

Christchurch City Council
ATTACHMENTS UNDER SEPARATE COVER

Date: Thursday 8 February 2018
Time: 9.30am
Venue: Council Chambers, Civic Offices,
53 Hereford Street, Christchurch

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1. RECOMMENDATION TO COUNCIL

That the Council:

1. Receive the Chief Executive's Monthly Report.
2. Note that the Council requested the Chief Executive to undertake an overarching independent external review regarding the Below Ground Well Heads and Drinking Water Supply Status at the Council meeting on 25 January 2018.
3. Endorse the Objectives and Scope of the draft Terms of Reference of the Review contained in the Attachments Under Separate Cover document.

TERMS OF REFERENCE

BACKGROUND

1. Christchurch City Council owns and operates a large number of wells (also known as bores) across the city for the primary purpose of providing water to the city's residents. The Council is in a fortunate position that there is a high quality water source within the aquifers beneath the city, which provide a nearly pristine supply that has generally not required any further treatment. Very few cities in the world benefit from such a high quality water source.
2. Since the Canterbury earthquakes of 2010/11, Christchurch's water supply has had a 'provisionally secure' status. This has meant that the water supply complied with the Drinking Water Standards for New Zealand (DWSNZ) without the need for treatment.
3. The Havelock North Drinking Water Inquiry Stage 1 report was released on 10 May 2017 and described the likely causes of the contamination event as well as other failings that could have caused the contamination. These failings included the poor condition of the below ground well heads, the potential for flood waters to have entered the well head, and the potential for contamination via poorly sealed cables that penetrated the well heads.
4. In light of the Stage 1 Inquiry report, and rather than waiting for the final Stage 2 inquiry report, staff took steps to implement measures to improve the safety of Christchurch's water supply, including improving the security of Christchurch's well heads. In early June 2017, Citycare (the Council's contractor) were instructed to assess, review and recommend repairs to all of the Council's below ground well heads. At a meeting with Citycare Water staff on 26 June 2017, it was agreed that they should continue this work with urgency. The Drinking Water Assessor was notified of this work and made a site visit on 3 October 2017.
5. On 21 August 2017 Citycare Water issued its report, Christchurch City Council Below Ground Water Well Head Repair Recommendations, which summarised the typical defects that had been found through the investigations, and recommended a repair strategy with an estimated cost of \$840,000. It was expected that about half of the cost would be improvements (capital expenditure) and half would be maintenance (operational expenditure). Due to the urgency of the required work, approval was given for Citycare to proceed with the repairs.
6. On 22 August 2017, the annual compliance report was received from the Drinking Water Assessor confirming that the Christchurch water supply was compliant with the DWSNZ and commending the Council on having full bacterial compliance for all distribution zones.
7. The Three Waters & Waste Unit's 11 October 2017 report to the ITE Committee included the compliance report from the Drinking Water Assessor. It also included a brief summary of the work being undertaken to improve well heads as a result of the City Care report, and a comment

in the financial section that an additional \$200,000 was being spent on essential maintenance and improvements to well heads.

8. The Stage 2 report from the Havelock North Drinking Water Inquiry was released on 6 December 2017. It was highly critical of the Ministry of Health particularly in the area of enforcement of the DWSNZ. There has not, as yet, been any Government response to the Stage 2 report.
9. A relevant recommendation from the Inquiry's Stage 2 report was that "[321] The Ministry, via the [Drinking Water Assessors] and Medical Officers of Health, should take urgent steps to administer and enforce the existing regulatory regime, having regard to the findings and recommendations in this Stage 2 Report."
10. On 20 December 2017, the Director-General of Health issued a statement under section 69ZZZC of the Health Act 1956 to bring the responsibilities under the Act and the DWSNZ to the attention of drinking water suppliers. While this was not a directive to drinking water suppliers, the advice needed to be considered with urgency. The advice from the Director-General was:
 1. *Protection of drinking-water sources is of paramount importance and a founding principle of drinking-water safety;*
 2. *Every drinking-water supplier must contribute to the protection of drinking-water sources;*
 3. *The risk to the public is increased if drinking-water is untreated;*
 4. *To provide adequate protection to public health, suppliers providing drinking-water to untreated networked supplies should consider implementing appropriate and effective treatment without delay; and*
 5. *They should reconsider their reliance on secure bore water status as a means of providing safe drinking-water.*
11. The latest round of scheduled well head security assessments was conducted in November 2017 by Beca Ltd. A total of 25 wells at nine pump stations were assessed (which accounted for all but one which could not be accessed for safety reasons). The findings of these assessments, contained in the draft reports, found that none of the below ground well heads inspected met the security criteria. Draft reports on each of the pump stations were provided to Council staff by Beca on 14 December 2017, which described the issues with each of the wells. The reports also recommended immediate actions to comply with the security criteria, as well as actions that should be undertaken within 12 months and in the longer term.
12. The findings of these assessments were discussed at meetings attended by the Drinking Water Assessor, the Canterbury Medical Officer of Health, the authors of the Beca report and Council technical staff on 14 and 19 December 2017.
13. After receiving the Director-General of Health's Statement on 20 December 2017, senior Council staff met with the Drinking Water Assessor and the Canterbury Medical Officer of Health on 22 December to discuss its implications. At this meeting the Drinking Water Assessor indicated that in light of the draft reports on the latest round of well head security assessments, the security status for the Christchurch and Brooklands/Kainga water supplies would be changed from 'provisionally secure' to 'unsecure'. The letter confirming the change was received by staff later that afternoon, and stated that this meant the Council no longer complied with the DWSNZ.

14. Following further internal organisational discussions, the Council's Recess Committee met on 16 January 2018 and the Council received a paper at its 25 January 2018 public meeting. The Council resolved as follows (in full) including a request for this review:
15. That the Council:
 1. *Receive the information in the Below Ground Well Heads and Drinking Water Supply Status Update report.*
 2. *Approve and accelerate the programme of improving the security of below ground well heads at a cost of \$840,000 made up of \$630,000 capital expenditure and \$210,000 operating expenditure.*
 3. *Approve the installation of temporary chlorination for up to 12 months at all 56 pump station sites within the Christchurch City Water and Brooklands/Kainga water supplies at a capital cost of \$600,000 and an operating cost of \$20,000 per month, until the Drinking Water Assessor and Medical Officer of Health agree that temporary chlorination can cease.*
 4. *Request staff report to the Infrastructure Transport and Environment (ITE) Committee as follows, to be reported on to the Council including any recommendations:*
 - i. *as soon as possible with an update on the cost of undertaking further improvements to all below ground well heads recommended by Beca to comply with the latest round of well head security assessments.*
 - ii. *on monthly progress with implementing the well head improvement works.*
 - iii. *with the draft Water Safety Plan for approval when completed.*
 - iv. *with a review of the inspection regime for the monitoring and assessment of below ground well heads undertaken prior to June 2017 and since.*
 5. *Inform the community about the status of Christchurch's water supply and any decision on temporary chlorination. Coordinate with the Medical Officer of Health to ensure the community is suitably informed regarding the implications of any decision.*
 6. *Note that the capital budget required can be found from savings elsewhere in the Three Waters & Waste Unit's capital programme and that Council staff will work to prioritise expenditure in order to seek to offset the additional unbudgeted operating costs required to implement the recommendations.*
 7. *Resolves that long-term the Council wants to retain its unchlorinated drinking water system. Accordingly the Council opposes any Government imposed mandatory permanent chlorination.*
 8. *Notes resolution 7. deals with the Infrastructure Transport and Environment Committee recommendation to the Council meeting of 20 December 2017, which was left to lie on the table to be referred to the Council meeting of 22 February 2018.*
 9. ***Ask the Chief Executive to undertake an overarching independent external review of this matter so that the Council can provide assurance for the future of our unchlorinated water supply, and report back to the Council.***
16. **This review is sought by the Chief Executive to fulfil the Council's resolution in "9" above.**

SPONSOR

17. Karleen Edwards, Chief Executive

REVIEW OBJECTIVE AND SCOPE

18. In accordance with the Council's resolution, this review and its findings and recommendations are intended to assist the Council in providing assurance for the future for Christchurch's unchlorinated water supply (the "Prime Objective").
19. In particular, the review should provide conclusions and recommendations to assist in achieving the Prime Objective, including:
- An assessment of how the matter arose and was handled;
 - An assessment of existing practices, monitoring and assessment regimes, controls and reporting;
 - Any recommendations for improvements whether in procedure, practice, levels of service, reporting or otherwise (including any recommendations for contractors and contract management arrangements).
20. The review shall also include:
- A full detailed timeline of all relevant meetings, events and occurrences between August 2016 (being the date of the Havelock North water contamination incident) and 25 January 2018;
 - Reviewing and assessing:
 - Escalations of issues and risk up to Senior Managers, the Executive Leadership Team, the Chief Executive, and Council;
 - The formal reporting provided to Council and Council's Committees, including in particular, the Infrastructure, Transport and Environment Committee;
 - The appropriateness and quality of services provided by contractors to the Council, including Citycare Limited and third parties used to provide assessment of well heads for Council and the Drinking Water Assessor;
 - The responses and involvement of the Medical Officer of Health and the Drinking Water Assessor, with Council;
 - Consideration of the standards being applied to the monitoring and assessment of below ground well heads. This shall include any changes in the approach and application of those standards and assessments from the time of the Havelock North incident in August 2016 until 22 December 2017.

APPROACH

21. The review will be performed by undertaking the following:
- Interviews with relevant Council staff and contractors;
 - Review of relevant Council documentation, systems, procedures, minutes, reports, correspondence, memos, and any other supporting material;

- Review of assessments, reviews, reports and inspections made over the relevant period in relation to relevant well heads controls and testing and assessment regimes regime, in order to assess compliance with drinking water standards;
 - Review of relevant supplier/contractor arrangements, instructions, contract performance management arrangements and assessments, inspection assessments/reports, the standards that inspections were measured against, and correspondence associated with this;
 - Consideration of any other Quality Assurance systems, process and reporting used by the Council, and its suppliers and contractors;
 - Confirming findings/improvements through discussion with relevant management;
 - Operating transparently and on a “no-surprises” basis;
 - Other matters as agreed with the Chief Executive.
22. The reviewer will regularly meet with and update the Chief Executive, and discuss with the Chief Executive any matters requiring clarification in relation to approach, methodology, resourcing or otherwise.

REPORTING

23. Prior to providing a final report to the Chief Executive, the reviewer shall provide a draft report for the Chief Executive in order to seek and incorporate any relevant feedback and/or actions (planned or already underway).
24. The final report shall be provided to the Chief Executive

TIMING

25. To be confirmed with Reviewer by Chief Executive.