

Table VII-15. Total Annualized Present Value Benefits by Rule Alternative (\$millions, 2000\$)

	Discount Rate, WTP for Non- Fatal Cases	Preferred Alternative	Alternative 1	Alternative 2	Alternative 3
Number and Value of Estimated Bladder Cancer Cases Avoided¹					
Causality has not been established; however, the weight of evidence supports PAR estimates of potential benefits. Zero is within the range of potential benefits, but evidence indicates that both the number of cases and the value of preventing those cases could be significant (see below).					
2% PAR					
Average Annual Number of Cases Avoided		21	22	135	161
Annualized Benefits of Cases Avoided (90% Confidence Bounds) ²	3 %, Lymphoma	\$113 (\$18 - 258)	\$117 (\$19 - 268)	\$773 (\$116 - 1,675)	\$873 (\$139 - 1,995)
	7 % Lymphoma	\$98 (\$16 - 224)	\$102 (\$16 - 232)	\$636 (\$101 - \$1,452)	\$757 (\$120 - 1,730)
	3 % Bronchitis	\$55 (\$13 - 120)	\$57 (13 - 124)	\$356 (\$81 - 776)	\$424 (\$97 - 924)
	7 % Bronchitis	\$48 (\$11 - 104)	\$49 (\$11 - 108)	\$309 (\$71 - 673)	\$368 (\$84 - 802)
17% PAR Value					
Average Number of Cases Avoided		182	189	1,182	1,408
Annualized Benefits of Cases Avoided (90% Confidence Bounds) ²	3 %, Lymphoma	\$986 (\$157 - 2,253)	\$1,024 (\$163 - 2,340)	\$6,398 (\$1,016 - 14,619)	\$7,621 (\$1,211 - 17,415)
	7 % Lymphoma	\$854 (\$136 - 1,952)	\$887 (\$141 - 2,027)	\$5,546 (\$881 - 12,672)	\$6,607 (\$1,050 - 15,097)
	3 % Bronchitis	\$479 (\$109 - 1,044)	\$498 (\$114 - 1,084)	\$3,109 (\$709 - 6,771)	\$3,704 (\$845 - 8,066)
	7 % Bronchitis	\$415 (\$95 - 905)	\$431 (\$99 - 940)	\$2,697 (\$616 - 5,871)	\$3213 (\$734 - 6,995)
Adverse Reproductive and Developmental Health Effects Avoided					
Causality has not been established, and numbers and types of cases avoided, as well as the value of such cases, were not quantified in the primary benefits analysis. Given the numbers of women of child bearing age exposed (58 million), the evidence indicates that the number of cases and the value of preventing those cases could be significant. See results of the illustrative calculation in VII.C.1.					
Other Health Benefits					
Qualitative assessment indicates that the value of other health benefits could be positive and significant.					
Non-Health Benefits					
Qualitative assessment indicates that the value of non-health benefits could be positive.					

1. Based on TTHM as indicator. EPA recognizes that the lower bound estimate may be as low as zero since causality has not yet been established between exposure to chlorinated water and bladder cancer.

2. The 90 percent confidence bounds shown in the exhibit reflect uncertainty in the VSL, WTP, and income elasticity adjustment.

Source: Economic Analysis (USEPA 2003i) exhibit 5.28

The range of quantified benefits increases significantly with Alternatives

2 and 3. However, the associated costs also increase significantly—cost figures

presented in Table VII-14 show values approaching or exceeding \$500 million