

# CHAPTER 11

## COST-BENEFIT COMPARISON AND UNFUNDED MANDATES REFORM ACT ANALYSIS

### 11.1 COST-BENEFIT COMPARISON

Table 11-1 summarizes the social costs and benefits of the proposed rule. The estimated pre-tax annualized compliance cost is \$1.51 million in 2000 dollars for the proposed rule (see Table 6-5). All of the CAAP facilities in the proposed scope currently permitted, so incremental administrative costs of the regulation are expected to be negligible. However, Federal and State permitting authorities will incur a burden for tasks such as reviewing and certifying the BMP plan and reports on the use of drugs and chemicals. EPA estimated these costs at approximately \$10,011 for the three-year period covered by the information collection request (EPA, 2002, Table 9) or roughly \$3,337 per year. That is, the recordkeeping and reporting burden to the permitting authorities is less than two-tenths of one percent of the pre-tax compliance cost for the proposed rule. The costs are shown using both a 7 percent discount rate and a 3 percent discount rate in Table 11-1.

The monetized benefits are based on the Carson and Mitchell (1993) contingent valuation estimates of an annual willingness to pay. Hence, the total willingness to pay derived from those values is an annual amount. The model facility approach did not provide any intuition about the timing of compliance or the dynamics of when benefits would accrue, so the benefit analysis is based on the environmental effects achieved when the proposed regulation is fully implemented. There is no variation through time. The annualized value of a level annual flow is equal to the annual flow itself, when the rate for discounting and annualization are the same. Thus, the annualized benefits are the same as the annual benefits no matter what discount rate is applied. The estimated quantified and monetized benefits of the rule range from \$0.022 million to \$0.113 million. These values are likely to be underestimates because EPA can fully characterize only a limited set of benefits to the point of monetization. Section 10.6 in this report describes several types of benefits—those that can be both quantified and monetized; those that can be quantified but not monetized; and those that cannot be quantified or monetized.

**Table 11-1**

**Estimated Pre-Tax Annualized Compliance Costs and Monetized Benefits**

Production System	Number of Regulated CAAPs	Pre-tax Annualized Cost (Millions, 2000 dollars)		Annualized Monetized Benefits* (Millions, 2000 dollars)	
		Discount Rate		Min	Max
		7%	3%		
Flow-through	181	\$1.31	\$1.20	\$0.019	\$0.091
Recirculating	21	\$0.11	\$0.11	\$0.003	\$0.022
Net Pen	20	\$0.09	\$0.08	---	---
Industry Total	222	\$1.51	\$1.39	\$0.022	\$0.113
State and Federal Permitting Authorities		\$0.003	\$0.003		
Estimated cost of the proposed rule		\$1.513	\$1.393	\$0.022	\$0.113

*\*Monetized benefits are not scaled to the national level.*

The monetized benefits are based on the 128 flow-through and recirculating systems from the screener data (i.e., are not scaled to the national level) because EPA was not able to estimate a representative national scaling factor. Hence, Table 11-1 compares annualized compliance costs associated with 222 facilities to annualized benefits from 128 facilities.

**11.2 UNFUNDED MANDATES REFORM ACT ANALYSIS**

**11.2.1 Background**

Title II of the Unfunded Mandates Reform Act of 1995 (Public Law 104-4; UMRA) establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and

tribal governments as well as on the private sector. Under Section 202(a)(1) of UMRA, EPA must generally prepare a written statement, including a cost-benefit analysis, for proposed and final regulations that “includes any Federal mandate that may result in the expenditure by State, local, and tribal governments, in the aggregate or by the private sector” in excess of \$100 million per year.<sup>1</sup> As a general matter, a federal mandate includes Federal Regulations that impose enforceable duties on State, local, and tribal governments, or on the private sector (Katzen, 1995). Significant regulatory actions require Office of Management and Budget review and the preparation of a Regulatory Impact Assessment that compares the costs and benefits of the action.

State and tribal government facilities are within the scope of the regulated community for the proposed aquatic animal production industry effluent limitations guidelines, see Chapter 2. EPA has determined that this rule would not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. The total annual cost of this rule is estimated to be \$1.5 million. Thus, the proposed rule is not subject to the requirements of Sections 202 and 205 of the UMRA. The facilities which are affected by the proposed rule are direct dischargers engaged in concentrated aquatic animal production. These facilities would be subject to the proposed requirements through the issuance or renewal of an NPDES permit either from the Federal EPA or authorized State governments. These facilities should already have NPDES permits as the Clean Water Act requires a permit be held by any point source discharger before that facility may discharge wastewater pollutants into surface waters. Therefore, the proposed rule could require these permits to be revised to comply with revised Federal standards, but should not require a new permit program be implemented.

EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. EPA is not proposing to establish pretreatment standards for this point source category which are applied to indirect dischargers and overseen by Control Authorities. Local governments are frequently the pretreatment Control Authority but since this regulation proposes no pretreatment standards, there would be no impact imposed on local governments. EPA proposed requirements are not expected to impact any tribal governments, either as producers or because facilities

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<sup>1</sup> The \$100 million in annual costs is the same threshold that identifies a “significant regulatory action” in Executive Order 12866.

are located on tribal lands. Thus, the proposed rule is not subject to the requirements of section 203 of UMRA.

EPA, however, is responsive to all required provisions of UMRA. In particular, the Economic Analysis (EA) addresses:

- Section 202(a)(1)—authorizing legislation (Section 1 and the preamble to the rule);
- Section 202(a)(2)—a qualitative and quantitative assessment of the anticipated costs and benefits of the regulation, including administration costs to state and local governments (Sections 6 and 9 as well as this Chapter);
- Section 202(a)(3)(A)—accurate estimates of future compliance costs (as reasonably feasible; Section 6);
- Section 202(a)(3)(B)—disproportionate effects on particular regions, local communities, or segments of the private sector. EPA identified no disproportionate impacts as a result of the proposed rule (Chapter 7);
- Section 202(a)(4)—effects on the national economy. Due to the small cost associated with the proposed rule (less than \$2 million), EPA anticipates no discernable effects on the national economy.
- Section 205(a)—least burdensome option or explanation required (this Chapter).

The preamble to the Rule summarizes the extent of EPA's consultation with stakeholders including industry, environmental groups, states, and local governments (UMRA, sections 202(a)(5) and 204).

### **11.2.2 Potential Impacts on Non-Commercial Facilities**

EPA identified 142 non-commercial flow-through facilities including Federal, State, Tribal, and Academic/Research facilities, see Table 7-1. As mentioned in Section 5.13, EPA imputed revenues for non-commercial facilities based on the market value of production. Under the proposed rule: seven facilities show an impact at a 3 percent revenue test threshold; one facility shows an impact at a 5 percent revenue test threshold; and no facilities show impacts under a 10 percent revenue test threshold.

### **11.2.3 Summary**

Pursuant to section 205(a)(1)-(2), EPA has selected the “least costly, most cost-effective or least burdensome alternative” consistent with the requirements of the Clean Water Act (CWA) for the reasons discussed in the preamble to the rule. EPA is required under the CWA (section 304, Best Available Technology Economically Achievable (BAT)) to set effluent limitations guidelines and standards based on BAT considering factors listed in the CWA such as age of equipment and facilities involved, and processes employed. EPA is also required under the CWA (section 306, New Source Performance Standards (NSPS)) to set effluent limitations guidelines and standards based on Best Available Demonstrated Technology. The preamble to the proposed rule and Chapter 8 review EPA’s steps to mitigate any adverse impacts of the rule. EPA determined that the rule constitutes the least burdensome alternative consistent with the CWA.

### **11.3 REFERENCE**

Carson, R. T. and R.C. Mitchell. 1993. The Value of Clean Water: The Public's Willingness to Pay for Boatable, Fishable, and Swimmable Quality Water. *Water Resources Research* 29(7 July):2445-2454.

EPA. 2002. Environmental Protection Agency. Information Collection Request: Concentrated Aquatic Animal Production Effluent Guidelines Proposed Rule. Draft June 27.

Katzen. 1995. Guidance for implementing Title II of S.I., Memorandum for the Heads of Executive Departments and Agencies from Sally Katzen, Ad, OIRA. March 31, 1995.