# EXTENDING MUNICIPAL WATER DEMAND
## FORECASTING CAPACITIES

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## WHY DID WE DEVELOP THE BROCKWATER PROGRAM?

Water suppliers run the risk of overestimating future demands unless they account for households' responsiveness to price changes and conservation measures. With the BROCKWATER program, planners working for small and medium size municipal water agencies have the capacity to account for households' behaviour when making water demand projections.

**Forcasted Annual Water Demand with Average Price of Water**



Legend:
- Water Demand w/ Elasticity of -0.5
- Water Demand w/o Elasticity
- Price
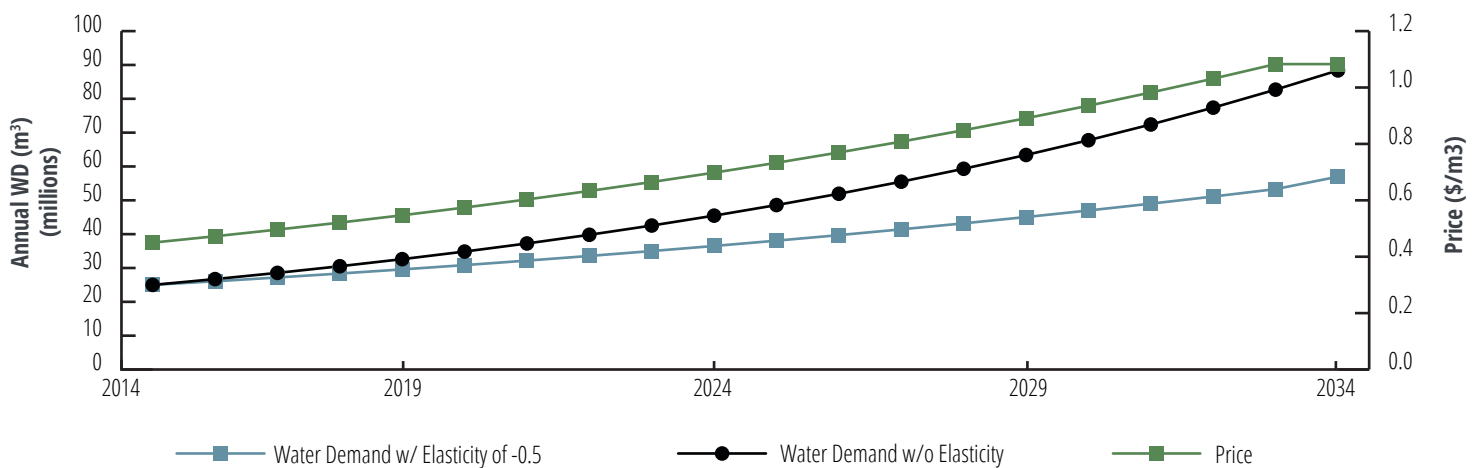
## HOW DOES THE PROGRAM WORK?

The team investigated households' responsiveness to price changes using data provided by several Canadian municipal partners (Victoria, Calgary and Guelph). This information served as the basis for the development of the spreadsheet-based water demand simulation tool.

## WHAT ARE THE RESULTS?

The above diagram is an example of output created by the demand projection software (BROCKWATER). The blue line shows that demand projections can seriously overestimate likely future water demands if they assume (contrary to available evidence) that households do not respond to price changes. The black line is the demand projection that accounts for households' responsiveness.

## WHAT ARE THE IMPLICATIONS FOR DECISION MAKERS?

Differences across communities exist but Canadian households regularly respond to price and non-price measures by lowering water demands. BROCKWATER shows that accounting even for modest degrees of price responsiveness has a major impact on projected demands.

Using the BROCKWATER program has several implications for end-users: (1) the capacity to produce more accurate water demand forecasts, (2) a planning tool that allows agencies to assess likely impacts of pricing and other policy measures, (3) the capacity to improve integration of capital investment planning and demand growth and to assess benefits of demand-side management, (4) the capacity to engage their stakeholders.

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