

Mapua/Ruby Bay wastewater overflows

1 message

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Dear Jan,

Further to your presentation to the Environment and Regulation Committee on 4th May, I have been asked to reply to the recommendations you made to the Committee, which were as follows:

1. Establish an agreed and affordable performance target
2. Provide reliable network models and undertake performance assessments using best practice
3. Justify and scope improvement works based on this
4. Put consent in place before transfer to new water entity for all networks
5. Allow for all of the above in the LTP

1. We already have mandatory measures, also reflected in the levels of service in our Activity Management Plans, which are monitored and reported to Council annually through the Annual Report (refer **Attachment 1** – Wastewater Annual Report 2022).

In addition, for the past eight years we have participated in the annual National Performance Review, undertaken by Water New Zealand, where we are able to compare our service level performance against most New Zealand local authorities (refer **Attachment 2** – Water NZ NPR Wastewater Overflows and I/I).

2. We only develop network models on demand for upgrade works or specific growth and development investigations. It is too costly to build and maintain models for all our wastewater networks. We do however have "backbone" models of our critical networks to assess capacity when major developments are proposed. We do not have the resources to operate and keep models up to date, and using consultants to do so would be an excessive cost.

There are, however, many other methods of monitoring performance of wastewater networks, and we have budgets for this work. We have an annual budget of \$100k for CCTV inspections and another of \$100k for Inflow/Infiltration investigations and mitigation measures, in addition to a reactive maintenance budget to undertake remedial work and repairs.

We have manhole sensors in several of our key catchments to monitor surcharging of manholes and we monitor pump station performance during and following rainfall events. Our typical design for wastewater networks is for a peak flow of six times the average dry weather flow and many of our at-risk pump stations have between six- and 10- hours storage depending on the location and risk to water bodies.

Where the design criteria is exceeded and overflows occur we investigate those catchments further to understand the cause behind the excessive flows. We cannot accommodate rainfall events in excess of our design limits in our networks, so overflows are inevitable, especially with the extreme events we have recently experienced. Using a combination of visual inspections, dye testing (we very seldom use smoke testing nowadays), overflow reports, CCTV and DTS (Distributed Temperature Sensing) we are able to identify both inflow and/or infiltration and determine the likely cause of the fault; whether illegal connections, cross connections, overland flow into manholes or gully traps, failed private laterals, failed pipes or joints, failed manholes, damaged manhole lids, swimming pool discharges, etc and undertake repairs.

Appropriate practice is maybe a better objective to aim for rather than best practice, which is often unaffordable to most communities.

I would suggest our practices are better than most around the country and we have a very good level of service, but we do experience I/I issues in low lying areas with high groundwater tables. Although we may not achieve best practice, our wastewater rates are currently the fifth highest in the country, according to the Water NZ NPR. What would the community think if we were to raise rates to meet the best practices requested by MDCA? Would they be prepared to pay significantly higher targeted rates for Mapua/Ruby Bay, bearing in mind that this would not only be for wastewater but for stormwater rates as well, as you cannot upgrade one without the other to manage the risk of overflows resulting from storm events.

Since we obtained a global discharge consent for stormwater, we have a clearer idea of what we need to target and we are now in the process of developing catchment management plans and catchment monitoring plans for each of our 15

Urban Drainage Areas (UDA), followed by renewals and upgrades of the infrastructure to control stormwater and restrict I/I of stormwater into the wastewater networks leading to overflows. To date, we have developed a catchment management plan for Richmond, and we are in the process developing a monitoring plan. We will target the Motueka UDA next, and then proceed to prioritise other UDAs.

3. We scope and justify improvement works through the Activity Management Plans, based on the data collected, as described above. There is still no guarantee that we will get funding to undertake these works.

Typically, every proposed Annual Plan and Long-Term Plan has a request for increased funding to undertake such works, far in excess of what would result in a reasonable rates increase and hence budgets are cut and work is not undertaken.

4. We cannot get a consent for what is not permitted. The Tasman Resource Management Plan would need to be updated, which is already being progressed.

5. It is highly unlikely that the above requests, in particular item 2, would be affordable for the next LTP.

Regards

Mike

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2 attachments

Water NZ NPR Wastewater Overflows and II.docx
1166K

WW compliance from annual report June 22.pdf
452K