Q and A for Banking on Nature 2011: The Economic Impacts of National Wildlife Refuge Visitation to Local Communities

1. **What is the Banking on Nature report?**

   The Banking on Nature report is an economic analysis of how visitors to national wildlife refuges impact the economies of local regions. The report measures the economic impacts of employment, income, tax revenue and ecotourism. The report is produced periodically by U.S. Fish and Wildlife Service economists. This latest report looks at impacts from recreation visits to refuges in fiscal year 2011.

2. **How is the report used?**

   The report is used to help local communities better understand and measure the contributions of national wildlife refuges to their regional economies. Recreational visits to refuges boost local income and employment, through visitor spending on such things as hotel stays or restaurant and grocery purchases.

   The report considers economic impacts only. Environmental and health benefits provided by national wildlife refuges including the value of "ecosystem services" -- the catch-all term for enhancements such as cleaner air and water -- were not measured in this report,

3. **What is the economic analysis based on?**

   The economists use two major sources for the information in the report. The first is the 2011 National Survey of Fishing, Hunting and Wildlife-Associated Recreation, which the Service produces in conjunction with the U.S. Census Bureau. The survey estimates the number of people who participate in hunting, fishing, wildlife-watching and other wildlife-dependent activities, and the amount of money spent in pursuit of those activities.

   The second source of information is the Service's Refuge Annual Performance Plan, which includes information about recreation visits to the country's 561 national wildlife refuges.

   The national overview is extrapolated from findings on 92 individual refuges identified in the report.

4. **What is the total economic output of national wildlife refuges on local and regional communities?**

   Visitors to national wildlife refuges added $2.4 billion to regional economies. More than 35,000 jobs were supported by refuge visits, including jobs in hotels, restaurants, transportation and outdoor recreation. Those jobs generated $792.7 million in employment income. Refuge recreational spending generated about $342.9 million in local, state and Federal tax revenues.

   In addition, the analysis takes into account the benefits refuge visitors derive over and above what they would be willing to spend on the activity.

   Using those figures in total, and comparing them to the federal budget for the National Wildlife Refuge System, we estimate that for every $1 appropriated in FY 2011, national wildlife refuges contributed an average $4.87 to regional economies.

   For some refuges, the total economic output is much higher than the national average. Merritt Island National Wildlife Refuge, for example, has a total economic output of $17.61 for every

$1 spent by the federal government. Merritt Island, located within the John F. Kennedy Space Center at Cape Canaveral in Florida received more than 1.1 million recreation visits in 2011.

For other refuges, the total economic output is much lower. An example is Alligator River National Wildlife Refuge, which is located in a rural area along the North Carolina coast. The refuge received about 51,800 recreation visits in 2011, and as a result has a total economic output of $0.31 per $1 spent by the federal government. That does not factor in the incalculable societal values contributed by the refuge.

Alligator River is one of the last remaining strongholds for black bear on the Eastern Seaboard; it preserves and protects pocosins, a unique wetland habitat that stores thousands of years of carbon in decaying organic material; and habitat for wildlife, wading birds, shorebirds, raptors and many other wildlife species. The refuge is also on the front lines in battling sea level rise. Research conducted there on mitigation projects such as artificial oyster reefs to buffer the coast against storms can help us better understand how to protect coastal cities and communities in the future.

5. How are visitors calculated?

Refuges count recreation visits in various ways. These include car counts, foot counts, hunt registrations and parking-lot audits. Based on typical behavior patterns, refuge officials can estimate the amount of time visitors spend in each activity. Refuges submit their count data each year in the Refuge Annual Performance Plan. Because visitors may engage in more than one refuge activity per day, the number of recreation visits may exceed a refuge's total visitor count.