

The Economic Contributions of Recreational Visitation at Felsenthal National Wildlife Refuge

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

Established in 1975, Felsenthal National Wildlife Refuge is located in southeast Arkansas, approximately six miles west of the town of Crossett. Named for a small community located at its southwest corner, this 66,424 acre refuge contains an abundance of water resources dominated by the Ouachita and Saline Rivers and the Felsenthal Pool.

This low lying area is dissected by an intricate system of rivers, creeks, sloughs, buttonbush swamps and lakes throughout a vast bottomland hardwood forest that gradually rises to an upland forest community. Historically, periodic flooding of the "bottoms" during winter and spring provided excellent wintering waterfowl habitat. These wetlands, in combination with the pine and upland hardwood forest on the higher ridges, support a wide diversity of native plants and animals.

Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 263,000 recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for about 167,000 visits with residents comprising 64 percent of Refuge visitation.

Table 1. Felsenthal NWR: 2017 Recreation Visits

Activity	Residents	Non-Residents	Total
Non-Consumptive:			
Pedestrian	112	448	560
Auto Tour	2,255	2,255	4,510
Boat Trail/Launch	97,650	41,850	139,500
Bicycle	19	2	21
Photography	26	26	51
Interpretation	392	168	560
Other Recreation	7,475	7,475	14,950
Visitor Center	4,935	2,115	7,050
Hunting:			
Big Game	2,691	6,279	8,970
Small Game	5,616	1,404	7,020
Migratory Birds	12,080	18,120	30,200
Fishing:	34,965	14,985	49,950
Total Visitation	168,215	95,127	263,342

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

Regional Economic Analysis

The economic area for the Refuge is the three-county area of Ashley, Bradley, and Union Counties in Arkansas. It is assumed that visitor expenditures occur primarily within these counties. Visitor recreation expenditures for 2017 are shown in Table 2. Total expenditures were \$11.5 million with non-residents accounting for \$7.8 million or 68 percent of total expenditures. Expenditures on non-consumptive activities accounted for 49 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 133 jobs, \$3.9 million in employment income, \$1.1 million in total tax revenue, and \$13.6 million in economic output.

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

Activity	Residents	Non-Residents	Total
Non-Consumptive	\$1,363.7	\$4,324.0	\$5,687.7
Hunting	\$731.4	\$2,621.0	\$3,352.3
Fishing	\$1,592.6	\$896.1	\$2,488.7
Total Expenditures	\$3,687.7	\$7,841.1	\$11,528.8

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

	Residents	Non-Residents	Total
Economic Output	\$4,268.0	\$9,291.0	\$13,558.9
Jobs	45	89	133
Job Income	\$1,277.3	\$2,662.1	\$3,939.4
State and Local Tax Revenue	\$333.1	\$734.2	\$1,067.4

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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