

- Monitoring and maintenance standards will need to be determined and implemented to ensure the safe working of individual on-site wastewater treatment processes
- Resource Consents are required for installation of septic tanks, however there is no requirement for monitoring after this
- A close working relationship is required with GWRC staff to determine knowledge, actual effects and best solutions for the septic tank failure
- Regular water quality monitoring and compliance with relevant MfE and Public Health guidelines on freshwater quality

The individual household management of on-site systems has come under increasing scrutiny by agencies (MfE, MoH) concerned about public health. It is common to find that septic tanks and other on-site systems are poorly maintained and operated. There are often consequential problems with discharges on to land and waterways, i.e. the contamination of the water supply. The cause of failure is lack of information about, and absence of incentives for, owners to operate and maintain the systems.

Failure to maintain an on-site system can mean its 'life' is drastically reduced. The homeowner may save money in the short term, but the system may have to be replaced earlier than normal. More scrutiny is likely to force communities who are otherwise comfortable with their on-site systems to review the situation.

5.7 The Future and Risk Mitigation

Reticulated

Asset Planning

AMP's are continuously improving by carrying out various investigations and undertaking grassroots consultation to explore level of service options. AMP's also detail the likely future demands for service and how demands can be met or managed.

Liquid Waste Management Plan

Council has adopted a Liquid Waste Management Plan to comply with its obligations under the LGA 2002. This plan addresses wastewater and stormwater issues and impinges on water and solid waste issues.



Island Bay sewer upgrade

An investigation into the Interceptor is currently underway. Initial findings suggest the issue of I/I is not currently being addressed adequately and a more strategic approach, looking across the entire system is necessary, initially focusing on Berhampore, Newtown and the CBD.

Containment Policy

The options and costs regarding the frequency and extent of overflows from the wastewater system needs to be evaluated. Part of the associated consultation process will be to establish how many wet weather overflows the community consider acceptable, taking costs into consideration.

Trade Waste

Trade wastes are transported to the Treatment Plants and, for example, comprises approximately 10-12% of the total flow to Moa Point with approximately one-third being from the Taylor Preston abattoir.

The potential characteristics of trade waste, as opposed to domestic waste, are the materials that strip the oxygen out of the wastewater and produce unwanted gases, Biological Oxygen Demand (BOD)², suspended solids that block the system, metals, pesticides, insecticides, solvents, grease, oil, fat, etc. These all damage infrastructure, influence the biological treatment process at the treatment plants and present health risks for wastewater workers. Therefore, under Trade Waste resource consents, monitoring is required to ensure consent holders have effective operational control measures.

Biosolids

The sludge from the Moa Point and Western Treatment Plants is beneficially reused into compost under contract with Living Earth Limited. Living Earth are continuing to develop markets for this product.

² Biochemical oxygen demand – the quantity of oxygen used in the oxidation of organic matter.

Before the Living Earth contract expires in December 2008 future sludge disposal requires further investigation. As stated in Council's Solid Waste Management Plan 2003 and the Liquid Waste Plan the primary focus is on ensuring the stability and viability of long-term beneficial reuse solutions, rather than on short-term and a significant increase in waste diversion. Potential options for future biosolids use will need to be evaluated taking into account the above considerations but also risks, impact on the environment, Iwi concerns and costs.

Council will review the current bio solid disposal process in 2005 to evaluate options and implement the agreed preferred option.

Cultural Effects

Council acknowledges that the discharge of treated and untreated wastewater into water is of particular concern to Maori and consultation with iwi is required.

5.7.2 Non-reticulated

Septic Tank Issues

Pollution of Karori Stream from runoff upstream, residential activities, agriculture, wastewater discharge (septic tanks) and transport activities is an ongoing risk. Council will work with GWRC to identify recurring problems with water quality issues and reach solutions.

Under the LGA 2002 requirements, it is necessary to assess the environmental impacts and public health risks of continued use of on-site wastewater systems. This in turn requires assessment of the effectiveness and long-term sustainability of such systems in the non-reticulated communities. Council needs to determine whether there is a public health risk involved in continued on-site wastewater disposal, or whether it is advisable to provide a reticulated wastewater systems to rural communities to mitigate public health risk.

This would involve an assessment of the environmental and site management factors.

Regulation

The majority of the community may consider that some regulation of on-site systems is necessary. MfE have written guidelines for the safe and clean operation of septic tanks, these guidelines, in the next couple of years, maybe come a requirement.

Council may need to be more involved in regulating the monitoring and maintenance of these tanks.

Council could consider introducing mechanisms (such as a bylaw) that seeks to ensure that septic tanks and on-site wastewater disposal systems in use are installed and maintained in a manner that ensures effective operation of the system. This would require that sufficient detailed information be provided with a building consent application so that the Council can determine whether or not the disposal system will operate in a satisfactory manner. Property owners would be required to regularly maintain their septic tanks. The purpose of this is to remove the build-up of settled solids from the tank which can reduce the efficiency of the tank's operation.

Council could also make the necessary inspections and investigations to determine the location and condition of wastewater disposal systems and to determine whether the disposal system is operating correctly. In situations where Council believes the disposal system is unlikely to be working correctly Council may require the owner to have the septic tank pumped out or to have the necessary repairs made to the disposal system.

An option is for new subdivisions and or existing residents to choose a centralised system -a collective approach to maintaining systems i.e. a group of houses, all with septic tanks, get together and pay a third party to monitor and maintain these systems for a set price. Capital costs to upgrade and repair a particular septic tank would still be the responsibility of the individual landowner. This approach to operating and maintaining on-site systems would still need the householder to take some responsibility; i.e. making sure that toxic substances do not enter the system.

Such integration can:

- provide for the involvement of professional operation and maintenance servicing, which removes the direct responsibility from the homeowner
- protect the investment in the on-site system hardware and soil treatment capacity by maintaining long-life performance
- bring better environmental and public health results.

This physical technical system may not be necessary if the on-site systems are well managed.

The community and Council may want to clearly indicate the expected standard for any new people settling in the area. A simple way to do this is to require everyone to perform to a certain level. This two-pronged approach may reduce faulty on-site systems.