

The Economic Contributions of Recreational Visitation at Sam D. Hamilton Noxubee National Wildlife Refuge

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This paper establishes the economic contribution baseline for recreational visitation at Sam D. Hamilton Noxubee 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, Sam D. Hamilton Noxubee 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

Sam D. Hamilton Noxubee NWR is located within three counties (Noxubee, Oktibbeha, and Winston) in east-central Mississippi, and the visitor center is approximately 17 miles south-southwest of Starkville and approximately 120 miles north-northeast of Jackson, the capital city of Mississippi. There are four major access routes to the refuge: Oktoc Road from Starkville; Highway 25 by way of Loakfoma Road; the Brooksville-Louisville Road from Louisville; and, Lynn Creek Road from Brookville. The Refuge consists of 48,240 acres within the 61,715-acre approved acquisition boundary.

The majority of the Refuge, 94 percent, consists of forested habitat. The Refuge is home to the federally listed Red-cockaded Woodpecker and Wood Stork along with other native and migratory wildlife. There is a well-developed Visitor Services Program, modern visitor center and a separate state of the art environmental education building. The Refuge promotes all big six priority public use activities as described within the Improvement Act of 1997. Visitors participate in a variety of activities including fishing, waterfowl hunting, upland game hunting, big game hunting, use of the visitor center, hiking, motorized and non-motorized boating, auto tour routes, bird watching, wildlife photography, wildlife observation, environmental education and research. The Refuge serves as an outdoor classroom for Mississippi State University, Starkville School District, and other local educational institutions and home schooled children. The Refuge’s growing volunteer program provides many benefits to the Refuge but also allows the participating public the opportunity to gain unique and personal understandings of managing for wildlife on public lands. The Refuge also hosts an artist-in-residence program that has attracted artist from several countries around the world with three artist participating in the program yearly.

Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 293,000 recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for about 277,000 visits with residents comprising 58 percent of Refuge visitation.

Table 1. Sam D. Hamilton Noxubee NWR: 2017 Recreation Visits

Activity	Residents	Non-Residents	Total
Non-Consumptive:			
Pedestrian	98,700	42,300	141,000
Auto Tour	35,250	35,250	70,500
Boat Trail/Launch	1,251	1,251	2,502
Bicycle	1,770	590	2,360
Photography	3,350	3,350	6,700
Interpretation	300	300	600
Other Recreation	4,600	4,600	9,200
Visitor Center	17,583	26,374	43,957
Hunting:			
Big Game	1,086	4,342	5,428
Small Game	977	2,280	3,257
Migratory Birds	280	120	400
Fishing:	3,754	3,754	7,507
Total Visitation	168,900	124,511	293,411

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

Regional Economic Analysis

The economic area for the Refuge is the three-county area of Noxubee, Oktibbeha, and Winston Counties in Mississippi. It is assumed that visitor expenditures occur primarily within these counties. Visitor recreation expenditures for 2017 are shown in Table 2. Total expenditures were \$8.7 million with non-residents accounting for \$6.9 million or 79 percent of total expenditures. Expenditures on non-consumptive activities accounted for 88 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 117 jobs, \$2.9 million in employment income, \$932,000 in total tax revenue, and \$11.0 million in economic output.

Table 2. Sam D. Hamilton Noxubee NWR: Visitor Recreation Expenditures (2017 \$,000)

Activity	Residents	Non-Residents	Total
Non-Consumptive	\$1,619.9	\$6,076.8	\$7,696.7
Hunting	\$58.4	\$550.8	\$609.2
Fishing	\$171.0	\$224.5	\$395.4
Total Expenditures	\$1,849.2	\$6,852.1	\$8,701.3

Table 3. Sam D. Hamilton Noxubee NWR: Local Economic Contributions Associated with Recreation Visits (2017 \$,000)

	Residents	Non-Residents	Total
Economic Output	\$2,385.5	\$8,642.4	\$11,027.9
Jobs	26	91	117
Job Income	\$647.1	\$2,274.0	\$2,921.1
State and Local Tax Revenue	\$208.9	\$722.6	\$931.6

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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