

19. DRAFT WATER SUPPLY STRATEGY

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PURPOSE OF REPORT

1. The purpose of this report is to seek the approval of Council for the release of the draft Water Supply Strategy for Christchurch 2008-38 for public consultation beginning November 2008. The draft strategy will be separately circulated prior to the meeting.

EXECUTIVE SUMMARY

2. Christchurch City Council provides drinking water to over 340,000 residents through a network of groundwater wells and surface water intakes, pumping stations, reservoirs, and related infrastructure including approximately 3000 km of piping. Approximately 55 million cubic metres of water is abstracted from the groundwater aquifers underlying Christchurch for the public water supply (including urban Christchurch and the Lyttelton Harbour Basin), along with approximately 1.4 million cubic metres abstracted from streams and wells for the public water supplies in Banks Peninsula.
3. Rules in the proposed Natural Resources Regional Plan indicate that an allocation limit will be set for the Christchurch Water Supply. This is expected to be in the order of 75 million cubic metres per year. An additional pressure exists in Banks Peninsula, where the availability of the major sources of public water supply tends to be lowest when demand is highest during the summer months.
4. During 2007 and 2008, the development of a Water Supply Strategy has been under way. The development of the draft strategy is based on an assessment of the current state and key challenges facing water supply planning. This has led to the development of a set of guiding principles, a strategic vision and key goals and objectives for a sustainable water supply.
5. The draft strategic vision for the water supply strategy is:
 - (a) Our public water supplies are valued and protected for us and future generations.
 - (b) We work together to provide safe, reliable water supplies that are managed sustainably.
6. The draft goals are:
 - (a) Our customers have clean, safe water.
 - (b) The sources of our water are protected from degradation.
 - (c) The Council's water supplies meet our customers' reasonable needs.
 - (d) Water is used efficiently and sustainably.
7. The purpose and key points of water supply for the Christchurch district were presented to and discussed at Council seminars on 22 April 2008 and 25 September 2008 and at a Community Board workshop on 8 September 2008. The draft strategy document was the focus of a Councillor workshop earlier this month.
8. In 2007 and 2008, preliminary discussions and consultations on key points of the Strategy were held with a number of stakeholders and community groups including Environment Canterbury, Canterbury Employers Chamber of Commerce, New Zealand Manufacturers and Exporters Association, Sustainable Otautahi Christchurch, Mahaanui Kurataiao Ltd, New Zealand Fire Service, Age Concern and Community and Public Health. Ideas, concerns and challenges from this preliminary consultation were incorporated into the Draft Strategy.

9. Key dates for the Water Supply Strategy are:

- (a) 27 November 2008 - the draft Water Supply Strategy for public consultation taken to Council for approval
- (b) December 2008 through early March 2009 - Public consultation
- (c) June 2009 - Council adoption of Water Supply Strategy

(N.B. Consultation on other Healthy Environment strategies has been rescheduled to reduce consultation load during this period.

FINANCIAL IMPLICATIONS

10. The 2008/09 Annual Plan and the LTCCP Activity Management Plan for Water Supply and Water Conservation provide only limited support for the implementation of this strategy. Depending on which of the future options identified in the draft strategy are adopted, there are likely to be additional capital and/or operational costs associated with the implementation of the final strategy. As part of adopting the final strategy a funded implementation plan will need to be also agreed. As significant elements of the strategy are already capable of being funded from within existing budgets, new initiatives can be “bled” in as part of the 2009 and subsequent LTCCP’s Savings from reduced energy, maintenance and other operational costs are possible, depending upon the options adopted. One of the key planks of the strategy is to extend the life of current water supply allocations. The success of this will be gained in significant reductions in cost towards the end of the timeframe by way of deferred capital infrastructure expenditure; see below.

The financial implications of not adopting the strategy and continuing with business as usual would be significant, particularly beyond 2030 due to the need to find new sources of water (see Figure 1). Implementation of the strategy would delay the need to find alternative water supplies for Christchurch, potentially until the beginning of the 22nd century. The cost of implementing the strategy, at an average of approximately 20 per cent above “business as usual” costs until around 2027, will significantly delay the need for new infrastructure to abstract, treat and transport water from alternative sources. It is expected that the approach taken in the Water Supply Strategy will provide overall savings of \$200M over the next 30 years i.e. 25 per cent cheaper than business as usual.

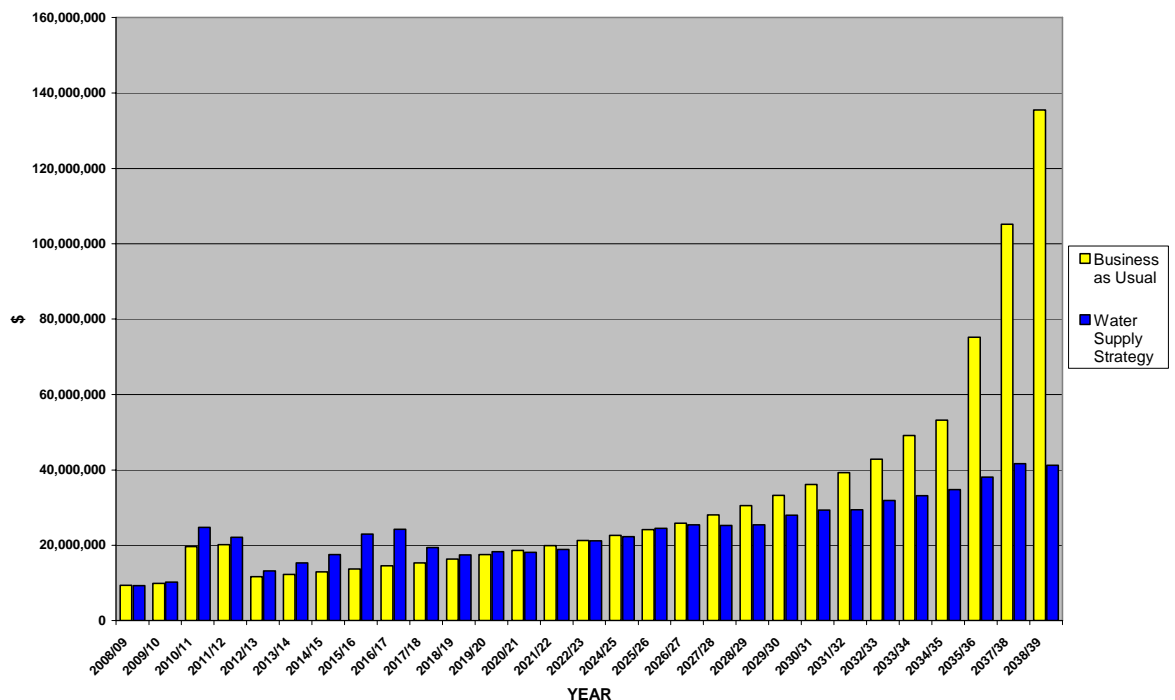


Figure 1. Strategic approach vs. business as usual

Do the Recommendations of this Report Align with 2006-16 LTCCP budgets?

11. Funding to support the development of the Water Supply Strategy aligns with the current LTCCP budget. However implementation of the strategy will require additional funding in the order of 20 per cent above business as usual, depending on the final mix of actions adopted.

LEGAL CONSIDERATIONS

12. The Local Government Act (LGA) 2002 requires that local authorities take a sustainable approach to managing the public water supply in a manner that promotes the four well-beings (social, environmental, economic and cultural). LGA 2002 Section 130 sets out the Council's obligation to maintain water services. Also the Resource Management Act 1991 has as its purpose to promote the sustainable management of natural and physical resources, including water.

Have you considered the legal implications of the issue under consideration?

13. As above.

ALIGNMENT WITH LTCCP AND ACTIVITY MANAGEMENT PLANS

14. Development of the Water Supply Strategy aligns with the current LTCCP and activity management plan budgets. The outcome of the development of the Water Supply Strategy may have an impact on Council activities and level of service.

Do the recommendations of this report support a level of service or project in the 2006-16 LTCCP?

15. As above.

ALIGNMENT WITH STRATEGIES

16. The recommendations align with other Council strategies and policies including the Greater Christchurch Urban Development Strategy, the Sustainability Policy, the Biodiversity and Surface Water Strategies.

Do the recommendations align with the Council's strategies?

17. As above.

CONSULTATION FULFILMENT

18. Consultation with key stakeholders has been undertaken over the last 12 to 18 months. Consultation with the community as a whole will be undertaken on the draft strategy, once approved by the Council. This consultation will target key stakeholders including business, community, environmental and government organisations. The consultation period will seek written comments and run from December 2008 through to early March 2009. This will be a non-statutory process and not a special consultation process. It is proposed that submissions will be considered by a Hearings Panel made up of Councillors.

STAFF RECOMMENDATION

It is recommended that:

- (a) The Council approve the release of the Draft Water Supply Strategy 2008-2038 for public consultation, beginning December 2008.
- (b) A Hearings Panel comprising Councillors (to be named) be formed to hear feedback on submissions to the draft Water Supply Strategy and that their recommendations be included in the final strategy presented to Council for adoption.

BACKGROUND ON DRAFT WATER SUPPLY STRATEGY

19. An internal staff team comprised of representatives from units across the Council has been involved developing a sustainable water supply strategy for the whole of the public water supply.
20. In August 2007 an external stakeholder workshop was held at which top level issues and options were identified.
21. Earlier this year the internal staff team completed a review of the current state of the public water supply. At the same time a brief study was completed by an external consultant to evaluate volumetric charging options for residential customers (commercial customers are already charged under a user-pays scheme).
22. In April 2008 a seminar was held for councillors at which the general state of the aquifer system in Canterbury, and the Christchurch aquifer serving as the public drinking water source in particular, was discussed. One of the key messages at that seminar is the fact that drinking water is not an unlimited resource, and under the Proposed Natural Resources Regional Plan, an annual abstraction limit for Christchurch's public water supply is likely. Rules in the proposed Natural Resources Regional Plan indicate that an allocation cap will be set for the Christchurch Water Supply. It is expected that this will be in the order of 75 million cubic metres per year. An additional pressure exists in Banks Peninsula, where the availability of the major sources of public water supply tends to be lowest when demand is highest during the summer months.
23. In September 2008 a workshop was held for key stakeholders, including representatives from Environment Canterbury, Canterbury Employers Chamber of Commerce, New Zealand Manufacturers and Exporters Association, Sustainable Otago Christchurch, Mahaanui Kurataiao Ltd, New Zealand Fire service, Age Concern, and Community and Public Health. The feedback from this workshop as well as the August 2007 stakeholder workshop, were integrated into an Issues and Options report prepared by the staff team.
24. On 25 September 2008 a seminar was held for Councillors to discuss the issues and options facing the sustainable management of the Christchurch public water supply, including the public water supplies in Banks Peninsula.
25. The draft Water Supply Strategy sets out the strategic direction for the Council's provision of water supply services and the stewardship of the sources of the public water supply. Through this strategy the Council is making a commitment to sustainably manage the public water supply now and into the future.
26. The draft Water Supply Strategy establishes the Council's vision for a sustainable water supply:
 - (a) Our public water supplies are valued and protected for us and future generations.
 - (b) We work together to provide safe, reliable water supplies that are managed sustainably.
27. To achieve this strategic vision, the draft Water Supply Strategy sets out four keys goals:
 - (a) Our customers have clean, safe water.
 - (b) The sources of our water are protected from degradation.
 - (c) The Council's water supplies meet our customers' reasonable needs.
 - (d) Water is used efficiently and sustainably.
28. Key issues to be addressed to implement the Water Supply Strategy are:
 - (a) Availability: Is the "bucket" big enough to service our needs now and in the future?
 - (b) Quality: How do we protect what we have?
 - (c) Demand: How can we make our water resources last into the future?
 - (d) Service, costs and regulation: How do we provide a reasonable level of service, value water appropriately and respond to a dynamic regulatory environment?

29. Current programmed operational activities which are already in progress are summarised below.

Activity	2008/09 Annual Plan (\$millions)
WaterWise public awareness campaign	\$0.13
Target Sustainability Programme (all activities; not limited to water efficiency advice)	\$0.40
Renewals and replacements of pumping station pipework, wells, etc (all activities)	\$1.46
Water treatment works renewals and replacements (proposed budget in Water Supply Asset Management Plan)	\$0.13
Water storage renewals and replacements	\$2.86
Water reticulation renewals and replacements	\$3.89
Water meters renewals and replacements	\$0.26
General water management renewals and replacements (.g., portable equipment & fittings) (proposed budget in Water Supply Asset Management Plan)	\$0.01

To fully implement the draft strategy would require a lift from currently identified funding in the order of \$1 million to \$10 million, per year until approximately 2027 plus or minus 30 per cent. However, it is expected that the approach taken in the Water Supply Strategy will provide overall savings of \$200M over the next 30 years i.e. 25 per cent cheaper than business as usual.

30. The draft strategy considers a number of options to address these issues, including:
- (a) Assessment of alternatives such as rainwater;
 - (b) A strong education component, having a focus on valuing water;
 - (c) Protecting the right for future water takes for public water supply;
 - (d) Better managing the existing water supply network (including pressure management);
 - (e) Considering a direct charge on the public water supply based on actual use (with a base allocation funded by rates and an excess use charge);
 - (e) Providing incentives for efficient use (e.g. subsidies for water-efficient devices, grants for rainwater tanks, rebates for use below a base allocation);
 - (f) Better practices at Council facilities (e.g., low-flow devices in City Housing stock, and Council facilities, drought-resistant plantings in public spaces; use of non-potable water where practicable and water re-use projects); and
 - (g) Controlling growth where water resources are already significantly at risk.
31. The following table summarises the recommended options considered in the draft strategy along with proposed time frames in which they would be implemented.

Option	Proposed time frame
Higher ranked options	
Pressure zone modelling to optimise equalised pressure management zones	2009/10
Infrastructure upgrades for new pressure management zones – Feasibility study/cost benefit analysis	2011/12 – 2012/13
Infrastructure upgrades for new pressure management zones – Capital programme	2013/14 onwards
Installation of water efficient devices in City Housing	2012/13
City Plan change to require rainwater system or rainwater/greywater combined system	2014/15
Valuing water campaign – research study	2009/10
Valuing water campaign	
Development & rollout (yr 1)	2011/12
Implementation (subsequent years)	2012/13 and onwards
Securing rights to additional water takes	2009/10 – 2010/11

Option	Proposed time frame
Waimakariri River development of new source 40 Ml/day (with treatment) OR 80 Ml/day (with treatment) OR Ellesmere well-field development	2013/14 – 2014/15 (securing this option) 2030/31 (infrastructure)
Water reuse as appropriate in new Council facilities or major refurbishments	2008/09 and onwards Project by project basis
Rainwater as new source – study for Council implementation	2012/13
Rainwater as new source – Council rainwater use programme	2014/15
Rainwater as new source – Banks Peninsula subsidy – cost-benefit study	2009/10
Rainwater as new source – Banks Peninsula subsidy	2013/14
Wastewater Reuse Demonstration Project - Capital programme	2018/19 – 2019/20
Acquire existing well rights as they become available	2015/16 onwards
Partnering and engagement with local and national governments regarding water-related standards, laws and regulations	2008/09 and onwards
North West Zone – mix of installation of UV disinfection systems and replacement with deeper wells (some locations in NW zone)	2012/2015
Medium ranked options	
Benchmarking exercise to determine target economic level of loss	2009/10
Enhanced water loss reduction programme (if benchmarked economic level of loss less than current level of loss)	2011/12 , if needed
Comprehensive economic and legal review of charging for water	2011/12 – 2012/13
Volumetric charging (may require separating shared connections) (Opex would be recovered through charging structure)	2017/18
Analysis of total system costs for water-efficient devices	2010/11
Water efficient devices rebate scheme	2012/13
Green Plumber	2012/13
Green Gardener	2012/13

32. Following approval of the Draft Water Supply Strategy by the Council, a process of general consultation will be undertaken. This process will encompass community and social organisations, environmental organisations, Government agencies, iwi, residents, business and commercial organisations, the New Zealand Fire Service, and other stakeholders.
33. It is proposed that consultation on the Draft Water Supply Strategy run from early December 2008 through to 6 March 2009. The public will be able to provide comment on feedback forms that will be made available at all Council service centres, libraries, and online. This will be a non-statutory process and not a special consultation process.
34. A Hearing Panel is proposed to hear feedback from those who provide written submissions received on the draft Water Supply Strategy. It is also proposed that the Panel's recommendations be included in the final strategy presented to Council for adoption.
35. It is intended that the Water Supply Strategy will be completed by mid-2009.