



**THE ECONOMIC  
VALUE OF  
ANGLING (BOTH  
SHORE AND BOAT  
ANGLERS  
COMBINED) AND  
NON-ANGLING  
RECREATIONAL  
BOATING  
ACTIVITIES (BOTH  
MOTORIZED AND  
NONMOTORIZED)  
ON MOSES LAKE,  
WA IN 2023**

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Marc Petersen, Region 2 Warmwater lead for WDFW  
Photo credit: Ronnie Sawyer

**This document summarizes estimates of economic expenditures for two recreational activities on Moses Lake Washington during the year 2023. The two categories of activities are 1. Angling (shore and by boat) and 2. Non-Angling Recreational Boating Activities (motorized and nonmotorized).**

In 2023 the Washington Department of Fish and Wildlife (WDFW) performed a creel survey on Moses Lake, Washington to estimate angler effort, catch, target species, and average trip length. Catch reported over the average trip length is known as the “Catch per Unit of Effort” and was the primary purpose of the WDFW survey. During this process, WDFW collected the average number of hours people spent per day on angling activities from shore and by boat. Additionally, WDFW collected the average number of hours people spent per day on non-angling recreational boating both motorized and nonmotorized. The WDFW shared this data with the Columbia Basin Conservation District.

1. Angling activities (both from shore and by boat) were estimated at 20,189 day trips, with day trip defined as “One person spending part of a day fishing”.

2. Non-angling recreational boating activities (both motorized and nonmotorized) were estimated at 21,063 day trips, with a day trip defined as “One person spending part of a day boating”.

The daily economic expenditures for these two categories of day trips were assumed to be different enough that they needed to be evaluated separately using the following methods and data.

### **Category 1. Angling Activities**

The expenditures for a day trip were estimated using the “*Fishing, Hunting, and Wildlife-Associated Recreation in Washington 2022*” report by Braeden Van Deynze, PhD. The report states that in Washington State, anglers spend an average of \$65.70 per day (2022 dollars). Dollar values were adjusted to 2023 Consumer Price Index values citing “The Bureau of Labor and Statistics Inflation Calculator” at \$69.91 per day. This number includes food, lodging, (including campgrounds), transportation costs, (including fuel), moorage or boat launch fees, guide or charter packages, and land access. The number of angling day trips, 20,189, multiplied by \$69.91 per day trip expenditures equals an estimated \$1,411,412.99 per year contributed to the economy by this category.

## Category 2. Non-Angling Recreational Boating Activities

The economic value of a day trip was estimated using the report *Economic Analysis of Outdoor Recreation in Washington State: 2020 Update* by Mojica, J., and Fletcher, A. The report states that the expenditures for motorized recreational boating are \$94.00 per day, while the expenditures for nonmotorized recreational boating are \$83.00 per day. The WDFW did not separate motorized versus nonmotorized non-angling boating activities during their assessments, so the expenditure estimates were averaged at \$88.50 per day in 2019 dollars. The Bureau of Labor Statistics Inflation Calculator was used to update the dollar amount to \$105.19 in 2023 dollars. The number of non-angling recreational boating activities day trips, 21,063, was multiplied by \$105.19 per day trip expenditures, resulting in an estimated \$2,215,616.97 per year contributed to the economy by this category.

The total estimated value of angling (both shore and boat anglers combined) and non-angling recreational boating activities (both motorized and nonmotorized) is summarized below:

Category 1. Angling Activities \$1,411,412.99

Category 2. Non-Angling Recreational Boating Activities \$2,215,616.97

Total Estimated Economic Value \$3,627,029.96 \*

\*This valuation relies on estimates of per-day expenditures that were done regionally and not specific to the Moses Lake area. Therefore it should be viewed as an upper-bounds estimate to be used as a starting point for more targeted surveys in the future.

## SOURCES CITED OR REFERENCED

Fishing, Hunting, and Wildlife-Associated Recreation in Washington: Participation and Expenditures in 2022. (2022). FHWAR Report. Retrieved from [FHWAR-Report\\_web.pdf](#)

National Recreational Boating Survey: Exposure Survey Final Report. (2020). U.S. Coast Guard Boating Safety Division. Retrieved from <https://uscgboating.org/library/recreational-boating-survey/NRBSS-Exposure-Survey-Final-Report-11302020.pdf>

Mojica, J., & Fletcher, A. (2020). Economic analysis of outdoor recreation in Washington state: 2020 update. Earth Economics, Tacoma, WA. Retrieved from [https://headwaterseconomics.org/wp-content/uploads/trails-library/Trail\\_Study\\_187-WA-Economic\\_Analysis\\_Outdoor\\_Recreation\\_2020\\_Update.pdf](https://headwaterseconomics.org/wp-content/uploads/trails-library/Trail_Study_187-WA-Economic_Analysis_Outdoor_Recreation_2020_Update.pdf)

Bureau of Labor Statistics inflation calculator. (n.d.). U.S. Bureau of Labor Statistics. Retrieved from <https://data.bls.gov/cgi-bin/cpicalc.pl?cost1=71.52&year1=201601&year2=202201>

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