

# Chapter B5: UMRA Analysis

## INTRODUCTION

Title II of the Unfunded Mandates Reform Act of 1995, Pub. L. 104-4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on state, local, and Tribal governments and the private sector. Under section 202 of UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with “Federal mandates” that might result in expenditures to state, local, and Tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year.

Before promulgating a regulation for which a written statement is needed, section 205 of UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the proposed rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that might significantly or uniquely affect small governments, including Tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant intergovernmental mandates, and informing, educating, and advising small governments on compliance with regulatory requirements.

EPA estimates that facilities subject to the proposed Phase II rule would incur annualized post-tax compliance costs of \$182.4 million (\$2001). Of this total, \$153.0 million is incurred by private sector facilities, \$19.6 million is incurred by facilities owned by state and local governments, and \$9.8 million is incurred by facilities owned by the federal government.<sup>1</sup> Permitting authorities incur an additional \$3.6 million to administer the rule, including labor costs to write permits and to conduct compliance monitoring and enforcement activities. EPA estimates that the highest undiscounted cost incurred by the private sector in any one year is approximately \$480 million in 2005. The highest undiscounted cost incurred by the state and local governments in any one year is approximately \$42 million in 2005 (including facility compliance costs and state implementation cost). Thus, EPA has determined that this rule contains 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. Accordingly, EPA has prepared under §202 of the UMRA a written statement which is summarized below.

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## B5-1 ANALYSIS OF IMPACTS ON GOVERNMENT ENTITIES

Governments may incur two types of costs as a result of this proposed rule:

- ▶ direct costs to comply with the rule for facilities owned by government entities, and
- ▶ administrative costs to implement the regulation.

Both types of costs incurred by governments are discussed below.

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<sup>1</sup> The costs incurred by the federal government are not part of the unfunded mandates analyses and are therefore not included in the remainder of this chapter. The federal government owns 13 of the 550 Phase II facilities.

## B5-1.1 Compliance Costs for Government-Owned Facilities

Of the 550 existing in-scope facilities subject to the proposed rule, 65 are owned by a state or local government. These 65 facilities are owned by 45 government entities. None of the Phase II facilities are owned by a Tribal government. Table B5-1 presents the number of government entities that own facilities subject to the proposed rule and the number of in-scope facilities by ownership type. Of the 65 facilities that are owned by government entities, 48 are owned by municipalities, two are owned by municipal marketing authorities, seven are owned by state governments, and eight are owned by political subdivisions.

Table B5-1 also presents the total annualized compliance costs of the 65 facilities by owner type, the average annualized cost per facility, and the maximum undiscounted cost by the 65 government-owned facilities in any one year. The total annualized compliance costs incurred by the 65 government-owned Phase II facilities is \$19.6 million, or approximately \$301,300 per facility.<sup>2</sup> The seven state-owned facilities account for the largest average annualized compliance cost, with approximately \$445,000 per facility. The maximum undiscounted cost by the 65 facilities is \$36.3 million, estimated to be incurred in 2005. The 48 facilities owned by municipalities incur the largest share of this cost, with \$27.4 million.

<b>Ownership Type</b>	<b>Number of Government Entities</b>	<b>Number of Facilities</b>	<b>Total Annualized Compliance Costs (in millions, \$2001)</b>	<b>Average Compliance Cost (per facility)</b>	<b>Maximum One-Year Facility Compliance Costs (in millions, \$2001)</b>
Municipality	35	48	\$14.1	\$293,100	\$27.4
Municipal Marketing Authority	2	2	\$0.4	\$206,300	\$0.5
State Government	4	7	\$3.1	\$445,200	\$4.7
Political Subdivision	4	8	\$2.0	\$248,500	\$3.8
<b>Total</b>	<b>45</b>	<b>65</b>	<b>\$19.6</b>	<b>\$301,300</b>	<b>\$36.3</b>

Source: U.S. EPA analysis, 2002.

## B5-1.2 Administrative Costs

The requirements of section 316(b) are implemented through the National Pollutant Discharge Elimination System (NPDES) permit program. Forty-four states and one territory currently have NPDES permitting authority under Section 402(c) of the Clean Water Act (CWA). EPA estimates that states and territories will incur three types of costs associated with implementing the requirements of the proposed rule: (1) start-up activities; (2) permitting activities associated with the initial NPDES permit containing the new section 316(b) requirements and subsequent permit renewals; and (3) annual activities.<sup>3</sup> EPA estimates that the total costs for these activities will be \$3.62 million, annualized over 30 years at a seven percent rate. Table B5-2 below presents the annualized costs of the three major administrative activities.

<sup>2</sup> Chapter B1: Summary of Compliance Costs of this Economic and Benefits Analysis (EBA) presents information on the unit costs used to estimate facility compliance costs and the assumptions used to calculate annualized costs.

<sup>3</sup> The costs associated with implementing the requirement of the proposed Phase II rule are documented in EPA's Information Collection Request (U.S. EPA, 2002).

<b>Activity</b>	<b>Cost</b>
Start-Up Activities	\$0.02
Permitting Activities	\$2.66
Annual Activities	\$0.94
<b>Total</b>	<b>\$3.62</b>

Source: U.S. EPA analysis, 2002.

The start-up costs are incurred only once by each of the 45 permitting authorities. The first permit containing the new section 316(b) requirements, permit renewals, and annual activities are incurred on a per-permit basis. Based on the specific permitting requirements of each in-scope facility, EPA calculated total government costs of implementing the proposed Phase II rule by aggregating the unit costs for the first post-promulgation permit, and the repermitting and annual activities. The maximum one-year undiscounted implementation cost incurred by the government is \$6.4 million, in 2006.

The incremental administrative burden on states will also depend on the extent of each state's current practices for regulating cooling water intake structures (CWIS). States that currently require relatively modest analysis, monitoring, and reporting of impacts from CWIS in NPDES permits may require more permitting resources to implement the proposed Phase II rule than are required under their current programs. Conversely, states that currently require very detailed analysis may require fewer permitting resources to implement the proposed rule than are currently required.

The following subsections present more detail on the three types of implementation costs.

#### **a. Start-up activities**

Forty-four states and one territory with NPDES permitting authority are expected to undertake start-up activities to prepare for administering the proposed rule. Start-up activities include reading and understanding the rule, mobilization and planning of the resources required to address the rule's requirements, and training technical staff on how to review materials submitted by facilities and make determinations on the proposed Phase II rule requirements for each facility's NPDES permit. In addition, permitting authorities are expected to incur other direct costs, e.g., for copying and the purchase of supplies. Table B5-3 shows the total start-up costs EPA estimated permitting authorities to incur. Each permitting authority will incur start-up costs of \$3,546 as a result of the proposed Phase II rule. EPA assumes that the initial start-up activities will be incurred by all permitting authorities at the end of 2003, the year of promulgation of the Final Section 316(b) Phase II Existing Facilities Rule.

<b>Start-Up Activity</b>	<b>Start-Up Costs</b>
Read and Understand Rule	\$877
Mobilization/Planning	\$1,526
Training	\$1,093
Other Direct Costs	\$50
<b>Total</b>	<b>\$3,546</b>

Source: U.S. EPA analysis, 2002.

### **b. Initial post-promulgation permitting and repermitting activities**

The permitting authorities will be required to implement the section 316(b) Phase II rule by adding compliance requirements to each facility's NPDES permit. Permitting activities include incorporating section 316(b) requirements into the first post-promulgation permit and making modifications, if necessary, to each subsequent permit. The first permit containing the new section 316(b) requirements will be issued between 2004 and 2008.<sup>4</sup> Repermitting activities will take place every five years after initial permitting.

The proposed Phase II rule requires facilities to submit the same type of information for their initial post-promulgation permit and for each permit renewal application. Therefore, the type of administrative activities are similar for the initial post-promulgation and each subsequent permit. EPA identified the following major activities associated with state permitting activities: reviewing submitted documents and supporting materials, verifying data sources, consulting with facilities and the interested public, determining specific permit requirements, and issuing the permit. Table B5-4 below presents the state permitting activities and associated costs on a per permit basis. The permitting costs do not vary by type of facility to be permitted. The burden of repermitting is expected to be smaller than for the initial post-promulgation permit because the permitting authority is already familiar with the facility's case and the type of information the facility will provide.

Two of the permitting activities presented within Table B5-4 pertain only to facilities opting for a site-specific determination of best technology available (BTA). An authorized state is able to permit a facility to opt for alternative regulatory requirements if it can demonstrate that the alternative requirements will result in environmental performance within a watershed that is comparable to the reductions in impingement mortality and entrainment comparable to those otherwise achieved under the proposed Phase II rule. EPA estimates that 10 regulatory permitting authorities would incur permitting costs associated with site-specific determinations.

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<sup>4</sup> For an explanation of how the compliance years were assigned to facilities subject to the proposed Phase II rule, see *Chapter B1: Summary of Compliance Costs* of this EBA.

<b>Table B5-4: Government Permitting Costs (per Permit)</b>		
<b>Activity</b>	<b>Post-Promulgation Permit</b>	<b>Repermitting</b>
Review Source Water Physical Data	\$261	\$102
Review CWIS Data	\$782	\$232
Review Source Water Baseline Biological Characterization Data	\$1,462	\$439
Review Proposal for Collection of Information for Comprehensive Demonstration Study	\$1,170	\$366
Review Source Water Body Flow Information	\$261	\$102
Review Design and Construction Technology Plan	\$1,297	\$369
Review Impingement Mortality & Entrainment Characterization Study	\$19,230	\$5,769
Review Evaluation of Potential CWIS Effects	\$1,170	\$366
Review Restoration Measures <sup>a</sup>	\$2,066	\$620
Review Information to Support Site-Specific Determination of BTA <sup>b</sup>	\$41,320	\$12,396
Determine Monitoring Frequency	\$261	\$102
Determine Record Keeping and Reporting Frequency	\$261	\$102
Establish Requirements for Site-Specific Technology <sup>b</sup>	\$1,042	\$289
Considering Public Comments	\$1,170	\$366
Issuing Permits	\$238	\$57
Permit Record Keeping	\$117	\$22
Other Direct Costs	\$300	\$300
<b>Total<sup>c</sup></b>	<b>\$72,405</b>	<b>\$21,996</b>
<b>Site Specific Costs</b>	<b>\$42,362</b>	<b>\$12,685</b>

<sup>a</sup> Assumed to apply to only 10 percent of facilities.

<sup>b</sup> Cost incurred only for facilities conducting site-specific demonstrations.

<sup>c</sup> Individual numbers may not add up to total due to independent rounding.

Source: U.S. EPA analysis, 2002.

Initial post-promulgation permits that require all of the components listed in the table above are expected to impose a per permit cost per of \$72,405 on the permitting authority. A majority of the initial permitting costs result from the facility option for a site-specific determination of BTA. For the initial post-promulgation permit, the state administrative costs associated with the site-specific determination are estimated to be \$42,362, or approximately 59 percent of the total permitting costs. Permitting authorities would incur a maximum permit cost of \$30,043 for facilities that do not conduct a site specific determination for their initial post-promulgation permit.

The maximum state administrative cost for a permit renewal is \$21,996. For facilities that do not conduct a site specific determination, the cost per permit imposed on the permitting authority is reduced by \$12,685, resulting in a maximum permit cost of \$9,311.

**c. Annual activities**

In addition to the start-up and permitting activities previously discussed, permitting authorities will have to carry out certain annual activities to ensure the continued implementation of the requirements of the proposed Phase II rule. These annual activities include reviewing yearly status reports, tracking compliance, determination on monitoring frequency reduction, and record keeping.

Table B5-5 below shows the annual activities that will be necessary for each permit, beginning in the year after the first post-promulgation permit, and the estimated costs of each activity. A total cost of \$1,712 is estimated for each permit per year.

<b>Annual Activity</b>	<b>Annual Costs</b>
Review of Yearly Status Report	\$610
Compliance Tracking	\$521
Determination on Monitoring Frequency Reduction	\$407
Record Keeping	\$124
Other Direct Costs	\$50
<b>Total</b>	<b>\$1,712</b>

Source: U.S. EPA analysis, 2002.

**B5-1.3 Impacts on Small Governments**

EPA’s analysis also considered whether the proposed rule may significantly or uniquely affect small governments (i.e., governments with a population of less than 50,000). Table B5-6 presents by ownership size: (1) the number of entities owning facilities subject to the regulation; (2) the number of facilities; (3) compliance costs; and (4) the estimated average compliance cost per facility. EPA identified 22 facilities (of the 65 government-owned facilities) subject to the proposed rule that are owned by small governments.<sup>5</sup>

Table B5-6 shows that the estimated annualized compliance cost for all government-owned facilities is \$19.6 million. The 43 facilities owned by large governments would incur costs of \$13.6 million; the 22 facilities owned by small governments would incur costs of \$6 million.

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<sup>5</sup> Chapter B4: Regulatory Flexibility Analysis of this EBA provides more information on EPA’s determination of the size of entities owning the 550 in-scope facilities.

**Table B5-6: Number of Regulated Facilities and Compliance Costs by Entity Size**

Ownership Size	Number of Entities	Number of Facilities Subject to Regulation	Annualized Compliance Costs (in millions, \$2001)	Average Compliance Cost per Facility	Maximum One-Year Facility Compliance Costs (in millions, \$2001)
Facilities Owned by Small Governments	22	22	\$6.0	\$272,200	\$9.7
Facilities Owned by Large Governments	23	43	\$13.6	\$283,300	\$26.6
All Government-Owned Facilities	45	65	\$19.6	\$301,400	\$36.3
All Privately-Owned Facilities	85	471	\$153.0	\$324,700	\$479.0

Source: U.S. EPA analysis, 2002.

The total annualized compliance cost for the 22 facilities owned by small governments is \$6.0 million, or approximately \$272,000 per facility. In comparison, the total annualized compliance cost for the 43 facilities owned by large governments is \$13.6 million, or approximately \$283,000 per facility. For all of the 471 privately-owned facilities, the total annualized compliance cost is \$182.4 million, or approximately \$331,600 per facility. These numbers support EPA’s analysis in showing that small governments would not be significantly or uniquely affected by the proposed Phase II rule. The per facility average compliance cost incurred by facilities owned by small governments is less than the per facility compliance costs incurred by facilities owned by large governments and privately-owned facilities subject to the proposed Phase II rule.

## B5-2 COMPLIANCE COSTS FOR THE PRIVATE SECTOR

The private sector only incurs compliance costs associated with facilities subject to this proposed rule. These direct facility costs already include the cost to facilities of obtaining their NPDES permits. Of the 550 in-scope facilities subject to the proposed rule, EPA identified 471 to be owned by a private entity.

Compliance costs for individual facilities are presented in *Chapter B1: Summary of Compliance Costs* of this EBA. Total annualized (post-tax) compliance costs for the 471 privately-owned facilities are estimated to be \$153.0 million, discounted at seven percent. The maximum aggregate costs (undiscounted) for all 471 facilities in any one year is estimated to be \$479.0 million, incurred in 2005.

### B5-3 SUMMARY OF UMRA ANALYSIS

EPA estimates that the Proposed Section 316(b) Existing Facilities Rule will result in expenditures of \$100 million or greater for state and local governments, in the aggregate, or for the private sector in any one year. Table B5-7 summarizes the costs to comply with the rule for the 537 in-scope facilities (excluding the 13 facilities owned by the federal government) and the costs to implement the rule, borne by the responsible regulatory authorities.

Sector	Total Annualized Cost (Post-Tax)			Maximum One-Year Cost		
	Facility Compliance Costs	Government Implementation Costs	Total	Facility Compliance Costs	Government Implementation Costs	Total
Government Sector	\$19.6	\$3.6	\$23.2	\$36.3	\$5.8	\$42.2
Private Sector	\$153.0	n/a	\$153.0	\$479.0	n/a	\$479.0

Source: U.S. EPA Analysis, 2002.

The total annualized (post-tax) costs of the Proposed Section 316(b) Phase II Existing Facilities Rule borne by governments is approximately \$23.2 million, consisting of \$19.6 million in facility compliance costs and \$3.6 million in government implementation costs. The maximum one-year costs that will be incurred by government entities is expected to be \$42.2 million (\$36.3 million in facility compliance costs and \$5.8 million in implementation costs), incurred in 2005. Total annualized costs borne by the private sector is estimated by EPA to be \$153 million. The maximum one-year cost to the private sector is \$479 million, incurred in 2005.

## REFERENCES

U.S. Environmental Protection Agency (U.S. EPA). 2002. *Information Collection Request for Cooling Water Intake Structures, Phase II Existing Facility Proposed Rule*. ICR Number 2060.01. February 2002.

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