

Chapter I7: Conclusions

As summarized in Chapter I3, EPA estimates that impingement at the Monroe facility is 35.8 million age 1 equivalents or 1.4 million pounds of lost fishery yield per year. Entrainment impact amounts to 11.6 million age 1 equivalents or 608,300 pounds of lost fishery yield each year.

The results of EPA's evaluation of the dollar value of I&E at Monroe (as calculated using benefits transfer, in Chapter I4) indicate that baseline economic losses range from \$492,400 to \$962,500 per year for impingement and from \$308,400 to \$2,253,400 per year for entrainment (all in \$2000).

EPA also developed an HRC analysis to examine the costs of restoring I&E losses at Monroe. The HRC results for impingement (\$5.5 million) and entrainment (\$13.6 million) were used for upper bounds, and the midpoints from the benefits transfer method were used for lower bounds. Combining these approaches, the value of I&E losses at Monroe range from approximately \$0.7 million to \$5.5 million per year for impingement and from \$1.3 million to \$13.6 million per year for entrainment (all in \$2000).

EPA also estimated the economic benefit of the proposed rule for the Monroe facility (Chapter I6). The resulting estimates of the economic value of benefits for the proposed rule range from \$582,000 to \$4.4 million per year for 80 percent impingement reductions, and from \$769,000 to \$8.2 million per year for 60 percent entrainment reductions (all in \$2000).

For a variety of reasons, EPA believes that the estimates developed here underestimate the total economic benefits of reducing I&E at the Monroe facility. EPA assumed that the effects of I&E on fish populations are constant over time (i.e., that fish kills do not have cumulatively greater impacts on diminished fish populations). EPA also did not analyze whether the number of fish affected by I&E would increase as populations increase in response to improved water quality or other improvements in environmental conditions. In the economic analyses, EPA also assumed that fishing is the only recreational activity affected.