in local communities was associated with about 72 jobs, \$2.6 million in employment income, \$652,000 in total tax revenue, and \$8.6 million in economic output.

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

Activity	Residents	Non-Residents	Total
Non-Consumptive	\$853.1	\$4,619.6	\$5,472.7
Hunting	\$0.5	\$2.3	\$2.7
Fishing	\$751.5	\$246.7	\$998.2
Total Expenditures	\$1,605.1	\$4,868.5	\$6,473.7

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

	Residents	Non-Residents	Total
Economic Output	\$2,116.0	\$6,459.0	\$8,575.1
Jobs	19	53	72
Job Income	\$645.0	\$1,931.4	\$2,576.4
State and Local Tax Revenue	\$153.1	\$498.6	\$651.7

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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