

# **The Economic Contributions of Recreational Visitation at Santa Ana National Wildlife Refuge**

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This paper establishes the economic contribution baseline for recreational visitation at Santa Ana 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, Santa Ana 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**

Santa Ana National Wildlife Refuge is made-up of 2,088 acres along the banks of the Rio Grande, south of Alamo in the Lower Rio Grande Valley in Hidalgo County, South Texas where subtropical, Gulf coast, Great Plains and Chihuahuan desert meet. There are over 400 species of birds, 300 species of butterflies, and 450 types of plants. It was established in 1943 for the protection of migratory birds and is a great place to visit for birding and draws in people from all to look for birds like the Buff-bellied Hummingbird, Green Jay and Altamira Orioles. There are 12 miles of trails, visitor center, suspension bridge and 40 foot tower for visitors to come and explore. Year-round educational programs, seasonal tram and birding tours, special events, summer programs and more that are offered to the public.

## **Activity Levels**

Table 1 shows the recreation visits for the Refuge. The Refuge had about 196,000 recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for all visits with residents comprising 68 percent of Refuge visitation.

**Table 1. Santa Ana NWR: 2017 Recreation Visits**

<b>Activity</b>	<b>Residents</b>	<b>Non-Residents</b>	<b>Total</b>
<b>Non-Consumptive:</b>			
Pedestrian	70,000	30,000	100,000
Auto Tour	-	-	-
Boat Trail/Launch	-	-	-
Bicycle	-	-	-
Photography	225	1,275	1,500
Interpretation	2,100	4,900	7,000
Other Recreation	1,400	600	2,000
Visitor Center	59,500	25,500	85,000
<b>Hunting:</b>			
Big Game	-	-	-
Small Game	-	-	-
Migratory Birds	-	-	-
<b>Fishing:</b>	-	-	-
<b>Total Visitation</b>	<b>133,225</b>	<b>62,275</b>	<b>195,500</b>

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

### **Regional Economic Analysis**

The economic area for the Refuge is Hidalgo County, Texas. It is assumed that visitor expenditures occur primarily within the county. Visitor recreation expenditures for 2017 are shown in Table 2. Total expenditures were \$2.2 million with non-residents accounting for \$1.3 million or 58 percent of total expenditures. Expenditures on non-consumptive activities accounted all expenditures.

Spending in the local area generates and supports economic activity within Hidalgo County (Table 3). The contribution of recreational spending in local communities was associated with about 30 jobs, \$1.0 million in employment income, \$340,000 in total tax revenue, and \$3.4 million in economic output.

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

<b>Activity</b>	<b>Residents</b>	<b>Non-Residents</b>	<b>Total</b>
Non-Consumptive	\$951.3	\$1,292.3	\$2,243.6
Hunting	-	-	-
Fishing	-	-	-
<b>Total Expenditures</b>	<b>\$951.3</b>	<b>\$1,292.3</b>	<b>\$2,243.6</b>

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

	<b>Residents</b>	<b>Non-Residents</b>	<b>Total</b>
Economic Output	\$1,448.8	\$1,965.9	\$3,414.7
Jobs	14	17	30
Job Income	\$484.6	\$559.2	\$1,043.9
State and Local Tax Revenue	\$151.5	\$188.3	\$339.7

## 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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