

TABLE X-15B.—ANNUAL COMMERCIAL FISHING GROSS REVENUES LOST DUE TO ENTRAINMENT AT OCEAN FACILITIES IN THE NORTH ATLANTIC REGION—Continued

Species	Estimated pounds of harvest lost	Estimated value of harvest lost (in dollars)		
		Undiscounted	Discounted using 3% discount rate	Discounted using 7% discount rate
Atlantic herring	5,831	292	255	217
Atlantic mackerel	1,121	314	280	242
Atlantic menhaden	3,725	149	137	122
Atlantic silverside	3	2	2	2
Bluefish	7	2	2	1
Butterfish	80	38	35	32
Pollock	525	362	302	241
Rainbow smelt	9,987	1,997	1,810	1,599
Red hake	1,004	221	202	181
Searobin	85	174	155	133
Tautog	188	121	106	90
Windowpane	3,788	2,159	1,940	1,692
Winter flounder	46,355	63,970	53,829	43,393
Total	75,094	72,142	61,067	49,613

6. Total Recreational and Commercial Losses From Baseline Impingement and Entrainment in the North Atlantic Region

Table X-16 presents EPA's estimates of total baseline recreational and

commercial fishing losses from impingement and entrainment at cooling water intake structures in the North Atlantic region. Total commercial and recreational fishing losses are \$3.3 million per year for all species and

fishing modes, before discounting. Discounting these total baseline welfare losses by three and seven percent yield total losses of \$2.8 million and \$2.4 million, respectively.

TABLE X-16.—ESTIMATED DISCOUNTED COMMERCIAL AND RECREATIONAL BASELINE WELFARE LOSSES IN THE NORTH ATLANTIC REGION FROM IMPINGEMENT AND ENTRAINMENT (2002\$) ^a

Benefit type	Before discounting	Discounted using 3% discount rate	Discounted using 7% discount rate
Recreational	\$3,074,444	\$2,638,614	\$2,252,016
Commercial ^b	281,889	240,941	198,487
Total	3,356,333	2,879,555	2,450,503

^a Welfare losses represent losses due to both impingement and entrainment because recreational estimates cannot be presented separately for these categories.

^b Based on 40 percent of gross revenues, or upper bound of 0–40 percent range assumed to represent producer surplus.

7. Estimated Use Benefits of Proposed Regulatory Option in the North Atlantic Region

Table X-17 presents EPA's estimates of the gain from the post-compliance reduction in impingement and entrainment at cooling water intake structures in the North Atlantic region. The total reduction in commercial and recreational fishing is \$ 0.96 million per year for all species and fishing modes, before discounting. Discounting these total reduced welfare losses by three and seven percent yields total losses of \$0.83 million and \$0.70 million, respectively. These numbers may change for final if additional impingement and entrainment data become available.

TABLE X-17.—ESTIMATED DISCOUNTED COMMERCIAL AND RECREATIONAL REDUCED WELFARE LOSSES IN THE NORTH ATLANTIC REGION FROM IMPINGEMENT AND ENTRAINMENT (2002\$) ^a

Benefit type	Expected % reduction	Before discounting	Discounted using 3% discount rate	Discounted using 7% discount rate
Recreational	28.7%	\$881,426	\$758,811	\$646,991
Commercial ^b	29.2	82,222	70,256	57,860
Total	28.7	963,648	829,067	704,851

^a Welfare losses represent losses due to both impingement and entrainment because recreational estimates cannot be presented separately for these categories.

^b Based on 40 percent of gross revenues, or upper bound of 0–40 percent range assumed to represent producer surplus.