Activity 12.0: Water Supply
Accountable Manager: Mark Christison

Committee discussed whether volumetric charging for water should be included in this LTP. On advice of staff, it noted the Council Water Supply Strategy includes an economic and legal review of charging for water and the LTP will include budget for these investigative projects. Any implementation decisions would be considered by the Council following these investigative projects.

What services are provided?

- Supplying potable water to properties, through the provision of infrastructure to treat (where appropriate), store, pipe and monitor the supply.

Why do we provide these services?

To meet the public expectation that water is safe to drink, will be supplied to properties, will be available for fire-fighting purposes

What outcomes are we trying to achieve?	How do the services contribute to desired outcomes?
The Council's water supplies meet the public's reasonable needs	*The Council provides and maintains infrastructure to abstract, store, treat when needed, deliver and monitor a reliable supply of water to properties that is safe to drink and is available for fire-fighting purposes.*
Christchurch has clean, safe drinking water	*Laboratory services monitor the quality of the public drinking water supplies to enable the Council to ensure that agreed standards are consistently met.*
Injuries and risks to public health are minimised	*Risks to the quality of public water supplies are monitored and managed to ensure agreed standards are consistently met.*

Which group or section of the community will benefit from this activity?:
Christchurch residents, ratepayers, visitors to Christchurch, commercial and industrial businesses, local iwi, developers, regulatory authorities

Key legislation:

- Local Government Act 1974 and 2002
- Resource Management Act 1991
- Natural Resources Regional Plan
- Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007
- Health (Drinking Water) Amendment Act 2007
- Drinking-Water Standard for New Zealand (as revised)
- Water Related Services Bylaw 2008
- National Policy Statement for Freshwater Management 2011
- National Environmental Standards
- Building Act 2004
- Canterbury Earthquake Recovery Act 2011

Customer

What business results must we deliver to our customers, to deliver on the outcomes?

Performance Standards for LTP

Performance Standards for LTP	Current performance	Benchmarks	Recommended LOS	Rationale	LTP Committee Direction
12.0.1 Supply continuous potable water to all customers	12.0.1.1 2009/10: 11.8 2010/11: 41* 2011/12: 17.6** Current LOS pre-earthquakes performance: 12 unplanned interruptions per 1000 properties served per annum 12.0.1.2 2009/10: 0.74 2010/11: 1.2*** 2011/12: NA**** Current LOS: less than one unplanned shutdown of no more than four hours on average per week	National Performance Report Urban Utilities Australia 2010-2011: Range 13 - 46 unplanned supply interruptions / 1000 properties served Actual median 27/1000 properties from 11 utilities of greater than 100,000 people Watercare target less than 10/1000 properties Dunedin target less than 12/1000 properties Wellington Area target less than 4/1000 properties	12.0.1.1 Ensure unplanned interruptions per 1000 properties served per year: 2013/14 no more than 40 2014/15 no more than 30 2015/16 no more than 20 2016/17 no more than 16 12.0.1.2 Ensure unplanned interruptions of greater than four hours, on average per week each year: 2013/14 no more than 1.75 2014/15 no more than 1.5 2015/16 no more than 1.25 2016/17 no more than 1.0	Measuring and managing customer service and the continuity of water supply within the City and Banks Peninsula. Elevated interruptions likely to continue until infrastructure rebuild well advanced across entire city The target excludes any unplanned interruptions arising for SCIRT works. *Based on six months of data: July, August, November, December 2010 and January, February 2011 extrapolated to full year total. **Based on eight months: October 2011 to June 2012 extrapolated to full year total. ***Based on four months of data: July, August, December 2010, January 2011 extrapolated to full year total. ****This information was not accurately enough captured during this year.	***Accepted***

Customer

What business results must we deliver to our customers, to deliver on the outcomes?

Performance Standards for LTP

Performance Standards for LTP	Current performance	Benchmarks	Recommended LOS	Rationale	LTP Committee Direction
12.0.1 Supply continuous potable water to all customers	12.0.1.3 2009/10: 98.6 2010/11: 83.2* 2011/12: 44 12.0.1.4 2009/10: 96.5 2010/11: 75* 2011/12: 75.5 12.0.1.5 2009/10: 98.3 2010/11: 93.6* 2011/12: 54.7 12.0.1.6 2009/10: 97.2 2010/11: 92.4* 2011/12: 56.0	Wellington Area target: 97% requests responded to within one hour of notification Dunedin 95% of response times met Watercare Target 95% responded to within five hours Australian Urban Utilities median response time two hours	12.0.1.3 Ensure major leaks have a CCC representative on site to assess and confirm repair options within one hour of being reported to Council for urban areas: 2013/14 at least 70% 2014/15 at least 80% 12.0.1.4 Ensure major leaks have a CCC representative on site to assess and confirm repair options within two hours of being reported to Council for rural areas: 2013/14 at least 70% 2014/15 at least 80% 12.0.1.5 Ensure medium leaks are repaired within one working day of being reported to Council for urban and rural areas: 2013/14 at least 70% 2014/15 at least 80% 12.0.1.6 Ensure minor leaks are repaired within three working days of being reported to Council for urban and rural areas: 2013/14 at least 70% 2014/15 at least 80%	The prompt response times are considered necessary to align with the Council's water conservation programme, and to avoid potential erosion on the hill areas of the City. Note these response times are embedded in current service agreements. Urban areas are defined as urban Christchurch and Lyttelton, whereas rural is defined by other areas, including Banks Peninsula. * Based on six months data: July, August 2010, November, December, January, February 2011.	***Accepted***

Customer

What business results must we deliver to our customers, to deliver on the outcomes?

Performance Standards for LTP

Performance Standards for LTP	Current performance	Benchmarks	Recommended LOS	Rationale	LTP Committee Direction
12.0.2 Manage risk to potable water supply	12.0.2.1 Current LOS: Achieve the highest MoH water supply grade possible without treatment (for the City only) Current LOS performance: 'Ba' for all supply zones within the City (excluding the Northwest zone) 'Bb' for Lyttelton Harbour Basin supply 12.0.2.2 'Da' for the Northwest supply zone	Hamilton achieves Aa grading 'Watercare – 92% of customers receive Aa' Graded water – 8% of customers on the nine ungraded non-metropolitan plant supplies Wellington Area – full compliance with NZDWS Metropolitan supplies meet Aa grade	12.0.2.1 Maintain 'Ba' grading for all City supplies, excluding the Northwest supply zone 12.0.2.2 Move 'Da' to 'Ba' grading for the Northwest supply zone by December 2015	Water grading system is a national potable water supply grading system to explain the potential risks to potable water supplies at both the source (capital letter in grading system – i.e. where the water comes from – rivers, lakes, aquifers etc) and through the reticulation system (2nd small letter in grading). Ba is the highest grading the urban supply can achieve without treatment of some kind. The population size of Christchurch means that a Ba grading is a requirement under the Health Drinking Water Amendment Act 2007. Improvements to the northwest zone to improve the risk grading from "D" to "B", or higher, requires a combination of new deeper wells to be drilled and UV treatment of the pumped water at certain pump stations. This Capital Work is currently in progress.	***Accepted***
	12.0.2.3 All Council rural water supplies have a Uu grading (ungraded). Upgrading works have been completed on Pigeon Bay, Birdlings Flat and Duvauchelle treatment plants. These plants will be re-graded	Across NZ, of the 384 Water Supplies serving between 200 and 5000 people, 243 remain ungraded (64%), 92 graded E, 14 - D, 13 - B, and 18 are graded A. That is, less than 1% have a satisfactory grading on the source/treatment	12.0.2.3 Undertake improvements to achieve 'Cc', or better, risk grading from the Ministry of Health for all rural area water supplies by December 2014	There are seven Banks Peninsula water supplies that require attention to improve the quality of water supplied to customers. There is also a NZ DWS requirement for 'Cc' risk grading as a minimum for these supplies. Capital projects to upgrade Peninsula supplies to meet the 'Cc' grading, are programmed to be completed by December 2014.	***Accepted***

Customer

What business results must we deliver to our customers, to deliver on the outcomes?

Performance Standards for LTP

Performance Standards for LTP	Current performance	Benchmarks	Recommended LOS	Rationale	LTP Committee Direction
12.0.2 Manage risk to potable water supply (continued)	2009/10: 268 installed 2010/11: 90 installed 2011/12: 112 installed	Manukau Water: Installed around 360 backflow prevention devices in the past year Capacity manage Upper Hutt and survey 80 premises per year Whangarei has installed 100 high hazard devices to date Watercare has installed approx 1500 – this is on behalf of the amalgamated Auckland Council Wellington have installed 1600 to date NZ water supply authorities have very different methods of achieving BF protection – some have it as a Council asset and not a private responsibility	12.0.2.4 Install at least 100 backflow prevention devices (at owners cost) for highest risk premises each year	Contamination of the public water supply from commercial, industrial or public facilities is a risk that must be mitigated, as reported within PHRMP's. This level of service is enforceable under bylaws. In the period 2009-2012 all known high risk properties had backflow prevention fitted. This KPI is now measuring the medium risk properties.	***Accepted***

Customer

What business results must we deliver to our customers, to deliver on the outcomes?

Performance Standards for LTP

Performance Standards for LTP	Current performance	Benchmarks	Recommended LOS	Rationale	LTP Committee Direction
12.0.2 Manage risk to potable water supply (continued)	12.0.2.5 2009/10: 100% compliant within the City 2010/11: Testing is done in accordance with the Drinking Water Standards for New Zealand. All City supply zones fully comply with E. coli requirements 2011/12: 100% compliant within the City 12.0.2.6 2009/10: 67% of rural water supplies compliant 2010/11: 81% of rural water supplies compliant 2011/12: 57% of rural water supplies compliant	Watercare: Microbiological and chemical DWS criteria complied with Wellington Area target: Full compliance with DWS 100% microbiological compliance from 11 utilities of greater than 100,000 people - National Performance Report Urban Utilities Australia 2010-2011	12.0.2.5 Microbiological and health significant chemical water quality meets current NZ Drinking Water Standards within the City each year as assessed by Community and Public Health 12.0.2.6 Microbiological and health significant chemical water quality meets current NZ Drinking Water Standards for rural supplies each year as assessed by Community and Public Health	Legislation and public expectation requires that safe water is supplied at all times.	***Accepted***
	12.0.2.7 Customers satisfied with the water supply service 2009/10: 92% 2010/11: No Survey 2011/12: 85%	Hamilton target to achieve at least 79% satisfaction Dunedin target to achieve at least 80% satisfaction with pressure and 71% satisfaction for quality Watercare overall Customer Satisfaction 92% 2010-2011	12.0.2.7 At least 90% customers satisfied with the water supply service	Customer satisfaction surveys provide a good long-term measure of overall water supply service and quality.	***Accepted***

Customer

What business results must we deliver to our customers, to deliver on the outcomes?

Non- LTP Performance Standards

Non-LTP Performance Standards	Current performance	Benchmarks	Recommended LOS	Rationale	LTP Committee Direction
12.0.3 Monitor the effectiveness of the pipe renewal programme	12.0.3.1 2009/10: 16.5 2010/11: 21.6* 2011/12: 17.5 (excluding earthquake jobs) 12.0.3.2 2009/10: 81.5 2010/11: 114.1* 2011/12: 83 (excluding earthquake jobs)	Water main breaks range 13 – 46/100km median 27/100 km of water main (from 11 utilities of greater than 100,000 people National Performance Report Urban Utilities Australia 2010/11)	12.0.3.1 Monitor breaks / 100 km of water main per year: 2013/14 no more than 20 2014/15 no more than 20 2015/16 no more than 18 2016/17 no more than 17 12.0.3.2 Monitor breaks / 100 km submain per year: 2013/14 no more than 90 2014/15 no more than 90 2015/16 no more than 87 2016/17 no more than 82	***Key Business Driver*** Tracking the number of water main breaks is an effective and comparative measure of the pipe network condition. Targets modelled on UDS growth estimate data and allow for annual fluctuations. *Based on five months of data, July, August, November, December 2010, January 2011	***Accepted***
12.0.4 Maintain pumping efficiency in city's reticulation (excluding rural townships)	2009/10 - 0.33kwh/m^3 2010/11 - 0.38kwh/m^3 2011/12 - 0.41kwh/m^3		Electricity used on average / m^3 water pumped per year: 2013/14 less than 0.39kwh/m^3 2014/15 less than 0.38kwh/m^3	***Key Business Driver*** A measure of the efficiency of Council's water supply operations is also a key business driver of costs. Target allows for annual fluctuations. Reducing power costs reflects projected rebuild of damaged water infrastructure.	***Accepted***
12.0.5 Ensure consent compliance	2009/10 – zero infringement notices 2010/11 – zero infringement notices 2011/12 – zero infringement notices	No infringement notices served on Auckland Regional Council 2010/11	No major or persistent breaches of resource consents regarding the operation of the water supply network each year, as reported by Ecan or the Council	Major or persistent breaches of resource consent are determined by Ecan and reported to the Council.	***Accepted***