

The Economic Contributions of Recreational Visitation At Black Bayou Lake National Wildlife Refuge

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This paper establishes the economic contribution baseline for recreational visitation at Black Bayou Lake 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, Black Bayou Lake 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

Black Bayou Lake National Wildlife Refuge was established in 1997 through a unique partnership with the city of Monroe, Louisiana. The 2,000 acre scenic lake is owned by the city and serves as its secondary water source. The U.S. Fish and Wildlife Service (Service) has a free 99 year management lease on the lake. The Service purchased 2,200 acres of land surrounding the lake, which expanded the refuge to 4,200 acres and protected most of the lake's watershed. The beautiful natural lake is studded with picturesque cypress and tupelo trees, and surrounded by swamps that graduate into bottomland hardwoods and then into upland mixed pine/hardwoods. The Refuge supports an excellent fisheries resource and provides valuable habitat for migratory waterfowl, neotropical migratory songbirds, and many resident wildlife species.

This semi-urban refuge is ideally located to provide a place for people to connect with the natural world. It is one of four refuges managed in the North Louisiana Refuges Complex. The complex visitor center, a restored planter's house, is situated on the 40 acre Black Bayou Lake Environmental Education Center. Adjacent to the visitor center are an arboretum with over 100 native Louisiana woody plants and a prairie demonstration area with native grasses and wildflowers. Facilities also include interactive visitor center exhibits, a mile long raised asphalt/boardwalk nature trail with 400 foot wildlife pier, boat launch, amphitheater and pavilion, a raised observation deck with spotting scope and several informational kiosks. Members of Friends of Black Bayou, Inc., a refuge support group, provide thousands of hours of services for the Refuge.

Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 48,000 recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for about 43,000 visits with residents comprising 61 percent of Refuge visitation.

Table 1. Black Bayou Lake NWR: 2017 Recreation Visits

Activity	Residents	Non-Residents	Total
Non-Consumptive:			
Pedestrian	8,820	5,880	14,700
Auto Tour	-	-	-
Boat Trail/Launch	3,205	1,374	4,579
Bicycle	6	2	8
Photography	1,147	765	1,912
Interpretation	6,090	2,610	8,700
Other Recreation	140	60	200
Visitor Center	6,268	6,268	12,536
Hunting:			
Big Game	434	186	620
Small Game	131	56	187
Migratory Birds	110	47	157
Fishing:	3,205	1,374	4,579
Total Visitation	29,557	18,621	48,178

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

Regional Economic Analysis

The economic area for the Refuge is Ouachita Parish, Louisiana. It is assumed that visitor expenditures occur primarily within this parish. Visitor recreation expenditures for 2017 are shown in Table 2. Total expenditures were \$853,000 with non-residents accounting for \$588,000 or 69 percent of total expenditures. Expenditures on non-consumptive activities accounted for 76 percent of all expenditures.

Spending in the local area generates and supports economic activity within Ouachita Parish (Table 3). The contribution of recreational spending in local communities was associated with about 11 jobs, \$363,000 in employment income, \$98,000 in total tax revenue, and \$1.2 million in economic output.

Table 2. Black Bayou Lake NWR: Visitor Recreation Expenditures (2017 \$,000)

Activity	Residents	Non-Residents	Total
Non-Consumptive	\$140.3	\$506.7	\$647.0
Hunting	\$14.9	\$19.5	\$34.4
Fishing	\$109.5	\$61.6	\$171.1
Total Expenditures	\$264.7	\$587.8	\$852.5

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

	Residents	Non-Residents	Total
Economic Output	\$378.7	\$859.5	\$1,238.2
Jobs	3	7	11
Job Income	\$112.2	\$251.2	\$363.4
State and Local Tax Revenue	\$29.1	\$69.0	\$98.1

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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