If policymakers address water scarcity with the demand-oriented approach, the income elasticity of water demand is of pivotal importance. Its estimates, however, differ considerably. We collect 307 estimates of the income elasticity of water demand reported in 62 studies, codify 31 variables describing the estimation design, and employ Bayesian model averaging to address model uncertainty inherent to any meta-analysis. The studies were published between 1972 and 2015, which means that this meta-analysis covers a longer period of time than two previous meta-analyses on this topic combined. Our results suggest that income elasticity estimates for developed countries do not significantly differ from income elasticity estimates for developing countries and that different estimation techniques do not systematically produce different values of the income elasticity of water demand. We find evidence of publication selection bias in the literature on the income elasticity of water demand with the use of both graphical and regression analysis. We correct the estimates for publication selection bias and estimate the true effect beyond bias, which reaches approximately 0.2.