Appendix C - Summary of Elasticity Studies

Study author(s) / Year	Title	Area studied	Price elasticity of demand estimates
Eric Coleman (2009)	A Comparison of Demand-Side Water Management Strategies Using Disaggregate Data	Salt Lake City, Utah	Long run −0.485 Short run −0.391 Summer −1.445 Winter −0.378 Residential −0.413 Non-residential −0.665
Central Utah Water Conservancy District (1995)	Water Pricing Policy Report	Utah	-0.592
Erickson (1991)	The Effect of Dual Systems on Price Elasticity of Residential Water Demand	Utah	-0.487 to -0.593
Hansen and Narayanan (1981)	A Monthly Time Series Model of Municipal Water Demand	Utah	-0.469
Jasper M. Dalhuisen, Raymond J. G. M. Florax, Henri L. F. de Groot and Peter Nijkamp (2003)	Price and Income Elasticities of Residential Water Demand: A Meta-Analysis	Meta-analysis of many price elasticity estimates	-0.41
Epsy, Epsy, and Shaw (1997)	Price Elasticity of Residential Demand for Water: A Meta-Analysis	Meta-analysis of many price elasticity estimates	Average -0.51 Long run median -0.64 Short run median -0.38
Benedykt Dziegielewski (2003)	Strategies for Managing Water Demand	Meta-analysis of many price elasticity estimates	Total urban -0.40 Residential -0.33 Nonresidential -0.54 Commercial -0.34 Industrial -0.58 Institutional -0.47 Agricultural -0.46
Kenneth A. Baerenklau, Kurt A. Schwabe, Ariel Dinar (2014)	Do Increasing Block Rate Water Budgets Reduce Residential Water Demand? A Case Study in Southern California	Eastern Municipal Water District, California	-0.69

James Yoo, Silvio Simonit, Ann P. Kinzig and Charles Perrings (2014)	Estimating the Price Elasticity of Residential Water Demand: The Case of Phoenix, Arizona	Phoenix, Arizona	Long run −1.155 Short run −0.661
Klaiber, Smith, Kaminsky, and Strong (2014)	Measuring price elasticities for residential water demand with limited information	Phoenix, Arizona	Wet years -0.77 Dry years -0.36
Sheila Olmstead, Michael Hanemann, and Robert Stavins (2006)	Do Consumers React to the Shape of Supply? Water Demand Under Heterogeneous Price Structures	11 urban areas in US and Canada	Household -0.33
Shanthi Nataraj	Do Residential Water Consumers React to Price Increases? Evidence from a Natural Experiment in Santa Cruz	Santa Cruz, California	3 year -0.522 1 year -0.263
Kenneth A. Baerenklau, Kurt A. Schwabe, Ariel Dinar (2014)	The Residential Water Demand Effect of Increasing Block Rate Water Budgets	Southern California	-0.76
Bruce R. Billings and Donald E. Agthe (1980)	Price Elasticities for Water: A Case of Increasing Block Rates	Tucson, Arizona	-0.27 (log model) -0.45 to -0.61 (linear model)
Julie A Hewitt, Michael D. Hanemann (2000)	A discrete/continuous choice approach to residential water demand under block rate pricing.	Demon, Texas	-1.586
Manuel Gottlieb (1963)	Urban Domestic Demand for Water: A Kansas Case Study	Kansas & United States	Kansas -0.66 to -1.23 U.S. -0.39
Charles Howe, F.P. Linaweaver (1967)	The Impact of Price on Residential Water Demand and Its Relation to System Design and Price Structure	United States	-0.23
Kenneth C. Gibbs (1978)	Price Variable in Residential Water Demand Models	Miami, Florida	-0.51
Henry S. Foster, Jr.	Urban Residential Demand for	United States	-0.52

and Bruce R. Beattie (1979)	Water in the United States		
R. Bruce Billings (1982)	Specification of Block Rate Price Variables in Demand Models.	Tucson, Arizona	-0.70
J.E. Schefter and E.L. David (1985)	Estimating Residential Water Demand under Multipart Tariffs Using Aggregate Data.	Wisconsin	-0.12
David L. Chicoine, Steven C. Deller, and Ganapathi Ramamurthy (1986)	Water Demand Estimation Under Block Rate Pricing: A Simultaneous Equation Approach	Illinois	-0.71
David L. Chicoine and Ganapathi Ramanurthy (1986)	Evidence on the Specification of Price in the Study of Domestic Water Demand	Illinois	-0.48
Michael L. Nieswiadomy and David J. Molina (1989)	Comparing Residential Water Demand Estimates under Decreasing and Increasing Block Rates Using Household Data.	Denton, Texas	-0.36 to -0.86
Mary E. Renwick and Sandra O. Archibald (1997)	Demand Side Management Policies for Residential Water Use: Who Bears the Conservation Burden	California	-0.33
R.G. Taylor, John R. McKean, and Robert A. Young (2004)	Alternative price specifications for estimating residential water demand with fixed fees.	Colorado	-0.416
Donald E. Agathe and Bruce R. Billings (1987)	Equity, price elasticity, and household income under increasing block rates for water	Tucson, Arizona	Low Income -0.565 Medium Income -0.49 Upper Income -0.46 High Income -0.397