

MERCATUS CENTER
GEORGE MASON UNIVERSITY

REGULATORY STUDIES PROGRAM

Public Interest Comment on

The Environmental Protection Agency's
"Proposed National Pollutant Discharge Elimination System Regulations to
Establish Requirements for Cooling Water Intake Structures at Phase II
Existing Facilities"¹

The Regulatory Studies Program (RSP) of the Mercatus Center at George Mason University is dedicated to advancing knowledge of the impact of regulation on society. As part of its mission, RSP conducts careful and independent analyses employing contemporary economic scholarship to assess rulemaking proposals from the perspective of the public interest. Thus, this comment on the Environmental Protection Agency's "Proposed National Pollutant Discharge Elimination System Regulations to Establish Requirements for Cooling Water Intake Structures at Phase II Existing Facilities" does not represent the views of any particular affected party or special interest group, but is designed to evaluate the effect of the Agency's proposals on overall consumer welfare.

I. Introduction

In April 2002, EPA proposed a rule establishing national requirements applicable to the location, design, construction, and capacity of cooling water intake structures at existing power producing facilities that withdraw 50 million gallons per day (MGD) or more of water from rivers, streams, lakes, reservoirs, estuaries, oceans, or other waters of the U.S. for cooling purposes.

The proposed requirements, implemented through National Pollutant Discharge Elimination System (NPDES) permits, reflected the best technology available for minimizing adverse environmental impact from the cooling water intake structure based on water body type, and the amount of water withdrawn by a facility. More stringent requirements were proposed for more sensitive or biologically productive the waterbodies.

¹ Prepared by Daniel Simmons, Research Fellow, and Susan E. Dudley, Senior Research Fellow, Mercatus Center at George Mason University. This comment is one in a series of Public Interest Comments from Mercatus Center's Regulatory Studies Program and does not represent an official position of George Mason University.

Though EPA provided estimates of the benefits of the proposal (based on a decrease in expected mortality or injury to aquatic organisms that would otherwise be subject to entrainment into cooling water systems or impingement against screens or other devices at the entrance of cooling water intake structures) on March 19, 2003 it supplemented these data with a notice of data availability (NODA).²

The NODA suggests that in the North Atlantic Region alone the rule will provide annual benefits of \$80,000 a year for commercial fishermen, another \$880,000 a year for recreational fishermen, and between \$14 million and \$27 million a year in nonuse value benefits.³ In other words, the nonuse values attributed to the fish saved through the proposal are 175 to 335 times greater than the commercial value, and 17 to 32 times greater than the total use (commercial and recreational) value.⁴ The implications of these results are implausible.

This comment focuses on the NODA, the methodology EPA relied on for calculating benefits, and the resulting benefits EPA attributes to the proposed rule. Section II examines the calculations and methods EPA used to value nonuse benefits associated with regulation of cooling water intakes. Because the benefit estimates are dominated by nonuse values, Section III attempts to penetrate the reasons for the implausible results by examining the concept of nonuse values and the use of contingent valuation surveys to estimate them. Section IV concludes this comment and makes recommendations. Appendix I evaluates the proposal and NODA against the Regulatory Studies Program Checklist.

II. EPA's Estimation of Nonuse Values of Impinged and Entrained Fish

In the proposed rule published on April 9, 2002, EPA used a “50 percent rule” to estimate the nonuse value of fish impinged or entrained by cooling intakes (the 50 percent rule estimates the nonuse value as 50 percent of the use value). However, in response to comments, EPA presents new values for nonuse benefits in this NODA based on a “benefits transfer” approach.⁵ As noted above, benefits transfer is “the practice of transferring existing estimates of non-market values from the context of study to a new context.”⁶ In this case, the existing study EPA used is a contingent valuation (CV) survey conducted of the value of eelgrass and wetlands in the Peconic Estuary on the East End of Long Island.

² National Pollutant Discharge Elimination System—Proposed Regulations to Establish Requirements for Cooling Water Intake Structures at Phase II Existing Facilities; Notice of Data Availability, 68 Fed. Reg. at 13,522 (Mar. 19, 2003).

³ 68 Fed. Reg. at 13,578.

⁴ The valuation of recreational benefits appears to overestimate the benefits of recreational fishing. However, this analysis is only concerned with the nonuse benefits.

⁵ 68 Fed. Reg. at 13,544.

⁶ Office of Management and Budget, Draft 2003 Report to Congress on the Costs and Benefits of Federal Regulations, 68 Fed. Reg. 5,491, at 5,520 (Feb. 3, 2003).

This comment focuses on the nonuse value estimates provided in the NODA. The NODA also provides estimates of the benefits to commercial fishing and recreational fishing attributable to the proposed rule. While recreational fishing values are not as readily measured as commercial fishing values, which rely on direct market prices, they are more reliably estimated from indirect methods than nonuse values. We do not address EPA's estimates of recreational benefits here.

A. A Lack of Understanding of the Role of Prices

The first problem in the NODA does not recognize the role of prices. For example, in calculating the value of fish lost to impingement and entrainment, EPA uses a measure it describes as "total yield" and "production foregone." "Total yield" is an estimate of "direct losses of harvested species as well as the yield of harvested species that is lost due to losses of forage species."⁷ "Production foregone" is estimated by using "trophic structure and trophic transfer efficiency to estimate the harvested species that is lost because of the loss of forage species to impingement and entrainment."⁸ While it is not clear how EPA uses "total yield," and "production foregone" in the calculations, it is clear that assigning prices to these metrics is problematic.

Prices are not static values that reflect only the value of the good in question. Rather, they are dynamic values that change as people's perceptions change about the value of the inputs to the good, the scarcity of the good, and the value of substitutes to that good. By assigning a price to either "total yield" or "production foregone," EPA conflates the value of the good (the fish), with the value of the inputs to the good (the forage fish). While this alone would not invalidate the study, these types of problems are compounded throughout the analysis, resulting in a nonuse value for fish that has no basis in the real world.

B. Benefit Transfer Approach

Any benefits transfer approach rests on a number of assumptions and estimates, and EPA's study is no different. The first assumption is that the values from the Peconic Estuary survey of preservation/restoration of eelgrass and wetlands can be transferred to provide useful information about the valuation of fish.⁹ This assumption alone is questionable.

The Peconic study was a contingent choice survey conducted "to estimate the relative preferences of residents and second homeowners" on the East End of Long Island.¹⁰ The study asked respondents to choose between bundles of "goods" comprising "physical, environmental, aesthetic, and/or monetary dimensions."¹¹ One problem with transferring

⁷ 68 Fed. Reg. at 13,554.

⁸ 68 Fed. Reg. at 13,546.

⁹ 68 Fed. Reg. at 13,568.

¹⁰ Lynne Tudor, et. la, *Memo to the 316(b) Record, Estimating the Total and Nonuse Value of Fish, Based on Habitat Values for Coastal Wetlands* at 7 (Mar. 12, 2003).

¹¹ *Id.*

the results from this study is that the contingent choice survey estimated a value for habitat. In the NODA, EPA used the estimating of the values of habitat as a way of valuing how much people value fish. However, if there is a nonuse value for the fish impinged and entrained in cooling intakes, that value is for the fish themselves, not for the habitat the fish live in. EPA's study is a study of nonuse benefits about fish that get entrained and impinged. The relevant value is the nonuse value of the fish, not the habitat.

The EPA's approach estimates the amount of wetland that could hypothetically produce the habitat services necessary for the fish hypothetically impinged or entrained, and then uses information from people's hypothetical willingness to pay for the fish production services of that habitat. Each hypothetical estimate further detaches the final estimate from any mooring connected with actual values. Each estimate, assumption, and hypothetical weakens the explanatory power of the final valuation.

In the NODA, EPA "solicits comments on whether [this] benefits transfer approach provides a more comprehensive value that address all impingement and entrainment losses."¹² Due to the number of assumptions and hypotheticals involved in this approach, there is little reason to believe that the approach provides more or less of a comprehensive value of impingement and entrainment losses than the arbitrary 50 percent method. The real question is if the benefit transfer approach as applied here provides any information at all.

C. The Peconic Study

To develop willingness-to-pay (WTP) nonuse values, the NODA relies on "Measuring Public Values and Priorities for Natural Resources: An Application to the Peconic Estuary System," a dissertation paper by Marisa J. Mazzotta. This paper is not available online in the EPA's docket, and we were unable to find it online at all. Since we do not have a copy of the study¹³ we assume it is not peer reviewed.

Many questions are raised by the study. The first and most obvious is that the study was conducted in the area surrounding Peconic Estuary: Southold, Riverhead, Southampton, Easthampton, and Shelter Island.¹⁴ These areas are in Suffolk County, New York. Median household income in Suffolk County \$65,288, while the median household income in the rest of New York is \$43,393.¹⁵ Not only is the Peconic Estuary more wealthy, "the study found that the survey sample population was better educated and had higher incomes than the population of the area."¹⁶ This forced the study's author to adjust

¹² 68 Fed. Reg. at 13,568.

¹³ As of May 29, 2003, EPA has not responded to an email request for the paper.

¹⁴ Lynne Tudor, et. la, *Memo to the 316(b) Record, Estimating the Total and Nonuse Value of Fish, Based on Habitat Values for Coastal Wetlands* at 7 (Mar. 12, 2003).

¹⁵ U.S. Census Bureau, *Suffolk County, New York*, at <http://quickfacts.census.gov/qfd/states/36/36103.html> (last visited May 28, 2003).

¹⁶ *Memo to the 316(b) Record*, at 8.

the values “to be representative of the general population of the East End in terms of education and income.”¹⁷ It is not known how the study’s author would know and understand the relative preferences of the survey respondents compared to the general population. Also the study’s author had to estimate and adjust for people who lived in the area year-round, compared to seasonal residents.¹⁸ It is also not known how the study’s author could know and understand the relative preferences between year-round residents and seasonal residents to produce.

Another problem with the Peconic study is that, from the information we have, the survey did not ask how much respondents were willing to pay, but rather if each household on the East End of Long Island should pay either \$0 for habitat or \$50. There are several problems with this for EPA’s purposes. First, it is not a measure of stated WTP, but rather a response to a binary question regarding what others should pay. Second, respondents have no expectation that they will actually be asked to pay the \$50 as a result of their response. Third, though the EPA claims the Peconic study provides marginal cost information, individuals were not asked about the marginal cost of habitat, but rather whether they thought that each household should pay a certain amount for a certain amount of wetland.¹⁹ Inferences of people’s marginal preferences may be possible in economics text books, but it is far more difficult, and maybe impossible to derive a valid demand function from people’s responses to a survey of this design.

To use the information from the Peconic study, EPA adjusted the values estimated for wetlands because the wetlands values “reflect all ecological services provided by the wetlands, not just fish and shellfish habitat.”²⁰ To do this, EPA used another stated preference study to estimate the value people assign to the ecological services for fish and shellfish habitat provided by wetlands.²¹ Put in other way, EPA had to conduct benefits transfer within another benefits transfer to arrive at values for its study.

In the NODA, EPA requests comment on its methodology of assigning a share of WTP to “fish production services” for each habitat type.²² As noted above, there are so many estimates, including estimates within estimates within estimates, it is questionable that any useful value could be derived from this analysis. The real question is, “Is there a connection between these hypothetical values and any values in the real world?” There is no reason to believe that there is a connection. In fact, as will be shown in the next section, because the values in EPA’s analysis are so detached from people’s actual preference, they provide no useful information.

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *See id.* at 9.

²⁰ *Id.* at 10.

²¹ *Id.*

²² 68 Fed. Reg. at 13,750.

D. EPA's Estimates are Implausible

After numerous estimates, assumptions, and extrapolations, EPA concludes that in the North Atlantic region, the annual nonuse value of fish lost from impingement and entrainment is between \$76 million and \$140 million a year.²³ This is in stark contrast to commercial fishing's estimated losses of a mere \$282,339 per year.²⁴ In other words the annual value lost nonuse benefits from impingement and entrainment in the North Atlantic is 270 to 500 times greater than the lost benefits to commercial users.²⁵ To evaluate the validity of these estimates, these numbers need some context.

One way to compare the validity of these estimates is to evaluate them on a per pound basis. According to table X-6, X-7, X-8, and X-9, the total yield per year in the North Atlantic region lost to impingement and entrainment is 1.24 million pounds of fish. This translates to a nonuse value of between \$61 and \$113 per pound. In comparison, the estimated commercial losses are only \$1.12 per pound. This means that EPA estimates the nonuse value of fish to be 54 to 100 times greater than their commercial value. The implication of this is that fish are worth 54 to 100 times more to people if they are left in the water than if a commercial fisherman catches them for human consumption.

This gigantic discrepancy between the estimated nonuse value of the fish and the commercial (or consumption) value begs the question, "why do we still have commercial fishing?" If Americans really value knowing that fish are swimming free so much more than they value eating fish, why do we pay commercial fishermen to catch them for our consumption? If the values EPA produced are truly people's "willingness to pay" for the nonuse value they place on the fish, then why don't people organize, raise money, and buy out the fishermen? Obviously there are some organizing costs to such an endeavor, but the possible societal benefits are enormous. In fact, the societal benefits are so enormous that EPA's estimate of nonuse value could be overstated by an entire order of magnitude, and nonuse values would still dwarf use values. If nonuse values were anywhere near the estimate the EPA provides, we have to assume that environmental groups would organize to collect money and buy out commercial fishing.

To further put the EPA's estimate in perspective, according to the National Marine Fisheries service, in 2001, commercial fishermen landed 9.5 billion pounds of fish. The value of these fish is \$3.3 billion. Applying the same benefits transfer approach EPA used here to all fish taken by commercial fisherman, the nonuse value of the 9.5 billion pounds of fish landed may be worth between \$580 billion and \$1 trillion. Therefore, according to the EPA's logic and estimates, commercial fishing costs the nation between \$500 billion and \$1 trillion a year – almost 5 to 10 percent of GDP!

²³ 68 Fed. Reg. at 13,577. EPA estimates that a portion of these losses would be avoided with the proposed rule, resulting in benefits of between \$14 million and \$27 million per year.

²⁴ 68 Fed. Reg. at 13,558.

²⁵ See 68 Fed. Reg. at 13,577, table X-44.

III. Nonuse Values, Contingent Valuation, and Benefits Transfer

This section attempts to address how EPA could derive such implausible results from its analysis. It examines the nature of nonuse values, and the use of contingent valuation methods to measure them. It also briefly addresses the appropriate use of benefit transfer methods.

A. The nature of nonuse values

“Nonuse” values are alleged to derive from the mere existence of something; in this case, common species of fish. Some economists view nonuse values as a form of externality that must be addressed by government action, while others question their existence.²⁶ There are several conceptual problems inherent in nonuse values.²⁷ First, it can be difficult to distinguish true nonuse values from values that do involve the use or potential use of a resource, particularly unique resources, such as the Grand Canyon or Alaskan wilderness, which are often used to illustrate the concept of nonuse values. Though you may not currently visit the Grand Canyon, you may place a value on its continued existence in pristine condition so that your children or grandchildren can enjoy it (“bequest value”), so you could visit it if you chose to (“option value”) or so you can see photographs and nature videos of it (“indirect use value”).²⁸ These are all values that derive from potential or indirect use, and are not true nonuse values.

Weikard,²⁹ for example, distinguishes real nonuse values from these other values based on potential use and altruism, and attempts a theoretical proof to show that individuals would not be willing to sacrifice use values to receive nonuse values. He argues that the concept of nonuse or existence value is inconsistent with generally accepted economic principles.

Boudreaux, Meiners & Zywicki raise related concerns, though they do not deny the existence of nonuse values.

“Although everyone experiences subjective utility gains and losses that do not correspond to market money values, the fact that subjective utility exists in humans does not justify government policy geared to that dimension. Of course, government policy and the law, if they are to serve

²⁶ University of Southern California’s “National Ocean Economics Project” provides information and links to research on non-market values of environmental amenities. <http://ahf331b.usc.edu/nonmarket.html>. Last accessed 4/4/03.

²⁷ Hans-Peter Weikard, “The Existence Value Does Not Exist and Nonuse Values are Useless.” Paper prepared for the annual meeting of the European Public Choice Society, 2002. <http://polis.unipmn.it/epcs/papers/weikard.pdf>. Last accessed 4/4/03.

²⁸ This classification of option and bequest values as use values is consistent with other authors, including the U.K. Department for Transport, Local Government and the Regions *Economic Valuation with Stated Preference Techniques: Summary Guide*. <http://www.dtlr.gov.uk/about/economics/05.htm>. Last accessed 4/4/03.

²⁹ Weikard, *op cit*.

useful social functions, must be geared to measures of human welfare. But because subjective utility is unmeasurable, government cannot be charged with the task of maximizing utility.” (p. 793)

This recognition that nonuse values reflect subjective utility gains and are therefore not measurable or comparable across individuals is important. Though generally discussed in the context of environmental amenities, nonuse values exist for innumerable things. Some individuals may gain nonuse values from the knowledge that the Alaskan wilderness is untouched by oil drilling, while others may gain nonuse values from the knowledge that oil wells exist to provide jobs for Alaskan workers and national security. Some individuals may assign nonuse values to knowing people attend church regularly, while others may gain nonuse values from knowing others engage in hedonistic behavior. The question then becomes, if nonuse values are to be included in government decisions, on whose values should government reallocation of resources be based?

B. Contingent Valuation

Since there is no market in incremental changes in subjective individual utility, proponents of including nonuse values in government decision calculus turn to stated preference or “contingent valuation” (CV) surveys. Recent draft guidelines for regulatory analysis prepared by the Office of Management and Budget raise concerns about CV surveys, noting “the reliance of these methods on stated preferences regarding hypothetical scenarios and the complexities of the goods being valued by this technique raise issues about its accuracy in estimating willingness to pay compared to methods based on (indirect) revealed preferences.”³⁰

Despite concerns about its accuracy, the draft guidelines conclude that CV may be the only method available to estimate “nonuse” values, and do not dismiss CV as a tool. Instead, they state that “value estimates derived from contingent-valuation studies require greater analytical care than studies based on observable behavior,” and proceed to enumerate “best practices” for conducting CV. The best practices for conducting CV surveys address sampling, survey instrument design, transparency and replicability of results.

However, Boudreaux *et al* show that the practical problems of CV cannot be resolved with better surveys because the technique itself is conceptually flawed.

The questionable results [recognized by OMB and others] are merely the manifestation of greater underlying and incurable problems that render contingent valuation studies generally—and attempts to discern existence value particularly—useless and unreliable. The problem confronting designers of contingent valuation studies is at the conceptual and theoretical level, not at the merely practical level of implementation.

³⁰ Office of Management and Budget, Draft 2003 Report to Congress on the Costs and Benefits of Federal Regulations, 68 Fed. Reg. at 5,491 (Feb. 3, 2003).

Contingent valuation studies are inconsistent with the fundamental principles of economic choice under conditions of scarcity and budget constraints and rest on a superficial understanding of the role played by dollar prices in a dynamic economy. (p. 776)

Values emerge, not as conscious, intentional decisions, but as the unintended and undesigned results of decentralized market activity. People do not have a single value for an environmental amenity, but rather schedules of different dollar figures dependent upon a nearly infinite variety of variables. As a result, Boudreaux *et al* conclude that stated market values are not acceptable surrogates for market prices.

Kahneman, Ritov, and Schkade have also examined CV methods and results to understand what stated preferences actually express.³¹ They find that willingness to pay estimates derived from CV studies, though denominated in dollars, “are better viewed as expressions of attitudes than as indications of economic preferences,” and that “the anomalies of CV are inevitable manifestations of known characteristics of attitudes and attitude expressions.” (p. 204) They find that stated preferences derived from CV studies are analogous to juries’ punitive damage awards, and are not consistent with economists’ rational models.

Both jury awards and CV results seem to reveal a prescriptive notion of what should be, divorced from actual behavior or revealed preferences. But how much weight should these prescriptive notions carry in designing government policy?

Boudreaux *et. al.* point out,

In market transactions, we can assume that all individual trades increase individual utility, because the occurrence of the trade itself suggests that the individual values the good received more highly than the good surrendered. Thus, it is only through the process of actual exchange of one good for another that we can know for sure that an individual values one option over another... Divorced from the discipline of making actual choices, the hypothetical choices presented by contingent valuation have little value. (p. 785)

Kahneman *et al* and Boudreaux *et al*, through very different paths, reach the conclusion that stated preferences divorced from any expectation of actually having to pay the stated values, are not accurate proxies for revealed economic preferences. The similarities Kahneman *et al* find between jurors and CV respondents suggests that, like jurors determining civil damage awards, CV respondents view the values they assign as imposing costs on someone other than themselves. They know they will never have to pay the values they profess to place on different amenities. Thus, these responses do not comply with the key concept of opportunity cost articulated in the guidelines – they do

³¹ Daniel Kahneman, Ilana Ritov, and David Schkade, “Economic Preferences or Attitude Expressions?: An Analysis of Dollar Responses to Public Issues,” in *Journal of Risk and Uncertainty*, 19:1-3; 203-235 (1999).

not “measure what individuals are willing to forgo to enjoy a particular benefit.” Indeed, it strikes us as unrealistic to think that individuals would give up more than a small amount of income or other use value in exchange for a nonuse value. Indeed, as discussed above, the implications of the NODA—that nonuse values of the common fish saved from harm by the proposal dwarf the commercial or recreational value of the fish—is completely implausible. It is equally unrealistic to assume that it is in society’s interests to pursue government policies that would divert society’s scarce resources based on these subjective, stated preferences.

C. Benefits transfer

In its draft guidelines, OMB recognizes that it is not always possible to conduct an original study to estimate non-market benefits attributable to regulatory activity. It notes that although “benefit transfer,” a method that applies existing estimates to a new context, “offers a quick, low cost approach for establishing values for goods and attributes of goods, you should consider it as a last resort option. Several studies have documented difficulties in applying benefit transfer methods.”³² The draft guidelines go on to list the conditions under which benefit transfer is appropriate and when it is not.

We have endorsed the draft guidelines on this point.³³ However, as discussed above, EPA’s use of the benefit transfer method in this case, relying on a survey of willingness to pay for wetlands habitat to measure the value of fish in open waters, appears to defy most if not all of the conditions set forth in the draft guidelines.

IV. Conclusions and Recommendations

EPA’s efforts to place values on the nonuse benefits attributable to reducing fish losses due to entrainment and impingement at power facility cooling water intakes illustrates the problems with attempting to capture subjective utility measures in policy decisions. EPA estimates that the commercial value (or value to American consumers) of the proposed regulations is \$80,000 per year. It estimates the recreational fishing value at another \$880,000 per year. In contrast, it values the nonuse benefits of the proposed regulations at between \$14,170,000 and 26,870,000. On a per-pound basis, the nonuse values of the common fish examined in the NODA are 54 to 100 times greater than actual use values. This is implausible.

EPA’s results suggest that every fish consumed actually costs Americans much more in nonuse values than it provides in consumption value. As noted above, the implication of this result is that Americans could experience benefits of between \$500 billion and \$1 trillion per year, simply by not eating fish. Preferences revealed by the fact that Americans do eat fish shows the impossibility of the benefit estimates presented in the NODA.

³² 68 Fed. Reg. at 5,520.

³³ See Mercatus Center Public Interest Comment on OMB’s Draft Guidelines for Regulatory Analysis, May 2003. Available at <http://www.mercatus.org/article.php/314.html>.

Relying on stated preferences regarding hypothetical scenarios is widely recognized to be less reliable than relying on methods based on revealed preferences. In this NODA, EPA compounds the problems inherent in stated preference surveys by attempting to transfer the results of a CV study designed to value wetland habitat to estimate the benefits of common fish species. EPA appears to have gotten caught up in the complicated exercise of adjusting, extrapolating, and transferring, and not stopped to conduct a reality check on the plausibility of the results.

EPA should reconsider its approach to estimating benefits for this rule. The values attributable to commercial fishing (and corresponding consumption) are observable through market transactions and should be included. The values associated with recreational fishing are less easy to estimate, because they involve assumptions about the relationship between number of fish and recreational enjoyment, however, with care they should also be included. The nonuse values of the fish, however, involve subjective utility changes and are not measurable or comparable across individuals. While individuals may experience subjective utility gains from knowing that fish are not entrained or impinged, this does not justify regulation that imposes real opportunity costs. If forced to actually pay for the costs of regulation, it is simply implausible that people would be willing to give up a significant amount of private economic goods in exchange for pure nonuse value of fish.³⁴

³⁴ Boudreaux *et al* defer to Adam Smith, who illustrated the concept two centuries ago with a hypothetical earthquake in China that killed millions. While a European would express sincere regrets about the plight of the dead, his concern would pale in comparison to a comparatively trivial misfortune of his own. Adam Smith, *The Theory of Moral Sentiments*, referenced in Boudreaux *et al.* (p. 774).

**APPENDIX I
RSP CHECKLIST**

Element	Agency Approach	RSP Comments
1. Has the agency identified a significant market failure?	N/A	EPA does not address the issue of market failure in this NODA.
2. Has the agency identified an appropriate federal role?	N/A	
3. Has the agency examined alternative approaches?	N/A	This NODA examines benefits from an alternative already proposed by EPA.
4. Does the agency attempt to maximize net benefits?	This NODA attempts to justify costs of \$18 million by estimating large values for nonuse benefits. Grade: F	Net benefits are not maximized when the analysis that estimates the benefits is fundamentally flawed. The proposed rule arguably will produce \$80,000 a year in benefits to commercial fishermen. In the North Atlantic Region, the value of commercial fish is the only value estimated that has any tie to an actually measurable market value. Yet the rule will cost \$18 million.

Element	Agency Approach	RSP Comments
5. Does the proposal have a strong scientific or technical basis?	<p>EPA relies on what appears to be a non-peer reviewed study that was designed to measure something very different from the values it attempts to quantify.</p> <p>Grade: F</p>	<p>EPA's estimate that the annual nonuse value of the fish lost to impingement and entrainment in the North Atlantic Region alone is \$76 to \$140 million is derived through too many estimates, assumptions, and extrapolations to have any basis to values in the real world.</p>
6. Are distributional effects clearly understood?	<p>N/A</p>	
7. Are individual choices and property impacts understood?	<p>The NODA concludes that nonuse value of fish exceed the consumption value by 54 to 100 times.</p> <p>Grade: F</p>	<p>EPA's results reveal that it has not considered the role of individual choice. If the true benefits lost to impingement and entrainment were even close to the amount the NODA suggests, we would expect private conservation organizations to organize and remediate the problem. That fact that they do not suggests that EPA's analysis completely misapprehends individual choice. The analysis also appears flawed because EPA does not understand the role of prices in an economy.</p>