



Carterton District Council Wastewater Consent 2010

○ Community



○ Environment



○ Kaitiaki



Purpose

The purpose of this report is to provide information to interested parties on the issues that will influence the Carterton District Council's preferred long-term plan of discharging treated effluent to land.

The wastewater reticulation, treatment, and disposal/reuse is a large and technical topic: it is easy to lose track of aspects of the proposal or get confused by the scientific detail. Whilst the scientific information is an essential part of the process, it is also necessary to provide a translation or overview that is easier to understand.

This document attempts to set the scene and explain the background behind the choices made thus far, and the intentions for actions in the future.

The short-term issue is the application for resource consent currently lodged with Greater Wellington Regional Council, which forms a part of the bigger picture of the long-term goals described here.

For more specific and technical details on the consent application, this document should be read in conjunction with the assessment of environmental effects. This can be found on the

Council website www.cartertondc.co.nz under 'consultation', where there are also minutes from consultation meetings, and a community forum for the public to ask questions or place comments .



Introduction

Council feels that it is time for a paradigm shift in how wastewater is treated and utilised, and has expressed a desire to see the wastewater discharge from the town sewage treatment works removed from the Mangatarere stream.

This is to improve community, cultural and environmental wellbeing. This desire has been captured in Council's vision statement for the wastewater system:

“ The Carterton District Council’s long-term vision for the Dalefield Road Wastewater Treatment Plant is to discharge all treated effluent to land, except in extreme weather events, for the purpose of improving environmental and cultural outcomes. The Council’s aim is to achieve this in partnership with the wider community and in particular with landowners in the vicinity rather than the Council having to acquire land for the purpose. The rate of progress towards achieving this vision will be governed by the practical realities of achieving suitable arrangements and the ability of the Carterton community to pay for the improvements. ”



The vision entails significant physical works, technical & legal issues, and consultation with the community and affected parties.

Background

Fulfilment of the vision involves two distinct processes:

- **The regulatory consent** process by which Carterton District Council applies to Greater Wellington Regional Council for consent to operate the treatment works and discharge to land, water, and air. The consent application and assessment of environmental effects currently lodged with Greater Wellington Regional Council applies for a 5-year consent duration. The consent, if granted, would stipulate operating *conditions* within which Carterton District Council must operate the wastewater system.

The consent process can only be applied to proposed actions within the term of the consent, and those with *legal certainty*. There is therefore sometimes a miss-match between the short-term regulatory process and the long-term community goals.

- **The community process.** In order to achieve long-term goals, and the Council vision, it is important that the community is part of the overall process. Thus as Council members come and go in a three year cycle, and short-term consents expire, the long-term vision is carried on by the community.

Council is clear that the adversarial approach common in this type of process should be avoided and a more communicative and collective approach adopted.

Council is keenly aware that in order to achieve its vision both processes above need to be run in conjunction. With this aim, a consultation group was formed in January 2010 to aid Council in forming its decisions. Members of the consultation group are:

- Ngati Kahungunu
- Rangitane o Wairarapa
- Wairarapa Public Health
- Sustainable Wairarapa
- Department of Conservation
- Fish and Game

In summary, it was agreed that a continuing involvement between the Council and Consultation group is beneficial for both parties and for the community as a whole. It was also agreed that because of the long-term nature of Council's vision, a somewhat different approach is called for.

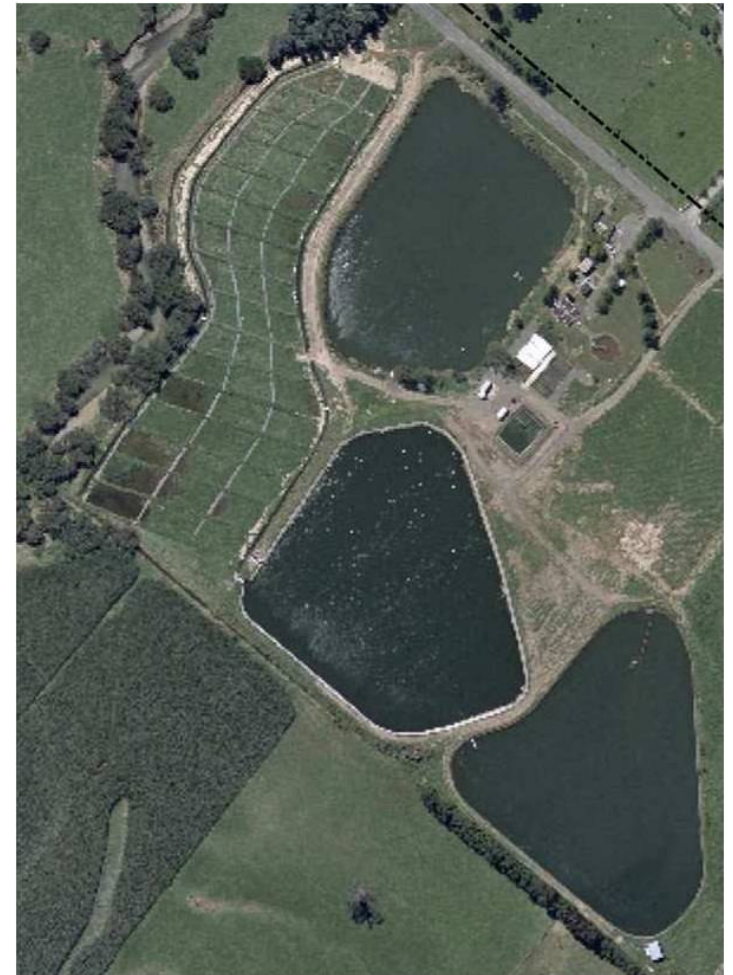
The group established that as well as the regulatory consent conditions, a separate set of **community milestones** should be established. In a cooperative manner, Council and the consultation group have established provisional community milestones. The group agreed that achievement of the community milestones should trigger a 'roll-over' of the consent for an additional five year period.

The group also agreed that adoption of this format (subject to agreement on consent conditions) would mean that members of the group would no longer require to be heard at a hearing.

This is an important point because Carterton, as a small rural town, has limited funding to address the wastewater issue. Any expense on legal fees and hearings that can be avoided can be spent actually addressing the issue and achieving the vision.

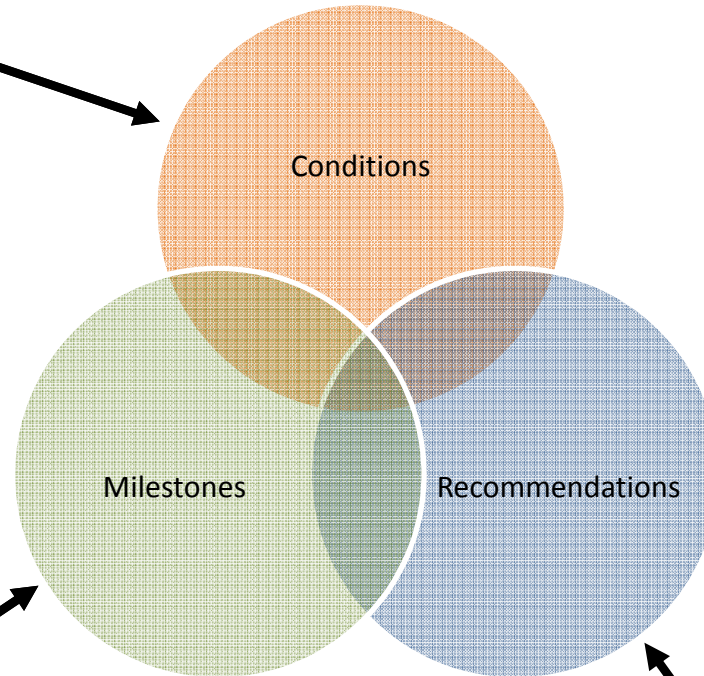
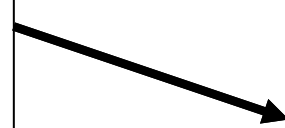
In addition to community milestones, the group will present **recommendations** to Council. These are associated with the broader, holistic aspects of the wastewater system.

One of the milestones requires that Council formally respond to these recommendations during the period of the consent.



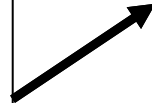
CONDITIONS

- Treatment plant upgrade
- Reporting on trade waste issues
- Reporting on infiltration remediation
- Effluent quality
- Monitoring regime



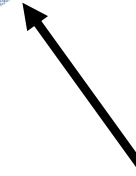
MILESTONES

Milestone	timeframe
10% reduction in discharge to water by end of consent term	Year 4
Irrigation scenario analysis & strategy	Year 3
Formal response from Council on recommendations	Year 2



RECOMMENDATIONS

- Health Impact Assessment
- Cultural health indexing
- Technology review
- Community reporting
- Communication of I/I remediation
- New build – rainwater storage
- Long-term reduction targets
- Community engagement



Holistic approach

With a long-term vision of this type, it is appropriate to consider a more holistic viewpoint rather than an end-of-pipe approach. In a holistic sense, it is important to realise that this is not just a Council issue, it is also a **community issue**. What you do as an inhabitant of Carterton effects the outcome: for example collecting rainwater for garden use, the use of water meters, using low phosphate washing powder, fencing of stock from streams etc all effect the downstream quality of our rivers. The less clean water we use and the less dirty water we produce, the better the quality of our rivers.

The detailed strategy for achieving the long-term vision has not been finalised yet, but it could well include aspects in which the community can make a real difference, be it reducing water use, joining in sustainable planting projects that assist the scheme, or even building a fence.

Council will be asking for your input along the way.

General Strategy

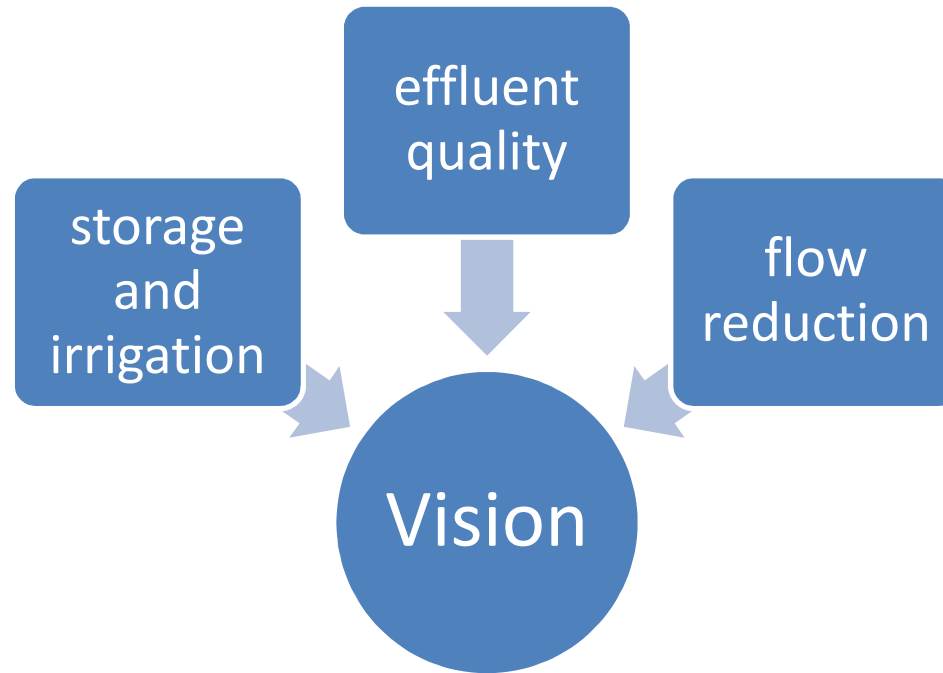
For detailed information on the proposed work, please see the assessment of environmental effects -

<http://cartertondc.co.nz/consultation.html>

There are several aspects that have guided past decisions that effect and sometimes limit the approach that Council can take in achieving its vision:

- **Discharge to water.** The unique conditions in the Mangatarere Stream are such that even advanced treatment processes may not be able to mitigate all the effects on the stream and ecosystem health. The upshot is that to mitigate environmental and cultural effects on the stream, removal of the discharge from the stream is the best option.
- **Infiltration.** Some of the sewer pipes through the town are old and leak groundwater into the pipe. This increases the flows to the treatment works, and therefore the cost of treatment and pumping.
- **Land.** Council does not own sufficient suitable land to irrigate the full yearly flow. Purchasing sufficient land of a suitable quality is most probably going to be too expensive. Council then also has to manage any land purchased; Council believes that farmers have greater expertise and capability in this area than Council, and that the best option is to provide treated water to farmers, who would then use it for irrigation.
- **Fonterra.** Irrigation of treated effluent (from human wastewater) is currently feasible, but in order to have milk accepted by Fonterra, stringent effluent quality criteria apply to any irrigated pasture. Dairy pasture is a significant potential irrigation area.

The general strategy has three main components that need to act together to achieve the vision:



Each component plays an integral part in achieving the long-term goal. The importance of each depends on the exact nature of the others, so it is not easy to immediately come up with one solution. For example, both the storage volume and the effluent quality are related to the volume of flows, so changing the target on infiltration reduction changes the other targets.

Effluent Quality

NZET Ltd has been working with Council over several years to find a method of improving effluent quality to meet the Fonterra quality standard. Works to date have improved effluent quality and discharged some of the effluent to land, notably removing discharges to the river during the summer months.

The assessment of environmental effects proposes that *microfiltration* be added to the existing treatment system. Microfiltration removes particles down to a very small size. This includes nearly all pathogens and many other contaminants; however it does not remove nutrients (e.g. Nitrogen and Phosphorus), which can be detrimental in streams but act as fertiliser on land.

The final system will therefore include primary sedimentation, oxidation ponds, wetlands, filtration and microfiltration, and UV as an option.

As part of the process, Carterton District Council has investigated discharging treated wastewater effluent to land in cooperation with farmers. A letter requesting expressions of interest was sent out to some 130 land owners throughout the district.

Storage and land irrigation

A number of responses were received over a wide geographical area. Each land parcel identified has unique properties in terms of soil, rainfall, depth to groundwater, distance from the treatment works, irrigation requirement, and crop.

To progress Council's stated vision of discharging to land, evaluation needs to be carried out of which parcel of land or which 'group' of land parcels should be used for irrigation. Council has to weigh up the cost versus the benefit of piping and pumping effluent to each 'group' of irrigation areas. One proposal mooted has been to select a close group for the short-term period (during this consent), with pipes to other, more distant areas as the next 'stage' of work.

It is envisaged that within a 5-year timeframe Council will have established agreements and infrastructure to remove an estimated 10% of the average annual wastewater discharge to river by a combination of fixing sewer pipes and discharging to land, hopefully more. For a greater percentage discharge to go onto land, storage of treated effluent is required.

Because irrigation is only needed during the summer months, flows outside of the irrigation season must be stored. The volumes are quite large (about 900,000m³), so it requires serious consideration. To this end, Council is investigating land for storing these flows. Council is currently looking at land it owns in the Tararua foothills, although investigations are at an early stage.

Council wishes to engage the community and achieve the best outcome possible for the community and the environment. Your views are important, but it is also important to hear other people's views, and to try and think what is best for the whole community, even if this means not getting exactly what you want.

This strategy was developed by Carterton District
Council in coordination with:

- Ngati Kahungunu ki Wairarapa
- Rangitane o Wairarapa
- Sustainable Wairarapa
- Department of Conservation
- Fish & Game
- Wairarapa District Health

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