

DRAFT - WATER METERING AND VOLUMETRIC CHARGING ON DOMESTIC DWELLINGS

Policy

The NZWWA supports metering and direct volumetric charges being placed on domestic dwellings connected to local authority reticulated water schemes, as tools to assist in managing the demand for water, by reducing household use and the volume of wastewater required to be transported and treated, thus improving *efficiency* by conserving financial resource associated with capital investment in infrastructure, as well as maintenance and operational costs including energy consumption.

Explanation

Local authorities face significant cost in providing potable water supplies and removing and processing wastewater. There is a directly proportional relationship between the volume of water used by household residents and the volume of wastewater required to be removed and processed. Reducing the demand for potable water results in a reduction in the volume of waste water required to be transported and processed.

Nationally just under 30% of total Territorial Local Authority (TLA) expenditure is allocated to the provision of potable water supply, waste water removal and treatment as well as storm water management. Reducing demand reduces the cost of supply, assists in deferring capital expenditure on new potable water supplies and wastewater treatment systems, and associated ongoing maintenance costs.

A suite of policy instruments are available to assist in managing the domestic demand for potable water.

These include:

- educating the public to moderate demand;
- encouraging the use of efficient technologies such as low flow shower heads, dual flush toilets, 'water efficient' dishwashers and washing machines;
- Reducing water loss from reticulated systems;
- Collection and use of rainwater and 'grey water' at individual dwellings;
- Regulatory instruments being applied at a national or TLA level to encourage moderation of demand.

Metering and volumetric charging for domestic water supply is currently employed by 11 of the 73 territorial local authorities in New Zealand. A further 8 TLAs have metering in some areas of their respective jurisdictions. One further TLA requires the installation of meters at domestic dwellings but does not impose volumetric charging.

The Local Government Act prevents TLAs from applying variable charges for the collection and processing of wastewater from domestic dwellings. Council controlled organisations contracted to supply water services may impose variable charges for this service.

The average daily per capita water use across TLAs that impose volumetric charging for water supply is typically in the region of 200 litres. This contrasts with figures of over 700 litres from some TLAs without metering and volumetric charging.

The introduction of metering and volumetric charging provides an effective tool for moderating domestic demand, producing almost immediate efficiency gains. For example, using this tool Nelson City reported a 37% reduction in peak summer demand periods.

New technologies being introduced allow for cost efficient monitoring of such systems. Cost/benefit analyses of water metering and volumetric charging indicate that associated capital and operating expenditure produces a high rate of return. One TLA has reported that the introduction of metering delayed estimated capital expenditure of \$75 million on water supply investments for around 10-12 years. More recently the same TLA has estimated \$30million to \$40 million of wastewater treatment investment can now be deferred for up to eight years. These savings have resulted from the \$9.7 million cost of installing metering in every household.

The application of uniform annual charges to reticulated domestic dwellings produces inequitable economic outcomes, with high volume users being cross subsidised by low use householders.

Where there is pressure on water supplies available to be allocated for TLA reticulated schemes, it is likely that regional authorities will require evidence of demand management as conditions on consents.

On environmental, economic and social equity grounds the case for metering and volumetric charging is compelling.