

The Economic Contributions of Recreational Visitation at Billy Frank Jr. Nisqually National Wildlife Refuge

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Division of Economics
U.S. Fish & Wildlife Service

This paper establishes the economic contribution baseline for recreational visitation at Billy Frank Jr. Nisqually 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, Billy Frank Nisqually 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

Billy Frank Jr. Nisqually National Wildlife Refuge is located where the freshwater of the Nisqually River meets the saltwater of South Puget Sound, creating the Nisqually River Delta. The delta is a biologically-rich and diverse area that supports a variety of habitats including estuary, riparian woodlands, and freshwater wetlands. It is considered the last unspoiled major estuary in Puget Sound. The Nisqually River Delta has been designated as a National Natural Landmark because of its national significance as one of the best examples of this kind of coastal salt marsh system remaining in the North Pacific.

Billy Frank Jr. Nisqually Refuge is famous for the more than 291 migratory bird species that use the refuge for migration, wintering, or breeding. The Refuge provides rearing and migration habitat for several salmon species including the Federally-listed Chinook salmon and steelhead trout. This urban refuge has four miles of trails offering visitors opportunities to experience the natural environment throughout the year. The Black River Unit, southwest of Olympia, provides high quality habitat for federally threatened Oregon spotted frog, Coho salmon, cutthroat trout, migratory birds, and a diversity of other species. The Black River is one of the largest undisturbed freshwater wetland systems remaining in western Washington. Situated between Olympia and Seattle and within 100 miles of more than 4 million people, Billy Frank Jr. Nisqually Refuge is visited each year by people who come to enjoy and learn about these sensitive natural resources. The Refuge provides environmental education programs for over 10,000 school children each year.

Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 289,000 recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for about 286,000 visits with residents comprising 61 percent of Refuge visitation.

Table 1. Billy Frank Jr. Nisqually NWR: 2017 Recreation Visits

Activity	Residents	Non-Residents	Total
Non-Consumptive:			
Pedestrian	122,445	81,630	204,075
Auto Tour	-	-	-
Boat Trail/Launch	6,030	670	6,700
Bicycle	-	-	-
Photography	18,367	12,244	30,611
Interpretation	3,030	1,298	4,328
Other Recreation	250	250	500
Visitor Center	23,938	15,958	39,896
Hunting:			
Big Game	-	-	-
Small Game	-	-	-
Migratory Birds	126	14	140
Fishing:	2,560	640	3,200
Total Visitation	176,745	112,705	289,450

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

Regional Economic Analysis

The economic area for the Refuge is the two-county area of Thurston and Pierce Counties in Washington. It is assumed that visitor expenditures occur primarily within these counties. Visitor recreation expenditures for 2017 are shown in Table 2. Total expenditures were \$11.1 million with non-residents accounting for \$8.7 million or 79 percent of total expenditures. Expenditures on non-consumptive activities accounted 99.91 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 111 jobs, \$4.1 million in employment income, \$1.5 million in total tax revenue, and \$15.1 million in economic output.

Table 2. Billy Frank Jr. Nisqually NWR: Visitor Recreation Expenditures (2017 \$,000)

Activity	Residents	Non-Residents	Total
Non-Consumptive	\$2,246.7	\$8,673.9	\$10,920.6
Hunting	\$4.3	\$1.1	\$5.3
Fishing	\$87.3	\$51.9	\$139.2
Total Expenditures	\$2,338.2	\$8,726.9	\$11,065.1

Table 3. Billy Frank Jr. Nisqually NWR: Local Economic Contributions Associated with Recreation Visits (2017 \$,000)

	Residents	Non-Residents	Total
Economic Output	\$3,161.8	\$11,981.8	\$15,143.6
Jobs	25	86	111
Job Income	\$882.6	\$3,173.6	\$4,056.2
State and Local Tax Revenue	\$310.6	\$1,198.3	\$1,508.9

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 8 activity visits to the refuge; yet, they are only four visitors.

References

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