

The Economic Contributions of Recreational Visitation at Bear Lake National Wildlife Refuge

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This paper establishes the economic contribution baseline for recreational visitation at Bear Lake 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, Bear Lake 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

Bear Lake National Wildlife Refuge, which was established in 1968, is located within Bear Lake County, near the community of Montpelier, Idaho. The 18,169-acre Refuge lies in Bear Lake Valley at an elevation of 5,925 feet and occupies a portion of the historic Dingle Swamp along the Bear River and north of Bear Lake (Map 1). The Refuge is surrounded by mountains, most notably the 6,800-foot rocky slope of Merkley Mountain to the east.

Bear Lake NWR is managed by the U.S. Fish and Wildlife Service for the protection of Dingle Swamp and to provide resting and feeding habitat for migrating waterfowl. The Refuge is composed of a 16,000-acre emergent marsh, 500 acres of wet meadows, 1,250 acres of uplands, and 5 miles of riparian corridor. Approximately 100 species of migratory birds nest at Bear Lake NWR, including large concentrations of colonial waterbirds. Other species of non-migratory wildlife use the Refuge throughout the year. Bear Lake NWR has been designated as a Globally Important Bird Area by the National Audubon Society based on its contributions to colonial nesting waterbird habitat.

Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 11,000 recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for about 11,000 visits with residents comprising 24 percent of Refuge visitation.

Table 1. Bear Lake NWR: 2017 Recreation Visits

Activity	Residents	Non-Residents	Total
Non-Consumptive:			
Pedestrian	90	810	900
Auto Tour	2,086	4,866	6,952
Boat Trail/Launch	7	59	65
Bicycle	2	14	16
Photography	169	1,524	1,693
Interpretation	90	510	600
Other Recreation	10	-	10
Visitor Center	-	-	-
Hunting:	-	-	-
Big Game	-	-	-
Small Game	8	8	15
Migratory Birds	68	158	226
Fishing:	-	184	184
Total Visitation	2,528	8,133	10,661

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

Regional Economic Analysis

The economic area for the Refuge is Bear Lake County, Idaho. It is assumed that visitor expenditures occur primarily within this county. Visitor recreation expenditures for 2017 are shown in Table 2. Total expenditures were \$371,000 with non-residents accounting for \$351,000 or 95 percent of total expenditures. Expenditures on non-consumptive activities accounted for 92 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 8 jobs, \$233,000 in employment income, \$34,000 in total tax revenue, and \$415,000 in economic output.

Table 2. Bear Lake NWR: Visitor Recreation Expenditures (2017 \$,000)

Activity	Residents	Non-Residents	Total
Non-Consumptive	\$17.2	\$324.6	\$341.8
Hunting	\$2.8	\$14.9	\$17.7
Fishing	-	\$11.9	\$11.9
Total Expenditures	\$20.0	\$351.4	\$371.4

Table 3. Bear Lake NWR: Local Economic Contributions Associated with Recreation Visits (2017 \$,000)

	Residents	Non-Residents	Total
Economic Output	\$31.0	\$383.9	\$415.0
Jobs	1	7	8
Job Income	\$20.5	\$212.1	\$232.6
State and Local Tax Revenue	\$2.6	\$31.7	\$34.3

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

Minnesota IMPLAN Group, Inc. *IMPLAN System (2015 data and software)*.

U. S. Department of the Interior, U.S. Fish and Wildlife Service, Division of Federal Aid. 2013. *2011 National Survey of Fishing, Hunting, and Wildlife Associated Recreation*. Washington, D.C.

U.S. Department of the Interior, U.S. Fish and Wildlife Service, National Wildlife Refuge System. *Refuge Annual Performance Plan 2017*. Washington, D.C. Unpublished.

Varian, Hal R. 2010. *Intermediate Microeconomics: A Modern Approach*. 8th ed. New York: W.W. Norton & Company.