

The Economic Contributions of Recreational Visitation at Elizabeth Hartwell Mason Neck National Wildlife Refuge

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This paper establishes the economic contribution baseline for recreational visitation at Elizabeth Hartwell Mason Neck 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, Elizabeth Hartwell Mason Neck 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

Eighteen miles south of Washington D.C., on the banks of the Potomac River, lays a peninsula known as Mason Neck. Here, on February 1, 1969, the U.S. Fish and Wildlife Service created the first national wildlife refuge established specifically for the protection of our nation’s symbol, the bald eagle. Once on the brink of extinction, the bald eagle enjoys the safety of the refuge’s forests and shoreline for nesting and foraging along the upper portions of the Potomac River and its tributaries.

Elizabeth Hartwell Mason Neck National Wildlife Refuge is adjacent to a rapidly growing metropolitan area where habitat is constantly altered. The Refuge provides wildlife a relatively remote 2,277 acre area of upland forests and freshwater marshes extending into the Potomac River. Refuge habitats host over 211 bird species, more than 200 plant species, 31 mammal species, and 40 species of reptiles and amphibians. The Refuge is home to Great Marsh, a 207 acre tidal freshwater marsh, and one of Virginia’s largest breeding great blue heron colonies. Common species observed include bald eagle, wood thrush, white-tailed deer, groundhog, and wood duck.

Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 154,000 recreational visits in 2017 which contributed to the economic effect of the Refuge. Auto tour visits accounted for 65 percent of visits with residents comprising 81 percent of Refuge visitation. Other recreation includes the Annual Mason Neck Eagle Festival.

Table 1. Elizabeth Hartwell Mason Neck NWR: 2017 Recreation Visits

Activity	Residents	Non-Residents	Total
Non-Consumptive:			
Pedestrian	20,154	5,038	25,192
Auto Tour	78,208	19,552	97,760
Boat Trail/Launch	-	-	-
Bicycle	7,600	400	8,000
Photography	15,115	3,779	18,894
Interpretation	405	71	476
Other Recreation	3,137	554	3,690
Visitor Center	-	-	-
Hunting:			
Big Game	-	-	-
Small Game	-	-	-
Migratory Birds	-	-	-
Fishing:	-	-	-
Total Visitation	124,618	29,394	154,012

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

Regional Economic Analysis

The economic area for the Refuge is Fairfax County, Virginia. It is assumed that visitor expenditures occur primarily within this county. Visitor recreation expenditures for 2017 are shown in Table 2. Total expenditures were \$1.8 million with non-residents accounting for \$1.1 million or 58 percent of total expenditures.

Spending in the local area generates and supports economic activity within Fairfax County (Table 3). The contribution of recreational spending in local communities was associated with about 20 jobs, \$949,000 in employment income, \$159,000 in total tax revenue, and \$2.6 million in economic output.

Table 2. Elizabeth Hartwell Mason Neck NWR: Visitor Recreation Expenditures (2017 \$,000)

Activity	Residents	Non-Residents	Total
Non-Consumptive	\$752.3	\$1,059.6	\$1,811.9
Hunting	-	-	-
Fishing	-	-	-
Total Expenditures	\$752.3	\$1,059.6	\$1,811.9

Table 3. Elizabeth Hartwell Mason Neck NWR: Local Economic Contributions Associated with Recreation Visits (2017 \$,000)

	Residents	Non-Residents	Total
Economic Output	\$1,088.2	\$1,521.1	\$2,609.4
Jobs	9	11	20
Job Income	\$407.2	\$541.5	\$948.7
State and Local Tax Revenue	\$61.8	\$97.2	\$159.0

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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