

TABLE VI-13.—ESTIMATED ANNUALIZED PRESENT VALUE COST FOR UNCOVERED FINISHED WATER STORAGE FACILITY PROVISION (2000\$)

System size (population served)	Annualized cost at 3%			Annualized cost at 7%		
	Capital	O&M	Total	Capital	O&M	Total
≤10,000 .....	\$3,520	\$1,649	\$5,169	\$4,713	\$1,552	\$6,264
>10,000 .....	3,349,320	2,046,425	5,395,745	4,483,927	1,925,203	6,409,129
Total .....	3,352,840	2,048,074	5,400,915	4,488,639	1,926,754	6,415,393

Source: Appendix I of the LT2ESWTR Economic Analysis (USEPA 2003a)

e. *Future monitoring costs.* Six years after initial bin classification, filtered and unfiltered plants will be required to conduct a second round of monitoring to assess whether source water *Cryptosporidium* levels have changed significantly. EPA will evaluate new analytical methods and surrogate indicators of microbial water quality in the interim. While the costs of monitoring are likely to change in the six years following rule promulgation, it is difficult to predict how they will change. In the absence of any other

information, it was assumed that the laboratory costs would be the same as for the initial monitoring.

All plants that conducted initial monitoring were assumed to conduct the second round of monitoring as well, except for those systems that installed treatment that reduces 2.5 logs of *Cryptosporidium* or greater as a result of the rule. These systems are exempt from monitoring under the LT2ESWTR. Table VI-8 shows the number of systems that are estimated to conduct the second round of monitoring (listed as “future”

monitoring in the table). EPA estimates the cost of re-binning will range from \$23 million to \$38 million depending on the occurrence data set and discount rate used in the estimate (see Table VI-14). Costs differ among *Cryptosporidium* occurrence data sets due to differences in estimates of the number of plants that will add technologies to achieve at least 2.5 log *Cryptosporidium* reduction and the number of small plants that will be triggered into monitoring for *Cryptosporidium*. Appendix D of the EA provides further details (USEPA 2003a).

TABLE VI-14.—PRESENT VALUE OF MONITORING COSTS OF FUTURE RE-BINNING  
[\$millions, 2000\$]

System size	ICR (3%)	ICR (7%)	ICRSSL (3%)	ICRSSL (7%)	ICRSSM (3%)	ICRSSM (7%)
	A	B	C	D	E	F
≤10K .....	\$23.5	\$14.3	\$18.4	\$11.3	\$20.7	\$12.6
>10k .....	14.4	9.8	16.4	11.2	15.6	10.7
Total .....	37.8	24.1	34.8	22.5	36.3	23.3

Source: Chapter 6 of the LT2ESWTR Economic Analysis (USEPA 2003a)

f. Sensitivity analysis—influent bromide levels on technology selection for filtered plants. One concern about the ICR data set was that it may not actually reflect influent bromide levels in some plants during droughts. High influent bromide levels (the precursor for bromate formation) limits ozone use because the plant would not be able to meet the MCL for bromate. The Agency conducted a sensitivity analysis to estimate an impact of higher influent bromide levels would have on technology decisions. The sensitivity analysis assumes influent bromide concentrations of 50 parts per billion (ppb) above the ICR concentrations. Overall, the impact of these assumptions have a minimal impact on costs. A complete discussion of this sensitivity analysis is located in LT2ESWTR EA (USEPA 2003a).

### 3. State/Primacy Agency Costs

The Agency estimates that States and primacy agencies will incur an annualized present value cost of \$0.9 to

\$1.0 million using a three percent discount rate and \$1.2 million at seven percent. State implementation activities include regulation adoption and program implementation, training State staff, training PWS staff, providing technical assistance to PWSs, and updating the management system. To estimate implementation costs to States/Primacy Agencies, the number of full-time employees (FTEs) per activity is multiplied by the number of labor hours per FTE, the cost per labor hour, and the number of States and Territories.

In addition to implementation costs, States and primacy agencies will also incur costs associated with monitoring data management. Because EPA will directly manage the first round of monitoring by large systems (serving at least 10,000 people), States are not predicted to incur costs for these activities. States will, however, incur costs associated with small system monitoring. This is a result of the delayed start of small system monitoring, which will mean that some

States will assume primacy for small system monitoring. In addition, States will review of the second round of monitoring results. States will also incur costs in reviewing technology compliance data and consulting with systems regarding benchmarking for systems that change their disinfection procedures to comply with the rule. Appendix D of the LT2ESWTR EA provides more information about the State and primacy agency cost analysis (USEPA 2003a).

### 4. Non-Quantified Costs

EPA has quantified all the major costs for this rule and has provided uncertainty analyses to bound the over or underestimates in the costs. There are some costs that EPA has not quantified, however, because of lack of data. For example, some systems may merge with neighboring systems to comply with this rule. Such changes have both costs (legal fees and connecting infrastructure) and benefits (economies of scale). Likewise, systems would incur