

Onsite wastewater system monitoring - coverage area

Meeting: Council Briefing
Date of meeting: 07 July 2021
Reporting officer: Mark Schreurs, Policy Analyst & Shireen Munday, Policy Team Leader

Purpose | Ngā whāinga

To seek direction on whether Council wishes to propose any changes to the onsite wastewater system coverage area and the inspection cycle of the Wastewater Drainage Bylaw as part of the statutory review process.

Context | Horopaki

The Wastewater Drainage Bylaw 2016 (the Bylaw) is currently being reviewed as part of its statutory review requirements. The Bylaw includes a requirement that owners of onsite wastewater systems within the 'coverage area' in the Bylaw must be inspected and maintained every three years.

The purpose of this part of the Bylaw is to identify failing onsite wastewater systems and ensure these failings are remedied in a timely fashion to avoid negative impacts on the environment and public health. The current coverage area covers:

- a) all residentially zoned land, as identified in the Kaipara District Plan
- b) all land irrespective of zoning that is:
 - a. within 300m of the mean high water springs along the coast (east/west coasts)
 - b. within 300m of the mean high water springs of the coastal marine area (as defined in the Resource Management Act 1991) of a harbour (Mangawhai and Kaipara Harbours)
 - c. located within 300m of the margins of the Kai Iwi Lakes.

Discussion | Ngā kōrerorero

The review findings and suggested amendments were provided to Council at the April 2021 Council Briefing. That report suggested no changes to the existing coverage area are required. Following direction from Elected Members at that meeting to consider amendments to the coverage area, staff are now reporting back on this matter ahead of developing a final proposal for public consultation.

A brief overview of the current process and system to implement this part of the Bylaw is provided here to support discussion on the options.

Since the Bylaw was adopted in 2016, staff have developed, implemented, and further refined a system to give effect to the requirements of the Bylaw. With the system now in place, this is currently staffed by 1.5 full time equivalent staff members, who are responsible for:

- a) Contacting all owners of onsite wastewater systems in accordance with their reporting cycles to request the necessary documentation and all associated follow up work where no responses are received.
- b) Reviewing all responses to ensure the assessments have been carried out correctly and that the systems are functioning correctly.
- c) Following up with owners of failing systems and negotiating solutions and required outcomes, which includes site visits as required.
- d) Maintaining and logging the necessary records.
- e) Liaising with external contractors who provide the reports and inspections for property owners.

- f) Developing, maintaining, and monitoring the list of 'suitably qualified persons' to ensure any inspection, monitoring and maintenance work is carried out to a suitable and reliable standard.
- g) Taking enforcement action where necessary, including on-site visits, and working with Council enforcement staff as required.
- h) Undertaking audits of suitably qualified persons to ensure their reporting is accurate.

Options

The greater the coverage area, evidently the greater the level of environmental and human benefit. Equally, a greater coverage area will require more resources and capacity to undertake the necessary administration and implementation actions.

Three options are presented:

1. retain the present coverage area (status quo)
2. extend the coverage area to include within 300 metres of all rivers
3. extend the coverage area to capture the whole District.

Option 1: Retain the present coverage area

The present coverage area was designed to achieve the greatest benefit for the least cost. It focuses on the most vulnerable areas, being residentially zoned areas as these are where there is the highest concentration of people, and areas close to the coast/harbours where people swim and gather kaimoana. The extent of the current coverage area is shown in figure 1.

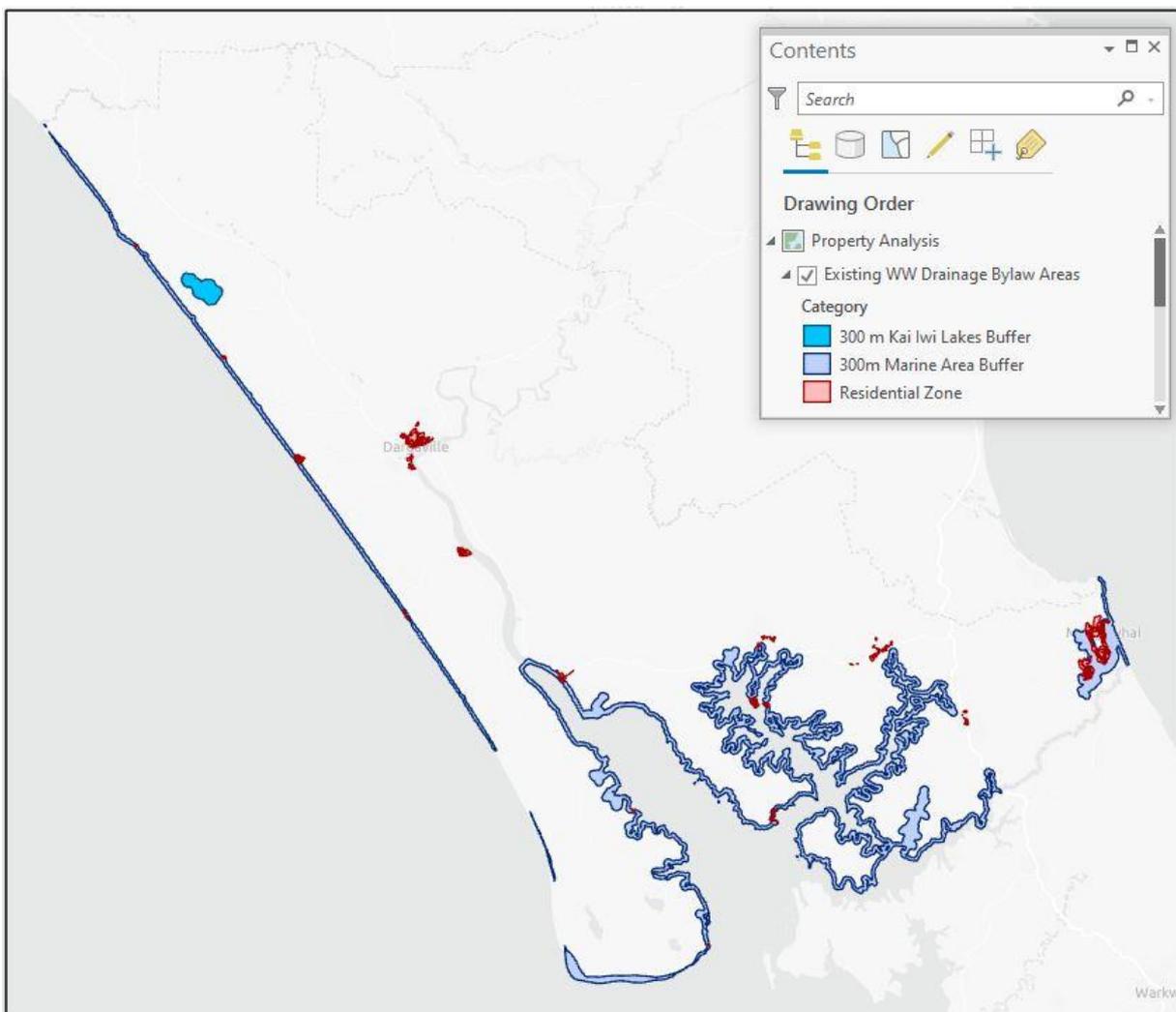


Figure 1: Current coverage area

Option 2: Extend the coverage area to include within 300 metres of all rivers

The area captured under this scenario is shown in figure 2, noting however that for the purposes of this option development a very simplistic tool was applied to define rivers, which was to rely on a Land Information New Zealand (LINZ) dataset of 'rivers'.

Should this be the preferred option, then further work would be required to determine whether it is possible to appropriately define a 'river' to allow a practical application of the coverage area in the Bylaw. This would include the need to define what is a river versus a wetland or an ephemeral flow path, as well as at what point each river begins in its catchment.

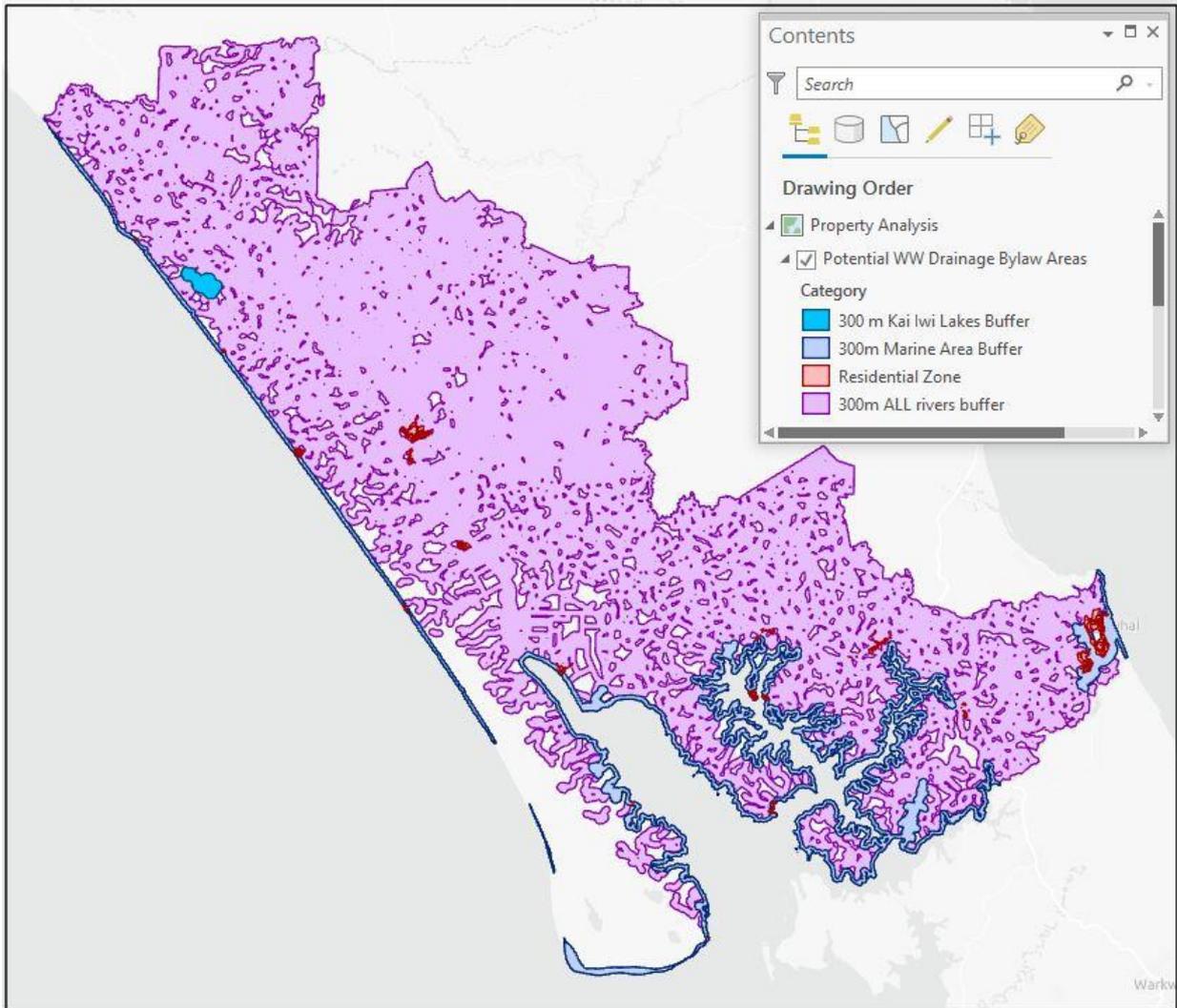


Figure 2: Coverage area including all areas within 300 metres of a river

Option 3: Extend the coverage area to capture the whole District

This option would be simpler to implement than Option B as it would cover every property in the District that is not connected to a reticulated wastewater system.

Option analysis

As indicated in the April 2021 Briefing item, staff consider extending the coverage area would require additional administrative and technical resources. The current coverage area was devised to provide the greatest benefit at the least cost.

Table 1 provides an overview of the number of properties captured by each of the options and the anticipated FTE resources required to manage these.

Table 1

Option	1	2	3
Number of properties affected	3827	10243	10617
FTE	1.5 (current)	3	3

As outlined, the properties affected by Option 2 would be subject to a more clearly articulated definition of a 'river' to allow for appropriate application of the Bylaw. Noting staff do not anticipate that the number of affected properties would reduce considerably following any such work.

Given the minor difference in affected properties between Option 2 and 3, and the additional work required to define the areas affected in Option 2 and ongoing administration requirements, should Council wish to propose extending the coverage area, then staff would recommend Option 3 over Option 2.

If Council decides to consult on extending the coverage area and confirm this after community consultation, then associated budget items will be presented to Council as part of the 2021/2022 Annual Plan development process.

Associated considerations

In undertaking the necessary work to develop the above options and implications, staff worked closely with the relevant staff who implement and monitor the coverage area. This included further research into the effectiveness of the Bylaw in terms of achieving the desired outcomes in the current coverage area and the associated three yearly inspection and maintenance cycle.

Water quality

Kaipara District Council is a partner in the Northland Regional Council (NRC) led Recreational Swimming Water Quality Programme (RSWQP) since 2009.

Since the programme began, a number of popular swimming sites throughout Kaipara have been highlighted either as having known poor water quality or the surrounding environment e.g. farming, could potentially contaminate streams or harbours.

In 2009, the original site selection was based on known poor water quality at that time. Where water quality results are consistency positive over time, NRC recommends these are removed and replaced with other sites not previously monitored. The criteria for adding sites is based on local knowledge gained from the three District Council officers participating in the programme.

The following Kaipara coastal sites were removed in recent years due to consistent positive testing results:

- Baylys Beach at Sea View Road
- Glinks Gully at Marine Drive
- Pahi at Jetty
- Tinopai at Below Puapua Creek
- Tinopai at Below Shops

In addition to taking water samples from swimming sites, samples are also taken from within the catchment to identify where levels of bacteria were at their highest and lowest. Catchment land-use around some of the problem sites is also mapped, so that potential sources of contamination can be identified, such as pastoral farming or septic tank soakage fields. In cases where septic tanks are identified as being a potential source of contamination, sanitary surveys are also undertaken.

While it is outside the scope of this project and report to provide a detailed scientific analysis of water quality in the District, the [2019-2020 summer RSWQP report](#) concludes that "generally coastal water quality in Northland is excellent". Noting that where testing shows reduced

water quality, this is can also be due to factors other than human waste contamination, such as stock access and wildfowl.

Regulatory staff consider that while the Bylaw is a valuable tool for Council to reduce negative environmental and human health impacts, there may also be a community perception that water quality in the coastal environment in the Kaipara District is more contaminated than it really is.

Inspection and maintenance cycle

The further research undertaken on the coverage area led to a more detailed review on the appropriate frequency for the inspection and maintenance cycle. Feedback from staff implementing the programme is that property owners regularly object to Council's requests because they consider the three-year review period overly onerous, both financially and regarding the functioning and capacity of their system. Tank capacity can vary significantly from system to system (often due to age), and this is further impacted by usage patterns, ranging from holiday homes to single inhabitants, to large family households.

Of the tanks that have been emptied since the Bylaw was implemented, on average the amount of material removed equated to approximately one quarter of the tank's capacity. All tanks would have not been emptied in the preceding three years at least, and in many cases for a much longer period.

Staff consider it would be appropriate for the Bylaw to allow some flexibility around the three year review period. This could be that subject to the outcome of the first inspection completed under the Bylaw, staff could apply a review period for between three and six years, depending on the system, tank capacity and usage patterns. This would retain Council's ability to deliver the required environmental and human health outcomes of the Bylaw, while allowing for a reduced financial impact on property owners, as well as avoiding unnecessary maintenance and inspection work.

Staff are therefore seeking direction on two matters for the proposed amendments to the Bylaw, which is whether and how to expand the coverage area for the onsite wastewater system inspection and maintenance regime and whether to allow Council staff to determine an appropriate inspection and maintenance period of between three and six years after the first inspection has been completed.

Next steps | E whaiake nei

The direction received from elected members at this briefing will inform the final proposed amendments to the Wastewater Drainage Bylaw. A Statement of Proposal is currently scheduled to be presented to the 28 July 2021 Council meeting for adoption.