

# **The Economic Contributions of Recreational Visitation at Oregon Islands National Wildlife Refuge**

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Division of Economics  
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This paper establishes the economic contribution baseline for recreational visitation at Oregon Islands 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, Oregon Islands 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**

From nearly every viewpoint on the Oregon coast, colossal rocks can be seen jutting out of the Pacific Ocean, stark monoliths amidst pounding surf. Established on May 6, 1935, as a refuge and breeding ground for seabirds and marine mammals, the scenic and rugged Oregon Islands Refuge includes 1,853 rocks, reefs, and islands and stretches from Tillamook Head near Seaside south to the California border. All of the rocks and islands of the refuge are designated National Wilderness Areas, with the exception of 1-acre Tillamook Rock. Most of Oregon’s estimated 1.2 million nesting seabirds use Oregon Islands Refuge as a place to raise their young, and Oregon’s seals and sea lions use the islands as a place to haul out and rest or to give birth to their pups.

The Refuge also protects two headlands: Coquille Point and Crook Point. Coquille Point is in the city of Bandon and provides a buffer zone between mainland development and the rocky islands. It is a spectacular place for visitors to watch seabirds and harbor seals. An accessible trail winds over the headland and features interpretive panels that share stories about the area's wildlife.

Crook Point is located along the southern Oregon coast near Gold Beach and contains rare plants, unique geological formations, and one mile of pristine beach with interspersed rocky intertidal areas. It's also a buffer, protecting seabird colonies from encroaching development. It is next to the Mack Reef archipelago home to the second-largest concentration of nesting seabirds in Oregon.

## Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 10.2 million recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for all visits with non-residents comprising 72 percent of Refuge visitation. Interpretation activities are primarily through one-on-one conversations with refuge volunteers who are located onsite at popular refuge locations to talk with and educate visitors about the marine wildlife.

**Table 1. Oregon Islands NWR: 2017 Recreation Visits**

Activity	Residents	Non-Residents	Total
<b>Non-Consumptive:</b>			
Pedestrian	1,754,239	4,093,225	5,847,464
Auto Tour	-	-	-
Boat Trail/Launch	-	-	-
Bicycle	-	-	-
Photography	1,023,306	3,069,918	4,093,224
Interpretation	34,589	196,002	230,590
Other Recreation	-	-	-
Visitor Center	-	-	-
<b>Hunting:</b>			
Big Game	-	-	-
Small Game	-	-	-
Migratory Birds	-	-	-
<b>Fishing:</b>	-	-	-
<b>Total Visitation</b>	<b>2,812,134</b>	<b>7,359,144</b>	<b>10,171,278</b>

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

## Regional Economic Analysis

The economic area for the Refuge is the five-county area of Clatsop, Coos, Curry, Lincoln, and Tillamook Counties in Oregon. It is assumed that visitor expenditures occur primarily within these counties. Visitor recreation expenditures for 2017 are shown in Table 2. Total expenditures were \$499.1 million with non-residents accounting for \$469.4 million or 94 percent of total expenditures. Expenditures on non-consumptive activities accounted for all expenditures.

Spending in the local area generates and supports economic activity within the five county area (Table 3). The contribution of recreational spending in local communities was associated with about 5,905 jobs, \$206.2 million in employment income, \$34.5 million in total tax revenue, and \$665.1 million in economic output.

**Table 2. Oregon Islands NWR: Visitor Recreation Expenditures (2017 \$,000)**

<b>Activity</b>	<b>Residents</b>	<b>Non-Residents</b>	<b>Total</b>
Non-Consumptive	\$29,829.6	\$469,363.2	\$499,192.8
Hunting	-	-	-
Fishing	-	-	-
<b>Total Expenditures</b>	<b>\$29,829.6</b>	<b>\$469,363.2</b>	<b>\$499,192.8</b>

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

	<b>Residents</b>	<b>Non-Residents</b>	<b>Total</b>
Economic Output	\$39,793.6	\$625,287.9	\$665,081.5
Jobs	384	5,521	5,905
Job Income	\$11,648.7	\$194,545.9	\$206,194.5
State and Local Tax Revenue	\$1,844.1	\$32,625.1	\$34,469.2

## 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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