

Methodology for Estimating the Socioeconomic Benefits Derived from EBTJV Brook Trout Conservation Projects

The Eastern Brook Trout Joint Venture sees value in estimating the socioeconomic benefits derived from brook trout conservation projects and so it has developed a methodology for making these estimations using data contained in the US Fish and Wildlife Service (FWS) report titled “An Assessment of Economic Contributions from Fisheries and Aquatic Resource Conservation (2010).” The full report can be accessed through use of the following link: <http://www.fws.gov/home/feature/2011/pdf/fisherieseconomicreport.pdf>

Data from Table 3 of the referenced FWS report was used to determine the appropriate dollar value multiplier to use for the per mile or per acre output from brook trout conservation projects that received funding from the FWS National Fish Habitat Action Plan (NFHAP) budget allocations (FY06-FY13).

Table 3. Aquatic Habitat Conservation Values Attributable to the Service Working with Partners

Habitat	Restored/Enhanced	Value Range (in millions)	Mid-Point Value (in millions)	Jobs
Wetland	14,197 acres	\$72.3-\$144.9	\$109	2,465
Upland	5,162 acres	\$.3-\$.3	\$1.8	41
In-stream	1,433 miles	\$738.2-\$817.6	\$778	17,657
Riparian	961 miles	\$495.2-\$548.6	\$522	11,847
Opened to fish passage	10,394 acres	\$88.9-\$97.4	\$93	2,115
Re-opened river habitat	890 miles	\$458-\$507.4	\$483	10,958
Total		\$1,852.7-\$2,119.3	\$1,986	45,083

Each of the value multipliers were calculated by dividing the habitat restored/enhanced metrics (acres or miles) into the corresponding mid-point values. As an example to determine the value multiplier for each acre of wetland habitat enhanced/restored, the mid-point value of \$109 million was divided by 14,197 acres, which results in a multiplier value of \$7,679 per acre of wetland habitat enhanced/restored. The list below presents the value multipliers that were calculated in the manner just described.

Socioeconomic value multipliers:

- \$7,678 per acre of wetland habitat enhanced/restored
- \$349 per acre of upland habitat enhanced/restored
- \$543,917 per mile of in-stream habitat enhanced/restored
- \$543,185 per mile of riparian habitat enhanced/restored
- \$8,947 per acre of stream opened to fish passage
- \$542,697 per mile of re-opened stream habitat

Since a number of brook trout conservation project outputs entailed acres of riparian habitat enhanced/restored and acres of lentic habitat enhanced/restored, the per acre of wetland habitat enhanced/restores value multiplier (\$7,678) was used as a surrogate for estimating the socioeconomic benefits derived from riparian habitat acreage conservation outputs and the per acre of stream opened to fish passage value multiplier (\$8,947) served as a surrogate for estimating the socioeconomic benefits resulting from lentic habitat conservation outputs.