

The Economic Contributions of Recreational Visitation at Wallkill River National Wildlife Refuge

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

Wallkill River National Wildlife Refuge was established to conserve and enhance populations of wildlife and their habitats, to protect and enhance water quality, and to provide opportunities for wildlife-dependent recreation and research. The Refuge conserves the biological diversity of the Wallkill Valley by protecting and managing land, with a special emphasis on forest-dwelling and grassland birds, migrating waterfowl, wintering raptors, and endangered species. The North American Waterfowl Management Plan identifies the Wallkill River bottomlands as a priority focus area for waterfowl management within New Jersey.

Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 53,000 recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for about 48,000 visits with residents comprising 54 percent of Refuge visitation.

Table 1. Wallkill River NWR: 2017 Recreation Visits

Activity	Residents	Non-Residents	Total
Non-Consumptive:			
Pedestrian	11,250	11,250	22,500
Auto Tour	150	50	200
Boat Trail/Launch	375	125	500
Bicycle	188	63	250
Photography	413	138	550
Interpretation	938	313	1,250
Other Recreation	8,625	2,875	11,500
Visitor Center	2,688	8,063	10,750
Hunting:			
Big Game	2,025	675	2,700
Small Game	-	-	-
Migratory Birds	420	140	560
Fishing:	1,650	550	2,200
Total Visitation	28,720	24,240	52,960

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

Regional Economic Analysis

The economic area for the Refuge is the two-county area of Sussex County, New Jersey and Orange County, New York. It is assumed that visitor expenditures occur primarily within these counties. Visitor recreation expenditures for 2017 are shown in Table 2. Total expenditures were \$1.1 million with non-residents accounting for \$793,000 or 75 percent of total expenditures. Expenditures on non-consumptive activities accounted for 81 percent of all expenditures.

Spending in the local area generates and supports economic activity within the two county area (Table 3). The contribution of recreational spending in local communities was associated with about 15 jobs, \$661,000 in employment income, \$153,000 in total tax revenue, and \$1.8 million in economic output.

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

Activity	Residents	Non-Residents	Total
Non-Consumptive	\$147.0	\$704.7	\$851.7
Hunting	\$62.7	\$47.4	\$110.1
Fishing	\$52.3	\$41.0	\$93.3
Total Expenditures	\$262.0	\$793.0	\$1,055.1

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

	Residents	Non-Residents	Total
Economic Output	\$492.7	\$1,354.8	\$1,847.5
Jobs	4	11	15
Job Income	\$188.2	\$472.9	\$661.1
State and Local Tax Revenue	\$36.2	\$116.8	\$152.9

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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