

The Economic Contributions of Recreational Visitation at John Heinz National Wildlife Refuge at Tinicum

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This paper establishes the economic contribution baseline for recreational visitation at John Heinz National Wildlife Refuge at Tinicum (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, John Heinz National Wildlife Refuge at Tinicum 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

John Heinz National Wildlife Refuge at Tinicum, *America’s First Urban Refuge*, is located within the city limits of Philadelphia and Delaware County. The Refuge protects the largest remaining freshwater tidal marsh in Pennsylvania. The marsh is a vital feeding and resting place for birds migrating along the Atlantic Flyway and provides diverse habitats for a wide range of resident wildlife including deer, butterflies, fish, and eagles. This protected greenspace is a welcome break from the busy urban setting that surrounds the Refuge. With over ten miles of trails to explore the wetlands and forests provide important habitat for wildlife and people.

The location of the Refuge within one of the largest metropolitan regions in the country provides the service unique opportunities for outreach. The Refuge is committed to providing a diverse range of community programming and educational activities tailored to local residents and working with partners to engage with local citizens to find, appreciate, and care for nature in their communities. Recreational activities for all ages and skill levels are provided to the public in one of the largest greenspaces in the city including fishing, archery, paddling, and birding programs.

Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 358,000 recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for about 349,000 visits with residents comprising 91 percent of Refuge visitation. The Refuge hosts a variety of free community events throughout the year including nature festivals, free fishing days, guided walks, and archery lessons.

Table 1. John Heinz National Wildlife Refuge at Tinicum: 2017 Recreation Visits

Activity	Residents	Non-Residents	Total
Non-Consumptive:			
Pedestrian	229,197	12,063	241,260
Auto Tour	-	-	-
Boat Trail/Launch	1,296	144	1,440
Bicycle	6,935	365	7,300
Photography	20,000	5,000	25,000
Interpretation	25,105	6,276	31,381
Other Recreation	2,000	500	2,500
Visitor Center	31,680	7,920	39,600
Hunting:			
Big Game	-	-	-
Small Game	-	-	-
Migratory Birds	-	-	-
Fishing:	9,144	481	9,625
Total Visitation	325,357	32,749	358,106

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

Regional Economic Analysis

The economic area for the Refuge is the two-county area of Delaware and Philadelphia Counties in Pennsylvania. It is assumed that visitor expenditures occur primarily within these counties. Visitor recreation expenditures for 2017 are shown in Table 2. Total expenditures were \$3.0 million with non-residents accounting for \$1.1 million or 35 percent of total expenditures. Expenditures on non-consumptive activities accounted for 95 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 35 jobs, \$1.7 million in employment income, \$272,000 in total tax revenue, and \$4.6 million in economic output.

Table 2. John Heinz National Wildlife Refuge at Tinicum: Visitor Recreation Expenditures (2017 \$,000)

Activity	Residents	Non-Residents	Total
Non-Consumptive	\$1,826.5	\$1,038.5	\$2,865.0
Hunting	-	-	-
Fishing	\$144.9	\$17.9	\$162.8
Total Expenditures	\$1,971.3	\$1,056.4	\$3,027.8

Table 3. John Heinz National Wildlife Refuge at Tinicum: Local Economic Contributions Associated with Recreation Visits (2017 \$,000)

	Residents	Non-Residents	Total
Economic Output	\$3,011.7	\$1,612.0	\$4,623.7
Jobs	24	11	35
Job Income	\$1,077.2	\$579.8	\$1,657.0
State and Local Tax Revenue	\$173.5	\$98.7	\$272.1

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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