

Entergy v. Riverkeeper and the Difficulty of Assigning a Monetary Value to the Environment

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I. Introduction

It may be fairly easy to assign a value to some of the resources in our environment. For instance, a farmer may know he will be able to sell his crop of green peppers for two dollars a pound at the local outdoor market. Similarly, we can say his farm is worth what a prospective buyer may be willing to pay for his land, seeds, and company name. In the field of environmental law, however, it is rarely this easy to assign a value to a resource that has been or will be damaged or depleted. This is because our society may value a resource for more than what one may be able to sell it for. Instead, one may ask, how much money would I be satisfied with on the condition that I can no longer go hiking in the state forest? How much would I pay to be assured the survival of the polar bears, so that my children may appreciate them? How much should our government invest in preserving the rain forest, when it may contain plant species that will cure cancer? These are difficult, perhaps impossible questions to answer, because sometimes the value of a resource is not adequately reflected by what it may be worth economically. Instead, it may have inherent or sentimental value. It may, in fact, be priceless.

Nonetheless, we must find some way to put some price on these items. Our communities and governments do not have an endless amount of wealth to protect these resources, and often financing preservation or clean-up efforts will necessitate cutting other important programs. Agencies, courts, and scholars have come up with many ways to place values on the environment and its resources. However, these schemes

often undervalue natural resources, and we consequentially lose our most beloved green spaces. It is critical to implement valuations on natural resources that are not only practical, but also do not run the risk of underestimating the value of natural resources.

II. The facts of *Entergy v. Riverkeeper* and the EPA's Cost-Benefit Scheme

Very recently, the Supreme Court struggled with this issue in regards to sea life in many lakes and oceans across the United States. *Entergy v. Riverkeeper* involved a challenge of a decision by the Environmental Protection Agency (hereinafter "EPA" or "Agency") to engage in a cost-benefit analysis in order to determine whether power plants should be required to update their cooling systems.ⁱ Unfortunately, the current cooling structures were killing 3.4 billion fish and shellfish each year combined. During the cooling process, water is sucked into the system and fish are inadvertently sucked in along with the water. The fish that get caught in the machinery are either vacuumed into the cooling systems or forced against metal screens.ⁱⁱ

Updating the systems with the newest technology would reduce the number of fish killed by the power plants significantly, but would be nine times more expensive. In its analysis, the EPA compared the number of fish that would be killed using the best technology on the market with the amount of fish and shellfish that would die under a less expensive alternative plan. Ultimately, the Agency decided that although the less expensive requirements would kill between three and eighteen percent more fish, the extra 3.5 billion dollar difference in costs were too great to require all the changes for existing power plants. Therefore, under the new regulations, new power facilities would be required to use the best technology available: either closed-cycle cooling structures that suck less water in from natural environments or the equivalent. Existing power

plants, however, would be required to take other steps to reduce fish deaths but would not be required to construct the closed-cycle cooling systems.ⁱⁱⁱ

In order to justify these regulations, the EPA utilized a cost-benefit analysis. In looking at cost, they considered the amount of money plants would need to spend to install closed-cycle cooling systems, the reduction in efficiency of those systems, and administrative costs for both governments and plants, among other things. When deciding how to value the lost wildlife, the EPA initially considered placing a value of 735 million dollars on the lost fish each year. However, the final regulations only valued the dead fish at 83 million dollars annually. Interestingly, the Agency decided to only attribute a value to the fish that would be commercially or recreationally harvested had they survived the cooling systems. So essentially, any fish that would not be eaten by humans was not given any value whatsoever. When the 83 million dollar fish were compared to the 3.5 billion dollar changes that stricter regulations would cost, the answer was clear. The fish were not worth it.^{iv}

III. The Supreme Court's Analysis

In deciding how power plants should react to the dead fish problem, the EPA was required to promulgate regulations consistent with the Clean Water Act (hereinafter "Act"). In determining whether the EPA followed statutory authority as it should have legally, the Supreme Court looked to the language of the Act, which provides: "[a]ny standard... shall require that... cooling water intake structures should reflect the best technology available for minimizing adverse environmental impact."^v

A five-justice majority along with one concurring justice concluded that a cost-benefit analysis was permissible under the Act. Writing for the majority, Justice Scalia

concluded that because Congress' intent was ambiguous, the EPA merely needed to use a reasonable interpretation of the statute in promulgating regulations, and cited *Chevron* as its authority.^{vi} The majority looked to the language in other sections of the Act, including "drastically minimize" and "eliminate," to determine that the term "minimize" did not require the best existing technology. It did not indicate whether elimination or drastic reduction was possible in regards to the environmental impacts of the cooling systems. Justice Scalia also concluded that the language "best technology" did not necessarily mean the most environmentally friendly, noting that these words could also be seen as requiring the most efficient.^{vii} Additionally, the majority saw the absence of explicit language concerning cost-benefit analysis as acquiescence. Otherwise, it argued, the provision would need to be read as allowing no cost consideration whatsoever and would thus be completely impractical. Examination of the Act's history further illuminated the fact that the current language was intended by Congress to allow cost-benefit analysis, in the eyes of the majority. For instance, all former statutory sections in this area allowed for cost considerations of one type or another, and the majority concluded that therefore it was likely that Congress intended to maintain cost consideration.^{viii} Justice Scalia also noted that *American Trucking* held that agencies could not consider cost in writing regulations under a particular provision of the Clean Air Act because it did not mention cost considerations, while other provisions of that Act did. However, the majority concluded that ambiguous provisions should not always be interpreted to limit agency discretion, and that such a reading was not required here.^{ix}

Justice Breyer authored an opinion in which he agreed with the majority that Congress had allowed the use of cost-benefit analysis in the Clean Water Act, but

stressed that Congress did not view cost-benefit analysis as the ideal tool for promulgating regulations. The concurrence noted that the Act is nuanced and allows for flexibility, concluding that the EPA is required to consider the best existing technology but is not required to ultimately mandate the use of that technology.^x

Justice Stevens dissented, joined by Justices Souter and Ginsberg. The dissent disagreed with the majority's application of *Chevron*, insisting that a reasonable interpretation is only warranted when Congress' intent is vague, whereas here the intent was not ambiguous. Because Congress' intent concerning the Act was clear, the dissent would have required the EPA to follow the intent of Congress wholly, and would not have allowed the EPA to use merely a reasonable interpretation. In illustrating the clarity of Congress' intent, the dissent highlighted the fact that allowance of cost-benefit analysis is usually specified explicitly in statutory law. In this case, cost-benefit analysis was explicitly allowed elsewhere in the statute, but was not mentioned in the provision in question, which the dissent took to mean that cost-benefit analysis should not be used in assessing the best technology available to minimize the power plants' effect on the environment.^{xi} Justice Stevens was also dismayed that the majority did not follow *American Trucking*, viewing that case on point. *American Trucking* at the least certainly does seem to implicate similar policy issues and effects on the public. The dissent, like the majority, also focused on the history of the Act. However, it pointed to areas of the Act that had allowed for cost-benefit analysis only in temporary or exceptional situations, which further proves Congress' hesitation in allowing that tool.^{xii}

The dissent not only criticized the majority's allowance of cost-benefit analysis, but also protested that even if this analysis was permissible, the EPA did not adequately determine the value of the affected wildlife. Justice Stevens began by noting that using

cost benefit analysis has invoked a substantial amount of controversy, and stated that more often than not, this type of analysis is biased against environment resources because they are difficult to quantify.^{xiii} The dissent points out that other statutes have been interpreted by the Court to mean that cost-benefit analysis should not be implemented in circumstances where values are difficult to measure. In fact, the EPA, when drafting the final regulations at issue, stressed that the wildlife value was underestimated in its analysis, because it did not assign any dollar amount to non-use benefits, and additionally did not consider all possible use benefits.^{xiv} Because the Agency only attributed a value to the fish that would be commercially or recreationally caught and eaten, it is possible that the majority should have looked more carefully at whether the cost-benefit analysis, as implemented, was correct under the Clean Water Act.

IV. Ways to Attribute Values to Environmental Resources

The Court ultimately decided that cost-benefit analysis was appropriate under the Clean Water Act to decide whether power plants should be required to use closed-cycle cooling systems. However, this case highlights the negative implications of using this type of analysis, especially when the analysis is limited to consider only certain types of uses of the environment resources at risk. It is relatively clear from the statutory interpretations of both the majority and dissent that Congress does limit the application of cost-benefit analysis of certain areas of the law. It is also evident that many scholars advocate for a more comprehensive assessment of resource value than what the EPA deemed practical in this case. Although the Agency is surely faced with budgetary and temporal restrictions in assessing the values of natural resources, the underestimation

here had a drastic effect on the outcome of the evaluation, directly leading to the decision to implement the less stringent regulations. Additionally, in its opinion, the majority appeared not to have assessed the EPA's application of the value measurement. Requiring the EPA to place non-use values on wildlife and other environmental resources would help to correct the systematic undervaluation of these important commodities.

A trichotomy approach to labeling different types of values has been fairly well established among scholars. This approach categorizes types of value as use value, existence value, and intrinsic value.^{xv} Use value, just as its name suggests, assesses the value of the resource as humans can use it. Existence value evaluates what potential value for humans the resource holds, and considers the value of preservation for future human use. Intrinsic value determines the inherent value of a resource, unrelated to human need or desire.^{xvi} There are multitudes of ways to determine resource value that take into consideration these three types of value in various ways. Briefly exploring a few of these proposals will illustrate the various schemes available to agencies like the EPA, many of which take efficiency into consideration. Any of these methods allows the evaluator to take cost into consideration in various degrees. But each of them furthermore allows different values to be considered when assigning a monetary value to the resource, which can then be compared to potential costs of preservation or clean up if desired.

One such way to assess environmental value is through base damage assessment. This proposed system aims to remedy the inaccuracy in other types of value measurement and seeks to reduce the cost of evaluation. Base damage assessment is achieved by creating fixed schedules of loss values rather than proceeding with case-by-

case evaluations every time a natural resource needs to be quantified.^{xvii} Because individual assessments would not be needed, the cost of such a system would likely be affordable. Also, governments could use the schedules to easily determine which resources most need protection, and individual actors would be better deterred from damaging resources because they would be able to determine the implication of their future actions. Insurance companies similarly could charge less to insure companies if clean up costs were more predictable. A system such as this one could potentially compare the public's opinion of what the resource was worth by comparing it with the table if desired.^{xviii}

This system does have potential drawbacks. For instance, it is unlikely to be able to assess intrinsic or potential use adequately, since these may vary greatly from resource to resource. However, such a schedule may allow an agency to spend less time assessing use values so that it may expend additional resources on determining other types of use. The system may also allow for inherent evaluation by assigning a value to an animal or specie within an environment, regardless of use by humans.

The NOAA has implemented a second approach in determining the dollar amount it seeks to recover from companies that have damaged natural resources, which it promulgated consistent to federal statutory law. When dealing with oil spills, this agency has used two procedures when dealing with smaller spills that do not require surveying the public or studying the site of the spill. The NOAA uses tables similar to the previous approach. The tables, however, take into account an oil spill's effects on ecological systems. With the second approach, the agency estimates the distribution of the spill, the mortality rate, the productivity loss, and the cost of restoration if restoration is reasonable. The public's use is also considered.^{xix} Although this approach

may be more complex than the previous one, it must be relatively efficient and practical, considering it has been successfully used by an administrative agency, albeit one that has a major focus on environmental restoration.

Contingent value is a third approach to attaching value to resources. This is the practice of surveying members of the public and asking what individuals would pay to ensure the conservation and availability of a certain natural resource.^{xx} This approach has several advantages, one of which is that it allows the public to consider all types of values instead of merely use value. It also allows evaluators to consider the opinions of a diverse group. However, it has also been criticized as unreliable due to the hypothetical nature of the questions it poses to citizens, and is subject to contamination like any other survey.^{xxi} It also may take time to effectuate. Nevertheless, it may be the best option in certain circumstances, especially when valuating our most prized natural resources.

V. Conclusion

Although the alternatives listed above all have their potential drawbacks, they all represent approaches to valuing resources that are less likely to be biased against environmental preservation and restoration than the method that the EPA used in determining the value of fish killed by the power plants. Hopefully, agencies will explore and utilize these tests in the future, so that we can continue to effectively protect, admire, and utilize natural resources.

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- ⁱ Entergy Corp. v. Riverkeeper, Inc., 556 U.S. ___ (2009) (slip op., nos. 07-588, 07-589, and 07-597), available at <http://supreme.justia.com/us/556/07-588/index.html>.
- ⁱⁱ *Id.* at 2-4.
- ⁱⁱⁱ *Id.* at 3-5.
- ^{iv} *Id.* at 3 (Stevens, J., dissenting); see also EPA, Economic and Benefits Analysis for the Proposed Section 316(b) Phase II Existing Facilities Rule, p. D1-4 (EPA-821-R-02-001, Feb. 2002) available at <http://www.epa.gov/waterscience/316b/phase2/econbenefits>; EPA, Economic and Benefits Analysis for the Final Section 316(b) Phase II Existing Facilities Rule, p. D1-5 (EPA-821-R-04-005, Feb. 2004) available at <http://www.epa.gov/waterscience/316b/phase2/econbenefits/final.htm>.
- ^v 556 U.S. ___ at 1-2; see also Clean Water Act, 33 U.S.C. § 1326(b)
- ^{vi} 556 U.S. ___ at 7; see also Chevron U. S. A. Inc. v. Natural Resources Defense Council, Inc., 467 U. S. 837, 843-44 (1984).
- ^{vii} 556 U.S. ___ at 8-9.
- ^{viii} *Id.* at 12.
- ^{ix} *Id.* at 12-13; see also Whitman v. American Trucking Assns., Inc., 531 U.S. 457 (2001).
- ^x *Id.* (Breyer, J., concurring in part).
- ^{xi} *Id.* at 4, 7 (Stevens, J., dissenting).
- ^{xii} 556 U.S. ___ at 3-5 (Stevens, J., dissenting).
- ^{xiii} *Id.* at 2 (Stevens, J., dissenting). Others have agreed with Justice Stevens, see, e.g., David M. Driesen, *Is Cost Benefit Analysis Neutral?*, 77 UNIV. COLO. L. REV. 335 (2006) (asserting that cost-benefit analysis benefits industry and is biased both theoretically and in practice).
- ^{xiv} 556 U.S. ___ at 2-3 (Stevens, J., dissenting), see also EPA, Economic and Benefits Analysis for the Final Section 316(b) Phase II Existing Facilities Rule, p. D1-5 (EPA-821-R-04-005, Feb. 2004) available at <http://www.epa.gov/waterscience/316b/phase2/econbenefits/final.htm>.
- ^{xv} Frank B. Cross, *Natural Resource Damage Valuation*, 42 VAND. L. REV. 269, 281 (1989). The Supreme Court of Canada has also used this trichotomy, although it has not concluded which types of values are ideal or workable. Martin z. P. Olszynski, *The Assessment of Environmental Damages Following the Supreme Court's Decision in Canfor* 15 J. Env'tl. L. & Practice 257 (2005).
- ^{xvi} 42 VAND. L. REV. 269, 281 (1989).
- ^{xvii} Murray B. Rutherford, Jack L. Knetch, and Thomas C. Brown, *Assessing Environmental Losses: Judgments of Importance and Damage Schedules*, 22 HARV. ENVTL. L. REV. 51, 52 (1998).
- ^{xviii} *Id.* at 52-62.
- ^{xix} Molly Holt and Grayson Reed Cecil, *Natural Resources for Oil Spills: The International Context*, 9 NATURAL RESOURCES & ENV'T. 28, 28 (Spring 1995).
- ^{xx} Sameer H. Doshi, *Making the Sale on Contingent Valuation*, 21 TUL. ENVTL. L. J. 195, 296- 299 (2008).
- ^{xxi} *Id.* at 300-302.