

The Economic Contributions of Recreational Visitation at Montezuma National Wildlife Refuge

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

Establishment of the Montezuma National Wildlife Refuge by the U.S. Fish & Wildlife Service (USFWS) in 1938 was the first step of many to restore the area back to its historic expanse of marshes. Once drained as a result of dam and canal construction, area wildlife virtually went the way of the water—gone. But, with the help of the Civilian Conservation Corps, a series of constructed dikes began to hold water and wildlife returned.

Today, the Refuge continues to work toward restoring the historic Montezuma Marshes. As part of the Montezuma Wetlands Complex—a partnership between the USFWS, the New York State Department of Environmental Conservation, Ducks Unlimited, The Nature Conservancy, private landowners, and other special interest groups—the Refuge acquires land through deed or easement and restores it to provide critical habitat to migratory birds and other wildlife.

You, too, can benefit from the wonders of Montezuma! The Refuge offers a variety of opportunities to our visitors such as the 3-mile Wildlife Drive, 2-mile Summertime Bike & Hike Trail, 5 miles of walking trails, and waterfowl and deer hunting, including youth hunting.

Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 231,000 recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for about 227,000 visits with residents comprising 58 percent of Refuge visitation.

Table 1. Montezuma NWR: 2017 Recreation Visits

Activity	Residents	Non-Residents	Total
Non-Consumptive:			
Pedestrian	26,333	11,286	37,619
Auto Tour	89,465	73,199	162,664
Boat Trail/Launch	5	5	9
Bicycle	79	236	315
Photography	989	532	1,521
Interpretation	919	1,379	2,298
Other Recreation	-	-	-
Visitor Center	13,793	9,195	22,988
Hunting:			
Big Game	1,913	213	2,126
Small Game	-	-	-
Migratory Birds	1,312	328	1,640
Fishing:	-	-	-
Total Visitation	134,808	96,372	231,180

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

Regional Economic Analysis

The economic area for the Refuge is Cayuga, Seneca, and Wayne Counties in 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 \$3.5 million with non-residents accounting for \$2.8 million or 79 percent of total expenditures. Expenditures on non-consumptive activities accounted for 98 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 90 jobs, \$8.0 million in employment income, \$983,000 in total tax revenue, and \$7.3 million in economic output.

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

Activity	Residents	Non-Residents	Total
Non-Consumptive	\$668.9	\$2,736.3	\$3,405.2
Hunting	\$44.9	\$14.7	\$59.6
Fishing	\$0.0	\$0.0	\$0.0
Total Expenditures	\$713.8	\$2,751.0	\$3,464.8

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

	Residents	Non-Residents	Total
Economic Output	\$1,802.8	\$5,536.1	\$7,338.9
Jobs	24	66	90
Job Income	\$2,276.8	\$5,731.0	\$8,007.8
State and Local Tax Revenue	\$242.1	\$741.3	\$983.4

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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