

Mamaku OSET Community Meeting

2 – 4pm 28 June 2020

Mamaku School Hall

Mamaku

Chair: Shirley Trumper RLC Rural Community Board

BOPRC: Jill Owen, Marie Radford, Terry Long, Natalie Ridler, Ashleigh Grant, Sharlene Pardy

RLC: Greg Manzano, Rob Griffiths

Apologies: Lyall Thurston BOPRC, Ben Hollier RLC Rural Community Board

Community Members: See attached attendance register

Presentation

Trish Simonson Report:

Issue – poor soils, impermeable layer means conventional septic tank systems won't work.

BOPRC Report January 2020:

- Issues: - E.coli in some drains (2016 report)
- High levels of wastewater complaints
 - Older wastewater systems
 - Vacant land, potential for development, made more accessible with better transport links
 - Risk to the community
 - Uncertainty re reticulation

Preferred option - Interim Maintenance Zone – less onerous

Other options – Permanent Maintenance Zone

- Make OSET systems compliant
- Do nothing

Potential long term options:

1. Upgrade existing water systems
2. Community sewerage reticulation – stand alone or join to existing RLC systems.

Hard copies of the reports are available.

Shirley Trumper suggested the community set up a Mamaku community wastewater group to discuss and choose a preferred long term solution.

Questions

1. Investigations into water tested from open drains – did these show leakage from wastewater systems into drains? Did you check for boron contamination?

E-coli has been detected in the open drains. This e-coli could come from numerous sources e.g. farm animal run off, pest animals, wastewater. We have performed some trace testing for the source of the e.coli in the past, when specifically tested the source it was found to be human and likely from wastewater system due to the high ground water and impermeable rock layer).

Don't know about the boron. Normally looked at for drinking water. There is no correlation between e.coli in drains and drinking water. Mamaku town supplies are drawn from a bore that is over 200m deep (a 90 m bore is used as a backup/or when required). All Council supplied drinking water is treated to the drinking water standards and includes treatment of UV and chlorine treatment.

Drains flood down Umuroa Street. Flooding can overwhelm the system and contaminants can end up in the drains. This is largely linked to the shallow top layer of ignimbrite.

2. How long before we have to upgrade our systems again?

This would depend on the system chosen. If a property had an individual OSET (Aerated Wastewater Treatment System (AWTS)) it would require ongoing maintenance (by the owner) and is likely to last for 20-30 years easily. Once a community reticulated system is installed this is fully maintained/replaced/ upgraded as required by council and these ongoing costs are part of the targeted wastewater rate. Phil Thomas noted that he is a community rep working on the Rotomā and Rotoehu community groups and is also helping out with Tarawera. The community contributes to the capital costs and then subsidies can be applied for from BOPRC, RLC, MfE and possibly MoH as part of nutrient reduction. Then the ongoing cost is the same as for rubbish collection – paid for through rates. Phil suggested that the community should be proactive about developing a community scheme. The group needs to look at all the options and develop a tailored scheme. No single scheme works for all.

3. What are the costs going to be? What will the connection fee be and how much will ongoing maintenance cost?

Connection fee is a one off fee and the maintenance fee would be paid through a targeted rate at approximately \$500 per year. No subsidy will be available for people who go it alone and put in an AWTS. Community wide schemes attract funding.

4. Is all of Mamaku in the Rotorua catchment?

It's really difficult to say with 100% certainty; overall the solutions for Mamaku will impact Lake Rotorua.

5. We have one property with two houses on it, one with a septic tank the other with a new AWTS which cost us \$40,000. Do we have to connect both properties to reticulation if that is the chosen option? Is a combination/mixed system viable here? Some on OSET/Some on community reticulated system?

Generally a system for all needs to be agreed on – nothing is impossible but usually one or the other is decided upon by the community.

6. How will it affect the water meter at my gate?

That meter is for water supply, not wastewater.

7. How long will it be before the council decides that AWTS+NR no longer meets requirements or finds something better that works?

AWTS+NR represents a 'state of the art' wastewater system. There is no better option apart from reticulation. If the council was going to make a change at some point in the future it would consult with the community. The Lake Rotorua Action Plan has identified reticulation and upgrading of on-site wastewater systems to AWTS+NR as options to meet nutrient targets. Other nutrient options are from agriculture. No further nutrient reduction is required from on-site wastewater.

8. What is the expected life of an AWTS+NR?

The technology is not that new. There is a Jet plant at the Rangiuru abattoir that was installed in the 1960s and it continues to operate. That makes it at least 50 years old. There's no reason why systems installed today will not be working in 50 years. Because they include mechanical devices, there may be failures from time to time. These items will need repair or replacement at the owner's expense.

9. If the community decides on reticulation would that decision encourage development?

Yes. Phil Thomas added that in his experience it had opened up the possibility for development enabling smaller sections and more flexibility for development.

10. At the 2016 meeting we were told that reticulation was impossible with the capacity of the wastewater plant in Rotorua, how can we connect into a system already at capacity? When we have heavy rain the drains exceed capacity. Can we link Mamaku to Rotorua?

Yes it is possible. Mamaku could be connected to a local treatment plant or pumped to Ngongotāhā and into the main wastewater treatment plant in the city. The Rotorua plant is not failing, it will be upgraded to almost twice the existing capacity which allows for a 50 year planning horizon. Planning for Mamaku has been included in this increased capacity. Consent for the wastewater treatment plant is currently in the Environment Court.

11. Can we get regular, community-wide water quality monitoring data as is done in Paradise Valley?

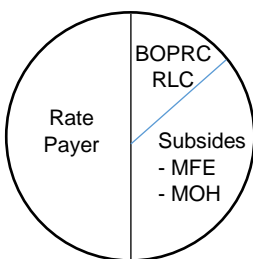
Terry Long noted that BOPRC are revisiting the monitoring programme around the region and a request will be put in for Mamaku. It can be tailored to see where wastewater is going. Shirley noted that the data will be made available.

12. What is the cost to the community of a community reticulated system?

There are two costs: A one off capital charge and a yearly 'Sewage Disposal Charge' on the rates bill. The one off capital charge per property = the overall cost of the system - Less any subsidies (e.g. BOPRC, RLC, MFE, MOH etc) and divided by the number of potential connections.

Once connected each property pays a yearly 'Sewage Disposal Charge' as a part of their rates bill. This charge is the same for every connected property irrelevant of where in the network they are connected (e.g. in town connections pay the same as lakes areas, Ngongotaha etc)

CAPITAL



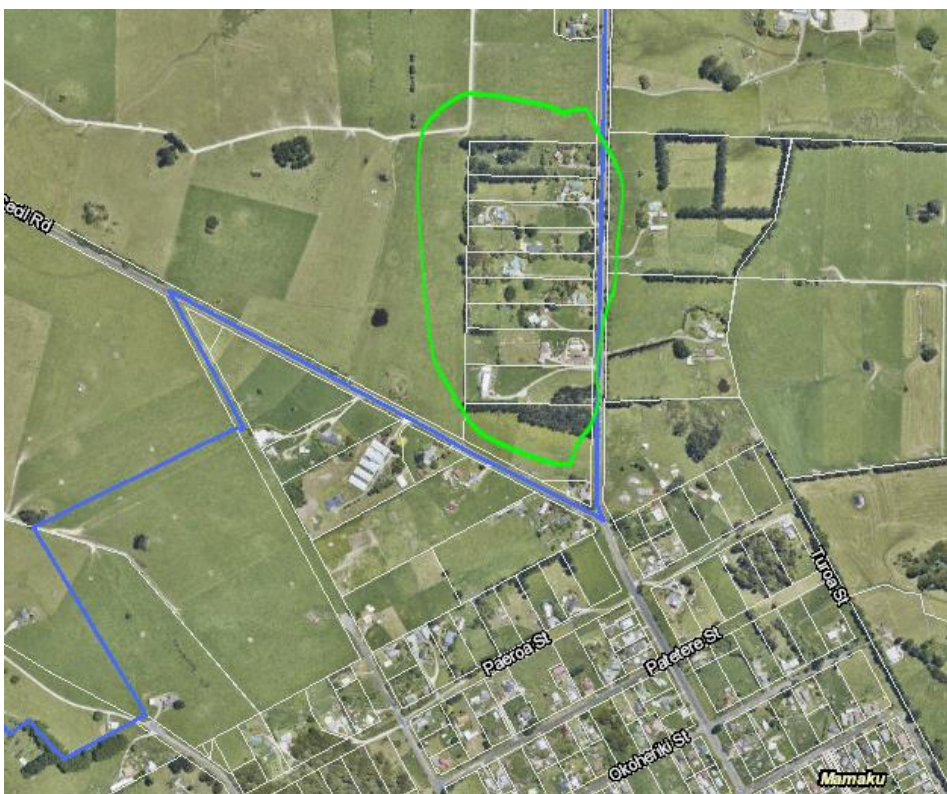
+ approx. \$500 per year

*Individual systems are likely to end up more expensive (no subsidies are available for individual systems) if a community sewerage reticulated system is significantly subsidised

13. Has sufficient capacity been provided at the Rotorua Wastewater Treatment Plant?

See answer to question 11. In terms of planning provision for Mamaku, the numbers have been based on 220 litres per person per day, 800 litres per household. Assume 1000 litres per day multiplied by 240 houses. The existing Rotorua wastewater treatment plan could handle up to 42,000 m3 per day. Once upgraded the plant will be able to handle 72,000 m3 per day.

14. Shirley stated that there were 279 inhabited properties in Mamaku and 100 vacant properties. A member of the community thought there was 330 inhabited properties so there is uncertainty as to actual numbers of inhabited properties. This will be confirmed.
15. Do we all have to connect to reticulation?
In general yes but the community group needs to work through the issues and decide on the best option for Mamaku. The more people who are in the scheme the lower the cost for everyone.
16. Can we drill holes into the ignimbrite to help with drainage?
The ignimbrite causes the wastewater to settle near the surface and there is not always enough surface layer (soil) to eliminate the bacteria. If holes were drilled into the ignimbrite this would send untreated wastewater down to the groundwater which then flows into the lake.
17. Can we redirect our greywater into the garden or is this a no-no?
Due to the water shortage this summer this is something that has certainly been thought of. We are currently looking at new rules to allow for this. It may be possible to divert some water from the shower or rinse water from the washing machine to irrigate garden and lawns.
18. Is there some middle ground between upgrading, reticulating and treating the wastewater in the community?
A wastewater treatment plant in Mamaku is a possibility if sufficient land can be found to develop it on. This option could be one of the potential longer term solutions that the community come up with.
19. What is the definition of the village? Can the map that is currently used to define Mamaku village be circulated?
Note that any map (ring around the Mamaku Community) for PC14 maintenance zone rules could be different to those who may want to be connected to a community system if this is the long term solution chosen by the community. If people outside of the PC14 map wanted to be connected and pay it could be wider (e.g. thinking of the cluster of houses up Maaeroa Road). For the houses on Maaeroa Road refer to the map below:



The blue line represents the regional boundary. The houses in the green circle are in the Waikato region but they are still in the Rotorua District. RLC could decide to allow them to connect.

20. Is there data on greywater, aerated systems from other communities?

For an AWTS +NR there are lower levels of nutrients spread out over a wide area and taken up by plants. A bigger space is needed. Toi Te Ora Public Health recommends as much separation as possible from wastewater.

21. What is the extra power cost to run an AWTS?

Approx. \$1/day power is required to run pumps and blowers.

22. Do we have to go through maintaining our current systems in the interim until a new system is decided?

Yes. It is expected that it will take the community longer to decide on a preferred long term solution than the time BOPRC has to develop PC 14 rules. Until such time as a decision on a long term solution is made, PC 14 proposes Mamaku is a Maintenance Zone. This rule will provide for a long term solution that the community decides upon, noting that the process to getting to the long term solution will take time.

As investigations have identified issues with current OSET systems in Mamaku a Maintenance Zone is the best option for PC 14. It will ensure systems are working well and will minimise the risk of OSET system discharges to the environment, protecting people's health. Septic tanks must be pumped out and inspected once PC 14 is operative and from then on every 3-6 years. The community could look at arranging bulk pump out and inspections with one company while they are in the area to reduce costs.

PC 14 Maintenance Zone rules also provide Interim Maintenance Zone rules for communities where reticulation (and the required funding) has been committed to by the territorial authority in its Long Term Plan. Interim Maintenance Zones provide less onerous rules.

23. Would a stormwater drain upgrade help meanwhile?

Storm water drains primary function is to clear the land of water to avoid flooding. If council administered drains have issues clearing water then we appreciate these being reported. While current best practise for storm water drains is to work towards improving water quality by better removing rubbish and particulars. It is unlikely that any upgrade of drains would be able to improve the water quality when it comes to the effects of a nearby failing OSET system