Folder [20231029 Island View stormwater pond alternate design Ian]

Response to TCDC proposal Island View

Ian Holyoake 29 October 2023

I do not like the proposal: The design is intended to be part of the the Stormwater assets of Whangamata resource consent 105667 but does not provide storm-water bnefit.

1. The Cirtex will not assist storm-water disposal as they will be below the water table when its raining so will serve no function ie wasted money
2. When the water table has dropped and soakage away is possible, the amount of soakage required will be much less meaning the area of Cirtex will be much lower - cost savings
3. The design does not allow for an overland flow path when the soakage device is overwhelmed.
4. The design has no means to remove the water in the detention pond - relying on soakaway as it does now will provide no benefit to community users.
5. The design will not stop the overland flow path - at the moment surface water runs down Island View Rd and into the carpark, past the toilets scouring the ground and into Hinnemoa Streets which has the end of the road raised so will flood properties along Hinnemoa and Tangaroa Rd

Alternative proposal:

The Rangi stormwater pipe needs to have:

1. A 'minor' soakage device to cater for small rainfall events
2. A detention basin to temporarily hold water for larger events
3. Pipes to Ocean to remove the detained water - when the water table is higsoakage is not working
4. An overland flow path for high rainfall >10%AEP and following high rainfall when we get repeated smaller events that keep the water table too high so soakage devices don't work.

The Pipi Rd storm-water pipe needs testing - never seen this flowing - thought is was just an old pipe - and it can be cut back to somewhere away from the Rangi system or for saving money uses as is to form the other end of the detention basin and same principles but soakage design to cater for catchment area.

WRC need to accept that storm-water design logic for 10%AEP events is the purpose of assets is to remove the water to a waterway ASAP without obstruction. That is irrespective of treatment. It must go. No council is required to treat 10%AEP events. What must happen is we need the rainwater to replenish the watertable for plant, wild-life and bird-life existence. BUT in very heavy rainfall events the watertable becomes overwhelmed so MUST be removed ASAP to waterways.

Because Whangamata is built on a sandbelt we have about 3m of height to high tide. When the water table raises to 1.5m below ground soakage devices do not function as intended with resulting surface ponding in depressions and basins.

Rangi and Pipi Roads are piped areas - so these should be going direct to waterways. BUT it would be good to have soakage for some of this surplus water to recharge the aquifer. This would be good to help plant, animal and bird life. BUT we cannot be expected to pay for, or provide large areas of land, or have restrictions on the use of land (Cirtex loading), or require high ongoing maintenance costs for extensive systems, or keep the same high risk of overwhelming/flooding by being required to install huge systems to cope for the one in 4 year events we are getting. Noting that the water table will rise anyway making this investment/asset pointless in the time we need it. It would be more realistic to design smaller more regular soakage devices along the pipe lines and having just the overflow in heavy rain events going to waterways. It is poor engineering to remove all water when recharging the aquifer in smaller rain events is key to plant, animal and bird life.

We had a major storm in 2017 (Cyclone Cook La Nina) then had 5 years of drought (El Nino) - many established trees died in the ensuing drought. We are now entering another El Nino which lasts a lot longer than La Nina - so we can use this time to plan for both.

010 Island View Reserve20230211_174026.jpg

Just been cleaned 11 February 2023

This was between Hale (10 January 2023) and Gabrielle (20 February 2023)

Before the clean out the bracken was so thick it was difficult to push through the walkway.

2

030 20230307_084459.jpg

Showing depth of lake 2 weeks after Gabrielle

3

060 20230624_103419.jpg

Depth of lake 24 June 2023 - had a major event during the night. Level about 400mm below far pipe invert

100 20231010_085711.jpg

No water 10 October 2023

Nothing exiting the pipes

170 002B4B07-8FB6-4156-9554-E6D29E7878CD.jpeg

Undated image

Likely around May as grass is returning around the edges.

Kids have carried timber to create a walkway.

Accept the lake must go.

No-one can police safety - even parents won't have realised kids have done this.

172 20231029_140544 _SC_.jpg

Pipe x playground - unknown connection

173 20231029_140621 _SC_.jpg

Pipe Rangi. Unknown invert LVL

Appears to b approximately 1m below ground level which is likely 1m below Rangi crown.

174 mp4 showing both pipes.jpg

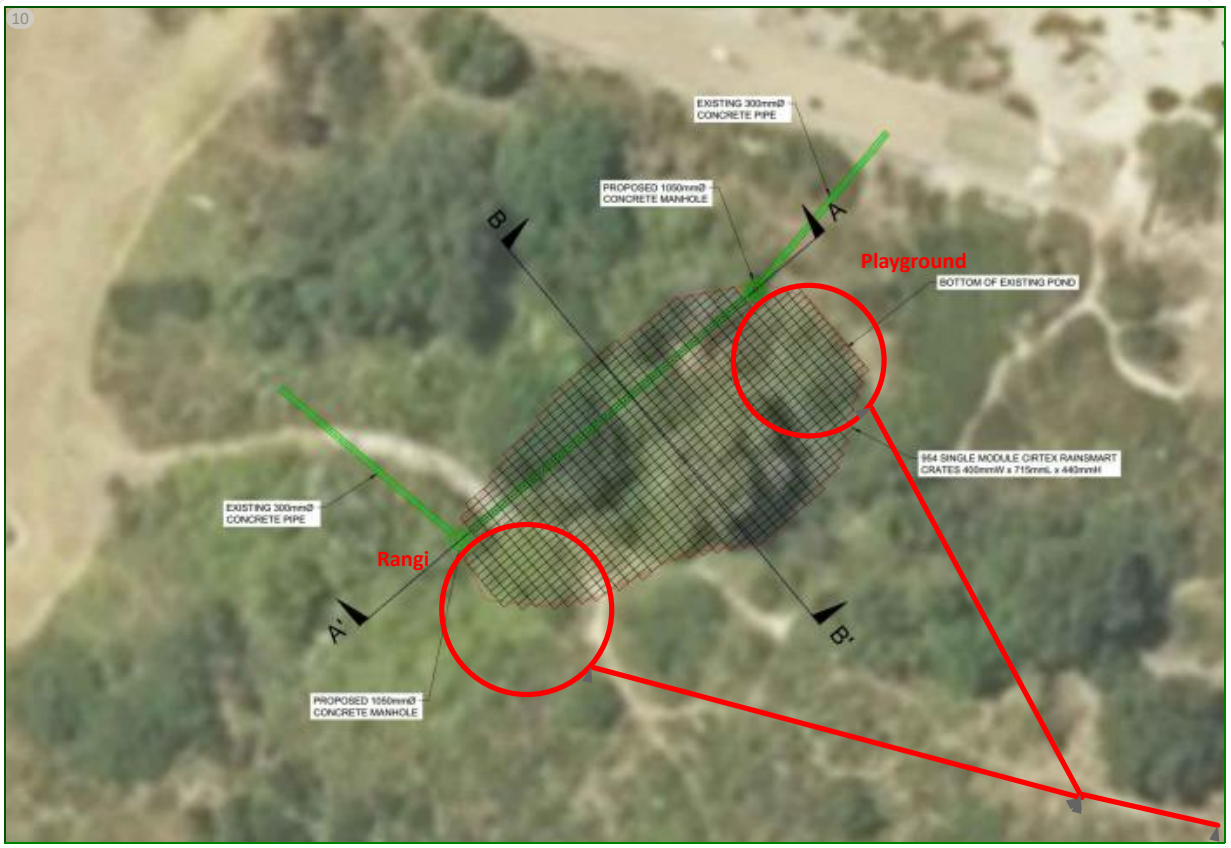
No water exiting either pipe.

More likely residual rainwater from earlier rain.

199 20231029_150257 _SC_.jpg

From 3 Waters Smart Maps looks like the playground entry is Pipi Rd and the other is an unmarked extension from Rangi Rd.

By useful to check that the Pipi one is clear as the carpark often gets flooded from Pipi and Island View Rd.



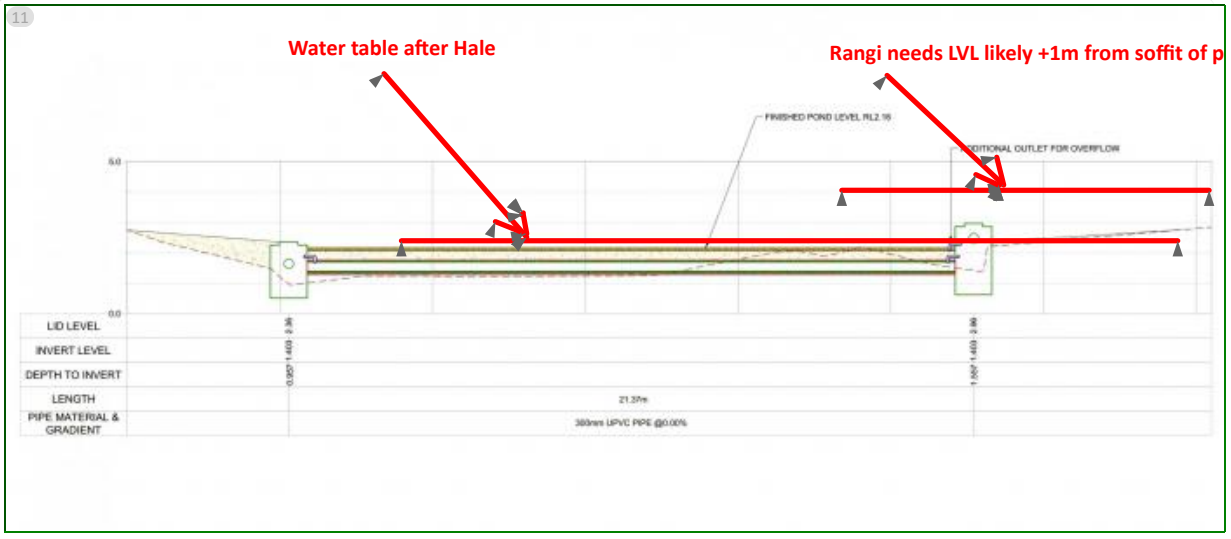
200 TCDC plan view Cirtex.jpg

I don't accept that the entire basin needs to be Cirtex. I agree with the manholes as the catchpit for solid particulates.

The Cirtex can be minor because soakage devices are NOT part of a 10%AEP. The soakage devices can be small to cater for minor rainfall events and then overflow into the basis as a short term holding pond and piped out once the depth got over say 100mm. The circles represent the pond sizes and the red lines pipes into the Ocean.

NOTE: I do not want pipes discharging into the Ocean BUT we have no choice because we cannot get all pipes to Otahu river. If we could that would be great BUT it still means discharge somewhere.

There can be no objection to 10%AEP being discharged directly into the Ocean or river especially in a small township like Whangamata and especially a road as little used by trucks as Rangi



201 TCDC cross section showing drainage.jpg

Photos show watertable in February after Hale to be about invert. Having Cirtex below this (the red line) is not useful for storm-water management as they will be flooded and working in reverse. They will provide NO soaking away so the purpose for having them is incorrect.

Soakaway is only possible once the water table has fallen and by then surface flooding has gone away.