

Table VII-13. Potential Annual Household Cost Impacts

All Households Subject to the Stage 2 DBPR							
	Total Number of Households Served (Percent of Total)	Mean Annual Household Cost Increase	Median Annual Household Cost Increase	90th Percentile Annual Household Cost Increase	95th Percentile Annual Household Cost Increase	Percentage of Annual Household Cost Increase < \$12	Percentage of Annual Household Cost Increase < \$120
All Systems	98,254,000 (100.0%)	\$0.51	\$0.02	\$0.47	\$0.79	99.24%	99.96%
All Small Systems	14,522,000 (100.0%)	\$1.66	\$0.18	\$0.90	\$2.96	98.23%	99.74%
SW ≤ 10,000	3,165,000 (3.2%)	\$3.72	\$0.90	\$2.96	\$5.51	97.89%	99.09%
SW > 10,000	58,876,000 (59.9%)	\$0.34	\$0.00	\$0.32	\$0.33	99.35%	100.00%
GW ≤ 10,000	11,357,000 (11.6%)	\$1.08	\$0.11	\$0.53	\$1.37	98.37%	99.92%
GW > 10,000	24,857,000 (25.3%)	\$0.23	\$0.01	\$0.47	\$0.47	99.57%	100.00%
Households Served by Plants Adding Treatment							
	Number of Households Served (Percent of Total)	Mean Annual Household Cost Increase	Median Annual Household Cost Increase	90th Percentile Annual Household Cost Increase	95th Percentile Annual Household Cost Increase	Percentage of Annual Household Cost Increase < \$12	Percentage of Annual Household Cost Increase < \$120
All Systems	4,793,000 (4.9%)	\$8.52	\$1.22	\$20.57	\$33.98	84.47%	99.18%
All Small Systems	422,000 (2.9%)	\$43.78	\$19.05	\$117.68	\$166.67	39.38%	91.12%
SW ≤ 10,000	142,000 (4.5%)	\$60.64	\$9.08	\$166.67	\$270.04	54.36%	79.78%
SW > 10,000	3,868,000 (6.6%)	\$5.02	\$1.02	\$11.58	\$23.56	90.16%	99.96%
GW ≤ 10,000	279,000 (2.5%)	\$35.18	\$19.22	\$72.07	\$117.68	33.71%	96.94%
GW > 10,000	504,000 (2.0%)	\$5.90	\$1.33	\$26.33	\$33.24	78.73%	100.00%

Note: Detail may not to total add due to independent rounding. The last two columns show the % change as < \$1 or < \$10 increase in monthly water bills

Source : Economic Analysis (USEPA 2003i) Exhibit 6.20

Both household cost estimates reflect costs for rule implementation (e.g., reading and understanding the rule), IDSE, additional routine monitoring, and treatment changes. Although implementation and the IDSE represent relatively small, one-time costs, they have been annualized and included in the analysis to provide a complete picture of household costs.

Overall, EPA estimates that 99 percent of the 98 million households that are provided disinfected drinking water would face less than \$1 increase in their monthly water bill. Approximately 86 percent of the households impacted by the rule are served by systems serving at least 10,000 people; these systems experience the lowest increases in costs due to significant economies of scale. Households served by small systems that install advanced technologies will face the greatest increases in annual costs. The cumulative distributions of household costs for all systems are presented in the Economic Analysis (USEPA 2003i).

When interpreting the results of the household cost analysis, it is important to remember that systems, especially small systems, may have other options that were not included in the

compliance forecast. For example, the system may identify another water source that may form lower levels of TTHM and HAA5. Systems that can identify such an alternate water source may not have to treat that water as much as their current source, resulting in lower treatment costs that may offset the costs of obtaining water from the alternate source. Systems may also be able to connect to a neighboring water system. While connecting to another system may not be feasible for some remote systems, EPA estimates that more than 22 percent of all small water systems are located within metropolitan regions (USEPA 2000c) where distances between potential connecting water systems may not present a prohibitive barrier. Consolidation was not an element used in developing the compliance forecasts for small systems. Costs for consolidation may be either greater or less than the costs for changing technologies, and consolidation may have other benefits (e.g., lower costs for compliance with future regulations). In addition, potentially lower cost alternatives such as controlling water residence time in the distribution systems were not included in the compliance forecast.

Also, more small systems than projected in the primary analysis may already be in compliance with Stage 2 DBPR. A sensitivity analysis discussed in the subsection VII.D.2 describes this issue in more detail. Also, certain technologies installed to treat DBPs may treat many other contaminants thus eliminating the need to install additional equipment to comply with future drinking water regulations.

G. Incremental Costs and Benefits of the Proposed Stage 2 DBPR

Incremental costs and benefits are those that are incurred or realized in reducing DBP exposures from one alternative to the next more stringent alternative. Estimates of incremental costs and benefits are useful in considering the economic efficiency of different regulatory options considered by the Agency. However, as pointed out by the Environmental Economics Advisory Committee of the Science Advisory Board, efficiency is not the only appropriate criterion for social decision making (USEPA 2000n).

Generally, the goal of an incremental analysis is to identify the regulatory option where net social benefits are maximized. If net incremental benefits