



SUSTAINABLE INFRASTRUCTURE

Sustainable infrastructure: overview

Many aspects of economic, environmental and social well-being in Rotorua depend on effective and sustainable infrastructure such as water supply and wastewater treatment. Although it is not always acknowledged, the provision of services such as water, power and energy to our homes, and the removal of waste, are absolutely fundamental to the quality of life. It is also important to acknowledge that infrastructure projects can have an impact on the environment, and careful planning is required to ensure that any impact is minimal. As society continues to change, and requirements for services change with it, a long term approach to infrastructure planning is critical.

The sustainable infrastructure theme includes monitoring of four environmental indicators that relate to drinking water, wastewater and transport.

How are we going?

Overall, the indicators for sustainable infrastructure show an improvement. Although Rotorua's population has increased since 2002 the amount of water abstracted from sources has remained steady, along with total water consumption. Treatment of wastewater has resulted in the removal of a large proportion of nitrogen and phosphorus before the water finds its way to Lake Rotorua.

What are we doing?

Council has a Water Supply Strategy in place that looks at different scenarios for planning infrastructure upgrades and the volume of water required to meet the demands of residential, industrial, commercial and seasonal growth to the year 2051. Information from this strategy helps us plan for future development and growth in eastern and western growth areas of the district.





Wherever water is supplied there must be a means of disposal. The sewerage reticulation scheme aims at extending services to lakeside communities not already serviced. In most cases this means septic tanks (that do not treat the wastewater) will no longer be used. Two major benefits from reticulation are improved health standards and environmental conditions.

The Water Services and Trade Wastes Bylaw 2004 places conditions on the supply of water, regulation of discharge of trade wastes and discharge of stormwater from residential and trade properties.

In the urban area, anything that is disposed of down the drain eventually ends up at the wastewater treatment plant, which removes solids and some nutrients but not chemicals. The wastewater then undergoes tertiary treatment by being sprayed on to forest land. It then travels through the soil, into streams and eventually to Lake Rotorua. It is important that dangerous chemicals or other wastes are not disposed of into the drains.

The wastewater treatment plant has undergone a number of upgrades since 2002. Research into improved tertiary treatment of wastewater and also for alternative uses for sludge is underway. One such alternative use is 'waste to energy', where the sludge is safely and cleanly burnt to produce electricity.

Sustainable infrastructure indicators are:

Indicator	State
Drinking water: Abstraction of water from source(s)	 STEADY
Drinking water: Consumption of drinking Water	 STEADY
Wastewater: Percentage of Nitrogen & Phosphorus removed at WWTP and by land treatment	 GETTING BETTER
Wastewater: Sewage derived Nitrogen and Phosphorus in Waipa Stream	 STEADY

