

TABLE VII-50.—IMPLICIT NON-USE VALUE—BREAK-EVEN POINTS FOR REGIONAL BENEFIT-COST ANALYSIS, USING A 7% DISCOUNT RATE

Study region	Use benefits ¹	Compliance costs ¹	Net costs ²	Number of households (millions) ³	Break-even nonuse WTP per household
North Atlantic	\$0.70	\$18.15	\$17.45		
Abutting Counties				3.65	\$4.78
Within 32.4 Miles				4.20	4.15
Statewide				5.14	3.39
Northern California	0.64	20.10	19.46		
Abutting Counties				2.38	8.18
Within 32.4 Miles				2.50	7.78
All N. CA Counties				4.99	3.90
Statewide				11.51	1.69

¹ Millions of 2002\$ per year, from 2/19/03 NODA: Tables X-53 and X-56

² Annualized compliance costs minus annual use benefits only (millions 2002\$)

³ Millions of households: (a) in abutting counties only (b) within 32 miles of impacted marine resources, (c) and (d) statewide (or, for northern half of CA). Sources: US Census 2000 (BLS): <http://factfinder.census.gov>;

⁴ Dollars per household per year that, when added to use benefits, would yield a total annual benefit (use plus nonuse) equal to the annualized costs.

As shown in Table X-50, nonuse values per household for the affected marine resources in the region would have to amount to at least \$4.78 per year to residents in the North Atlantic region—if assuming that only households in abutting counties have nonuse values for the affected marine resources—in order for the proposed option to have total benefits (annual use plus nonuse values) that would equal or exceed the estimated annual compliance costs for the proposed option. For households within 32.4 miles of the impacted resources, nonuse values would have to equal \$4.15 per year to have total benefits equal the costs of the proposed option. If nonuse values are considered for all households in the coastal states of the region (CT, ME, MA, NH, and RI), then the break-even nonuse value would need to be only \$3.39 per household.

For the Northern California region, the “break-even” nonuse willingness to pay (WTP) per household would need to be \$8.18, based solely on households in coast-abutting counties only. For households within 32.4 miles of the impacted resources, nonuse values would have to equal \$7.78 per year to have total benefits equal the costs of the proposed option. This level of break-even nonuse value would decline to \$3.90 if all households in the northern part of California are considered, and declines further to \$1.69 per household per year if the costs are spread over all households statewide.

While this approach of backing out the “breakeven” nonuse value per household does not directly answer the question of what nonuse values might actually be worth for the 316b rulemaking, these results do frame the question with a useful perspective that

appeals to common sense and facilitates policy-making decisions. The break-even approach poses the question: “are the implicit non-use WTP estimates per household at plausible levels, given empirical evidence available from the existing body of empirical research?”. EPA requests comment on whether these values are plausible as an average across all households in the target area, and data or research that addresses this question.

XI. Implementation and Other Regulatory Refinements

A. Definition and Methods for Determining the “Calculation Baseline”

EPA received a number of comments on the definition and methods associated with the calculation baseline during the comment period for the proposed Phase II rule. This calculation baseline sets a hypothetical baseline against which compliance with the proposed technology-based performance standards in § 125.94 is determined (see 67 FR 17176). The calculation provides facilities a consistent basis for determining compliance and allows them to take credit for fish protection technologies already in place at their facility. EPA proposed in § 125.93 (see 67 FR 17221) that the “*calculation baseline* was an estimate of impingement mortality and entrainment that would occur at your site assuming you had a shoreline cooling water intake structure with an intake capacity commensurate with a once-through cooling water system and with no impingement and/or entrainment reduction controls.” Some commenters stated that, in general, the proposed definition was too vague. They added that the regulated industry as well as the

permitting authority would be better served if there were more specific design criteria included in the definition. In response to these comments, EPA is considering and is requesting comments on adding the following specifications to the definition:

- Baseline cooling water intake structure is located at, and the screen face is parallel to, the shoreline. EPA is considering that it may be appropriate to allow credit in reducing impingement mortality from screen configurations that employ angling of the screen face and currents to guide organisms away from the structure before they are impinged.

- Baseline cooling water intake structure opening is located at or near the surface of the source waterbody. This may be appropriate to allow credit in reducing impingement mortality or entrainment due to placement of the opening in the water column.

- Baseline cooling water intake structure has a traveling screen with the standard 3/8 inch mesh size commonly used to keep condensers free from debris. This would allow a more consistent estimation of the organisms that are considered “entrainable” vs. “impingeable” by specifying a standard mesh size that can be related to the size of the organism that may potentially come in contact with the cooling water intake structure.

- Baseline practices and procedures are those that the facility would maintain in the absence of any operational controls implemented in whole or in part for the purpose of reducing impingement mortality and entrainment. This would recognize and provide credit for any operational measures, including flow or velocity