

TABLE VI-11.—TOTAL PRESENT VALUE AND ANNUALIZED PRESENT VALUE TREATMENT COSTS FOR FILTERED AND UNFILTERED PLANTS

Data Set	System Size (population served)	Present Value Cap- ital Costs at 3% A	Present Value Cap- ital Costs at 7% B	Annualized O&M Costs at 3% C	Annualized O&M Costs at 7% D	Total Annualized Costs at 3% E	Total Annualized Costs at 7% F
ICR	≤10,000	\$76.1	\$56.0	\$5.2	\$4.3	\$9.6	\$9.1
	>10,000	1,092.4	868.0	26.1	22.7	88.8	97.1
TOTAL		1,168.5	924.0	31.3	26.9	98.4	106.2
ICRSSL	≤10,000	42.8	31.5	2.9	2.4	5.3	5.1
	>10,000	707.1	561.8	16.2	14.0	56.8	62.3
TOTAL		749.8	593.3	19.0	16.4	62.1	67.3
ICRSSM	≤10,000	52.6	38.7	3.5	2.9	6.6	6.2
	>10,000	842.4	669.3	19.4	16.9	67.8	74.3
TOTAL		894.9	708.0	23.0	19.8	74.4	80.6

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

d. *Uncovered finished water storage facilities.* As part of the LT2ESWTR, systems with uncovered finished water storage facilities have the option to cover the storage facility or provide disinfection after the storage facility, unless the State has determined that existing risk mitigation is adequate. Disinfection alternatives must achieve at least four logs of virus inactivation. To develop national cost estimates for systems to comply with this provision of the LT2ESWTR, unit costs for each treatment alternative and the percentage of systems selecting each alternative were estimated for the inventory of systems with uncovered finished water storage facilities. A full description of the unit costs and other assumptions

used in this analysis is presented in Chapter 6 and Appendix I of the LT2ESWTR EA (USEPA 2003a).

The Agency assumed that all systems with uncovered finished water storage facilities will have to either install a cover or treat their discharge. This overestimates the cost of this provision because States can determine that systems with uncovered finished storage facilities do not need to take these additional measures. The technology selection for the uncovered finished water storage facilities was developed through a least-cost approach.

For systems with uncovered storage facility capacities of five million gallons (MG) or less, covering the storage facilities is the least expensive alternative. Although chlorination is the

least expensive alternative for the remaining systems, the ability of a system to use booster chlorination depends on their current residual disinfectant type. Less than half of all surface water systems are predicted to use chloramination following implementation of the Stage 2 DBPR. Adding chlorine to water that has been treated with chloramines is not a feasible alternative; therefore, the fraction of systems projected to add booster chlorination to the effluent from the storage facility was estimated at 50 percent, with the remaining 50 percent estimated to add covers. The technology selection for uncovered finished water storage facilities is presented in Table VI-12.

TABLE VI-12.—ESTIMATED TECHNOLOGY SELECTION FOR UNCOVERED STORAGE FACILITIES

Size category (MG)	Number of uncovered storage facilities	Floating cover (%)	Booster chlorination (%)
0–0.1	25	100
0.1–1	7	100
>1–5	44	100
>5–10	12	100
>10–20	10	100
>20–40	9	50	50
>40–60	4	50	50
>60–80	4	50	50
>80–100	6	50	50
>100–150	6	50	50
>150–200	2	50	50
>200–250	4	50	50
>250–1,000	4	50	50
>1,000	1	50	50

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

Table VI-13 summarizes total annualized present value costs for the uncovered storage facility provision using both three and seven percent

discount rates. The Agency estimates the total annualized present value cost for covering or treating uncovered finished water storage facilities to be

approximately \$5.4 million at a three percent discount rate and \$6.4 million at a seven percent discount rate.