

Background

1. There are approximately 50,000 private on-site wastewater systems in Auckland.
2. Water quality monitoring at numerous locations downstream of catchments that have private on-site wastewater systems has identified a) levels of faecal contamination consistently above those recommended for swimming under national guidance and standards, and b) confirmed that this faecal contamination includes human sources.
3. These locations include beaches at Armour Bay and Fosters Bay in northern Manukau Harbour, lagoons at Piha, North Piha, Karekare, Bethells (Te Henga) and Little Oneroa, and streams in urban areas of Waiheke. Many of these locations have signage warning against swimming and the collection of shellfish.
4. In addition, it is anticipated that the extent of this issue is considerably greater than is reflected in the current water quality monitoring. This is due to many coastal and freshwater areas that could be impacted from these devices not being regularly monitored. Potential hotspots include Muriwai, Whenuapai, Leigh, Whangateau, Orere Point, Mahurangi, Great Barrier, and Clevedon.
5. Figure 1 present the results of a risk assessment completed in 2017, which provides a heat map of areas where on-site wastewater systems could be impacting water quality. Factors used in this risk assessment included the age of the property, the site conditions of the systems (slope, soil type), the lot size, and the proximity of watercourses.
6. The 2017 risk assessment does not account for how well the systems have been maintained, as this information is not available on a region-wide basis.
5. Groundwater supplies may also be at risk from on-site wastewater discharges, however as little information is available on the treatment of drinking water from private water takes the extent of this risk is not known.
6. Three proactive compliance schemes for on-site wastewater systems are currently in place in Auckland: the council managed septic tank pump out scheme in the former Waitakere City Council area, the Waiheke Bylaw, and systems with resource discharge consents.
7. These three schemes cover approximately 10,000 properties, representing approximately 20% of the region's on-site wastewater systems, meaning 80% of these systems have no regulatory oversight apart reactive compliance when they cause nuisance or a public health risk.
8. In addition, as the current pumpout scheme and Waiheke Bylaw only cover septic tanks, and not the more advanced on-site systems, water quality issues are still occurring in these areas.
9. The Auckland Unitary Plan places requirements on all owners of on-site wastewater systems to maintain their devices. However compliance with these requirements is not being actively checked by council as they fall under the "permitted activity" activities of the plan.
10. It is therefore recommended that a region-wide proactive compliance scheme be implemented by council that covers all on-site wastewater systems.

11. Similar schemes overseas have demonstrated water quality improvements.
12. The Auckland Regional Public Health Service supports this recommendation.
13. The proposed water quality targeted rate would fund this scheme.

Discussion

- The proposed compliance scheme will be a major step change in improving water quality across the region.
- There are however a number of risks that will need to be carefully managed in the roll out of scheme. These include:
 - **Costs for maintaining on-site wastewater systems could be too high for households in financial hardship.** While the maintenance of on-site wastewater systems is required under the Auckland Unitary Plan, this is not currently being actively checked. Requiring owners to provide maintenance records will result in increased costs to those who have not been regularly maintaining their tanks, which may be difficult for families in financial hardship.
 - **Maintenance contractors may increase prices due to the higher demand of their services.** The scheme will result in an increased demand of maintenance contractor services. If contractors are not geared up for this demand, or want to take financial advantage of this requirement, prices for the maintenance of on-site systems may rise.
 - **Water quality improvements are not guaranteed.** Given the success of similar schemes overseas, it is anticipated that water quality will improve. However there are a number of other factors that could still impact water quality. Faecal contamination could continue to come from other sources such as stock and birds. In addition, many on-site wastewater systems are old and may not be correctly designed for their locations as they were installed before 2004, when improved design standards were put in place. They therefore may still overflow and discharge wastewater regardless of how well they are maintained, in particular in areas with poor soil and steep slopes.
 - **Changes to the Auckland Unitary Plan will be required.** These changes include referencing an updated technical guidance document, GD 06, which once finalised, will supersede the 2004 guidance document that is currently referenced in Auckland Unitary Plan (Auckland Regional Council Technical Publication No. 58 (TP 58), On-site Wastewater Systems: Design and Management Manual). Minor changes are also required to clarify what information is required for maintenance checks and how this is to be provided to council.
- To manage these risks, the following measures are proposed:
 - **Staged roll out of scheme:** It is proposed that the compliance scheme be rolled out over the region over the next 2 to 3 years. Areas with existing compliance schemes, namely the former Waitakere City Council and Waiheke, as well as areas where water quality issues have been confirmed to be from human sources, will be the first areas to come under this scheme, with the remaining areas rolled out afterwards. This should alleviate implementation pressures in terms of maintenance contractor resources, as well as allow time for plan changes to begin and educational campaigns to be rolled out (see below).

- **Educational and Amnesty Campaign:** Prior to the compliance checks, and any infringement notices being issued, educational and amnesty campaigns will be implemented, especially in areas that have had no previous compliance checks. The amnesty campaigns could include a rebate to home owners if they provide maintenance information before a certain date.
- **Formation of a Council On-site Wastewater Industry Working Group:** The scheme will rely heavily on good relationships with the on-site wastewater industry. The formation of working group enables collaboration on matters such as required plan changes, reasonable maintenance costs, contractor competency, and compliance information requirements.
- **Ongoing water quality monitoring:** Water quality monitoring, including testing for human sources, will be required to assess the success of the scheme, and to identify areas where the scheme may not be resulting in improvements.
- **Review of problematic catchments:** In locations where the scheme has been rolled out, but the water quality improvements have not been realised, then further assessment is required to determine whether the types and age of on-site wastewater systems are causing the problems. In such areas, initiatives to upgrade these systems would be investigated, and could include reticulation. This however would only occur in areas where systems are being maintained through the scheme, and high levels of human sources faecal contamination is still being detected.
- **Ongoing provision of Voluntary Targeted Rate scheme for on-site wastewater system upgrades:** A pilot for a Voluntary Targeted Rate scheme was rolled out for the West Coast and Little Oneroa catchments over the last 18 months. Its purpose was to help home owners with financial costs of upgrading on-site wastewater systems by allowing them to pay back a loan provided by council through their rates. This scheme is being reviewed in terms of effectiveness prior to further roll out.