

The Economic Contributions of Recreational Visitation at Julia Butler Hansen Refuge for Columbian White-tailed Deer

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This paper establishes the economic contribution baseline for recreational visitation at Julia Butler Hansen Refuge for Columbian White-tail Deer (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, Julia Butler Hansen 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

Located in south western Washington, the Julia Butler Hansen Refuge was established in 1971 specifically to protect and manage the then endangered Columbian white-tailed deer. The Refuge contains over 6,000 acres of pastures, forested tidal swamps, brushy woodlots, marshes and sloughs along the Columbia River in both Washington and Oregon. The valuable habitat the refuge preserves for the deer also benefits a large variety of wintering birds, a small herd of Roosevelt elk, river otter, various reptiles and amphibians including painted turtles and red-legged frogs, great horned owls and several pairs of nesting bald eagles and ospreys.

Refuge access for visitors encourages activities such as wildlife viewing, photography, hunting, fishing, boating and hiking. The public also has the opportunity to volunteer with refuge staff on wildlife monitoring and habitat improvement projects, as well as take part in environmental education and interpretation programs

Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 45,000 recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for about 41,000 visits with residents comprising 92 percent of Refuge visitation.

Table 1. Julia Butler Hansen Refuge: 2017 Recreation Visits

Activity	Residents	Non-Residents	Total
Non-Consumptive:			
Pedestrian	2,200	1,500	3,700
Auto Tour	19,125	6,375	25,500
Boat Trail/Launch	2,100	1,400	3,500
Bicycle	1,100	750	1,850
Photography	750	500	1,250
Interpretation	900	100	1,000
Other Recreation	60	40	100
Visitor Center	3,375	1,125	4,500
Hunting:			
Big Game	23	3	26
Small Game	0	0	0
Migratory Birds	600	400	1,000
Fishing:	2,340	260	2,600
Total Visitation	32,573	12,453	45,026

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

Regional Economic Analysis

The economic area for the Refuge is the three-county area of Clatsop and Columbia Counties in Oregon and Wahkiakum County 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 \$1.0 million with non-residents accounting for \$679,000 or 65 percent of total expenditures. Expenditures on non-consumptive activities accounted for 82 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 13 jobs, \$396,000 in employment income, \$66,000 in total tax revenue, and \$1.3 million in economic output.

Table 2. Julia Butler Hansen Refuge: Visitor Recreation Expenditures (2017 \$,000)

Activity	Residents	Non-Residents	Total
Non-Consumptive	\$237.0	\$616.0	\$853.0
Hunting	\$25.4	\$37.3	\$62.7
Fishing	\$95.7	\$25.3	\$121.0
Total Expenditures	\$358.2	\$678.6	\$1,036.7

Table 3. Julia Butler Hansen Refuge: Local Economic Contributions Associated with Recreation Visits (2017 \$,000)

	Residents	Non-Residents	Total
Economic Output	\$464.2	\$881.5	\$1,345.8
Jobs	5	8	13
Job Income	\$132.2	\$263.7	\$395.9
State and Local Tax Revenue	\$20.4	\$45.5	\$65.9

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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