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Fraser

File: 311/04-001

Via email: fyi-request-3627-c097abba@requests.fyi.org.nz

Ref: AJH:KCP SHED: OIA: Fraser (J1-1.836)

27 April 2016

Dear Fraser

## RE: FURTHER INFORMATION REQUEST

In response to your further queries regarding seismic structural performance and in the order that you have requested the information.

- 1. Has a decision been made on whether to strengthen Trentham 1 reservoir?
- 2. If so will it be strengthened to SLS (grade C) level only or will a higher performance level be targeted?
- 3. What is the timeframe for this work to occur and has a budget been set aside/planned

In response to questions 1 - 3 there are no plans to strengthen Trentham No. 1 reservoir.

4. Has the construction of a new Trentham 1 reservoir (which would meet ULS requirement) been considered? If so what was the cost estimate for this compared to the est. \$430000 for remediation?

Trentham 1 reservoir is an old tank used solely to serve the prison. If the need arises to take Trentham No. 1 out of service then the zone including the prison can be supplied by Trentham No. 2

- 5. Has a timeframe for the strengthening of the other five grade D reservoirs been determined, if so what are the timeframes and has a budget been set aside/planned? (le as above)
  - Chatsworth and Sylvan Heights tank farms have been upgraded.
  - Plateau Road Reservoir upgrade is scheduled for 2017/18 in the Long Term Plan (LTP).
  - Pinehaven 2 is complete.
  - Maidstone Reservoir was reviewed and an emergency tank installed rather than a seismic upgrade. Depending on growth, replacement of the existing Maidstone reservoir is scheduled for 2026/27.
- 6. Is there an intention to strengthen the grade C reservoirs to a higher performance? If so what is the timeframe for this work? What is the timeframe for Trentham 2 in particular?

There is no intention to strengthen the grade C reservoirs at this stage but it will be considered as part of other resilience investigations.

7. Has the lowering of the Trentham 1 reservoir water level to 3.5m been undertaken to mitigate some risk in the interim? If not has it been considered/is it possible?

The water level has been lowered to 3.5m.

8. Have all the reservoirs Upper Hutt City Council owns/has responsibility for (presumably 16) been fitted with seismic shut off valves?

Yes, seismic shut off valves have been fitted.

9. Are the reservoir connections configured so that one can be isolated from the network, or would physical works be required to route around a reservoir to allow the remainder of the network or proportion of a network to function in the event of a failure? Eg. To compare it to electricity are they connected in series or connected in parallel.

Those reservoirs that balance on a shared zone eg CBD can be isolated to allow others to supply the network. Timberlea and Plateau can be interconnected and Pinehaven can feed other areas.

## In terms of Silverstream Bridge:

- 10. I note from the report in 2006-7 that it was expected due to capacity that the bridge would likely need to be modified or replaced within 20 years. Is there any update regards this? Given that this would result in replacement within approx. 10 years time has this work been included in the Long Term Plan and is there a plan in place regards financing the work?
- 11. If it is no longer planned to replace the bridge in this time frame for any reason, is there an intention/schedule to undertake an updated assessment of the seismic performance to compare it against the updated bridge manual/standard? Ie Presumably the bridge standard at the time had basis in NZS:4203 whereas now utilises NZS:1170.

In response to questions 10 and 11 - replacement of the Silverstream Bridge will be dictated by demand which we continuously monitor. The LTP currently schedules replacement for 2025. Inclusion in the adopted LTP indicates that the financial implications have been considered and allowed for.

## In terms of the Andrews/Birchville Bridge:

12. Can it be confirmed as per the recommendation in the inspection report that the flood debris was cleared from the central pier as recommended and that the scour resulting was confirmed as not exposing the piles of the original bridge pier - prior to the failure in October?

Scour was not caused by debris and detailed investigation indicates that there are no piles. The pier is 124 years old.

I believe that this satisfies your request for information, however if you have any further queries please contact me.

Yours faithfully

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