



Otorohanga Community Board

AGENDA

8 August 2013

Members of the Otorohanga Community Board

Mr R Prescott (Chair)
Mrs EM Cowan (Deputy Chair)
Mrs AC Laws
Mr AG Ormsby
Mr PD Tindle
Mr DR Williams

Meeting Secretary: Mr CA Tutty (Governance Supervisor)

OTOROHANGA COMMUNITY BOARD

8 August 2013

Notice is hereby given that an ordinary meeting of the Otorohanga Community Board will be held in the Council Chambers, Maniapoto St, Otorohanga on Thursday 8 August 2013 commencing at 4.00pm.

2 August 2013

DC Clibbery
CHIEF EXECUTIVE

AGENDA

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PRESENT

IN ATTENDANCE

APOLOGIES

ITEMS TO BE CONSIDERED IN GENERAL BUSINESS

CONFIRMATION OF MINUTES – 13 JUNE 2013

REPORTS

Item 141 WASTEWATER POND AERATION IMPROVEMENTS

**To: Chairman & Members
 Otorohanga Community Board**

From: Engineering Manager

Date: 8 August 2013

Relevant Community Outcomes

- Ensure services and facilities meet the needs of the Community
 - Manage the natural and physical environment in a sustainable manner
-

Executive Summary

A recent assessment of the performance of the Otorohanga wastewater system has indicated that whilst the discharged effluent quality is generally satisfactory, the level of Nitrogen in the discharged effluent is not meeting requirements and remedial action is required.

Staff Recommendation

It is recommended that:

1. Capital expenditure of up to \$90,000 in the current financial year is approved in principle for the purpose of installing an enhanced aeration system in the Otorohanga wastewater treatment pond, with final approval subject to confirmation of costings through a detailed design exercise which is currently underway.
 2. Capital expenditure of up to \$5,000 in the current financial year is approved for the purpose of installing enhanced systems at the main sewerage pumping station in Otorohanga to more effectively monitor the discharge of septic waste.
 3. Additional ongoing operating, maintenance and administration costs of up to \$18,000 per year associated with items 1 and 2 above is approved in principle, subject to the proviso contained in item 1.
 4. Charges applicable to discharge of septic tank waste to the Otorohanga Wastewater system are revised to recover any additional capital and operating costs associated with items 1, 2 and 3 above, other than the cost that would be associated with the replacement of the existing failed aerator with another similar unit (estimated to be \$30,000) which will be a cost to the Otorohanga Community.
 5. Existing licences to discharge septic tank waste be terminated with immediate effect and new licences issued with revised conditions which include:
 - Cubic metre charges (based on tank capacity) increased as follows:
-

Waste from inside Otorohanga District – rises to \$30 /m³ (from \$13/m³)

Waste from outside Otorohanga District – rises to \$82/m³ (from \$65/m³)

- Limits set on the annual quantities of out of district waste that may be discharged

Report Discussion

As Members will be aware, in 2011/12 significant upgrading works were carried out to the Otorohanga Waste Water Treatment Plant (WWTP) as part of the process to obtain new Resource Consents for the operation of the plant.

These works were substantially completed in early 2012 but it was acknowledged that there would be some delay before the system stabilised and the results of the improvements, in terms of enhanced effluent quality became apparent.

A point has however now been reached where it is considered that an assessment of system performance can be made. The table below summarises performance against key consent consent conditions over the period from July 2012 to June 2013. In the table below 'Max' refers to 90th percentiles, not absolute maxima. 'Avg' denotes a median average.

Parameter	Condition Limit	Actual
Max Discharge Volume (m ³ /day)	<5000	2630
Average Discharge Volume (m ³ /day)	NA	1055
Avg Biochemical Oxygen Demand (g/m ³)	<25	14
Max Biochemical Oxygen Demand (g/m ³)	<60	20.6
Avg Suspended Solids (g/m ³)	<30	17.5
Max Suspended Solids (g/m ³)	<95	57.4
Avg Ammoniacal Nitrogen (g/m ³)	<15	20.4
Max (Ammoniacal Nitrogen (g/m ³)	<30	25.7
Avg Total Nitrogen Mass (Summer) (kg/day)	<20	20.5
Avg Total Nitrogen Mass (Winter) (kg/day)	<30	35.1
Avg Total Mass Phosphorus (Summer) (kg/day)	<4	4.1
Avg Total Mass Phosphorus (Winter) (kg/day)	<5	5.2
Avg E-Coli (summer) (cfu / 100ml)	<500	162
Max E-Coli (summer) (cfu / 100ml)	<1500	1069
Avg E-Coli (Winter) (cfu / 100ml)	<2500	405

Performance in respect of most parameters has been very good, well inside the limits set by the new resource consent. The levels of bacteria in the effluent has been greatly reduced, suggesting that the installation of the curtains installed within the pond have been very successful in substantially reducing the potential for wastewater to 'short circuit' the pond and leave without full treatment.

There is however, one effluent quality parameter that has failed to achieve the standard required by the Consent which is Nitrogen, and particularly Nitrogen in the form of ammonia (NH₃). The average recorded level of ammoniacal Nitrogen has been above 20 grams per cubic metre, whilst the consent sets a limit for the average of 15 grams, and the total mass of nitrogen has also been above limit values, particularly in the winter.

This is a significant performance deficiency, not just because the consent requirements are not being met now, but also because the consent has a staged reduction of the ammoniacal N limit (to 12 grams per cubic metre) effective from 2017.

Two factors are suspected to have contributed to the currently observed performance shortfall, these being:

1. Technical problems with one of the existing paddle aerators have resulted in this being unserviceable for significant periods, reducing the oxygenation of the pond.
2. The volumes of septic tank waste being discharged to the WWTP have been significantly (in the order of 50%) higher than that recorded prior to the upgrade, and upon which the upgrade design was based.

Both of these factors need to be addressed, but it is suspected that factor 2 would have had the greater impact. Problems with this aerator are not new, and the presence of the other aerator has ensured that there was at all times a degree of artificial aeration in addition to that naturally provided by air movement. In previous times the periodic non-function of one aerator has not been observed to have a substantial adverse effect on effluent quality.

Septic Waste Volumes

It does not seem likely that the recent increase in volumes of septic tank waste is a 'normal' variation.

Whilst there are a number of factors that might contribute to periodic changes in the volumes of septic waste discharged (such as variations in economic or development activity) it seems unlikely that the magnitude of such variations would approach the >50% increase that has been recently recorded.

It is therefore suspected that a further factor is at play, which is the large differentials in the changes for the receipt of septic tank waste that have developed between Otorohanga & Waitomo District Councils.

That the charges of Waitomo District Council (WDC) are substantially higher than Otorohanga District Council's is not new. A previous large increase of WDC charges occurred in 2006 and ODC revised its charges at that time to avoid potentially receiving large quantities of additional waste from the Waitomo District.

This revision took the form of instituting a new tier of charges for septic tank effluent originating from outside of the District. This charge was set at five times the applicable charge for waste sourced from within the Otorohanga District, and was only slightly less than that being charged by Waitomo.

The effectiveness of these higher 'out of District' charges was however dependant on the ability to identify the source of the waste. Whilst a system to do so was put in place, its implementation has not been effective and proper charging has continued to be dependent on the honesty of the Contractors who have been authorised to discharge, which cannot necessarily be assured. Subsequent further charge increases by WDC have also further reduced the ability of ODC's 'out of District' charge rate to deter the receipt of such material.

Most recently WDC's charging rate for septic waste has been increased to \$190 per cubic metre. This is almost three times ODC's \$65 per cubic metre charging rate for septic tank waste originating outside the district, and almost fifteen times higher than ODC's \$13 per cubic metre charge rate applicable to such waste originating inside the district.

This margin between WDC's charge and either of ODC's charges is now so large as to present a considerable temptation to a contractor to bring such waste into the district. Whilst the contractors may be aware that ODC does not want waste from outside of its district, there is nothing to stop them legitimately bringing such waste, and this could translate into their customers putting pressure on them to do so. The likelihood of such pressure being applied has probably been increased by the recent publicity in relation to this matter.

To a lesser degree there may also be an incentive for contractors to bring waste from some areas of the Waipa District to Otorohanga. It is understood that currently only the Cambridge

wastewater plant accepts septic waste in the Waipa District, and hence a property in the south west of the Waipa District may be 30km closer to Otorohanga than Cambridge, offering the contractor a significant saving in haulage costs.

The fact that the in-district charging rate is the lowest in the region, and that waste can be dumped at Otorohanga over quite extended daily hours (6.00am to 10.00pm) without direct monitoring by Council staff is also likely to make its use attractive to contractors.

It is also possible that there has been an element of unreliability (either intentional or unintentional) in the information on septic waste volumes and origins that has been given to council by those contractors discharging to our system.

A rough calculation based on the likely number of septic tanks in the Otorohanga district, the volumes of typical tanks and the likely frequency of emptying has provided an estimate of the likely total annual volume of septic waste that is significantly lower than the volume that is actually being received that is indicated to come from within the district, but few of the loads received have been identified as having come from outside the district.

A further issue that has eroded confidence that all contractors are conforming with the requirements of their licence has been the fact that on some occasions the unloading of septic waste has been accompanied by odours not typically associated with material from household septic tanks, which is the only material contractors are authorised to discharge. This has raised the possibility that other more concentrated non-household wastes may have been discharged, which could have had very adverse effects on the ponds.

Aerator Issues

ODC's paddle wheel aerators have a long history of technical problems. The units are subject to significant dynamic loadings and bearing, gearbox, motor and structural failures have occurred on a regular basis, resulting in elevated costs and significant down-time.

Interestingly most of the problems have been encountered with just one of the two aerators, despite them being of identical design.

At various times there has been discussion of the potential to replace the more problematic unit with some other form of aeration device, but a focus on minimizing short term costs and the fact that the other unit has continued to function well has resulted in repairs continuing to be preferred to replacement.

A point has however now been reached where it is considered futile to conduct further repairs to the more troublesome aerator, and replacement is proposed.

In addition to paddle wheels two other types of device are commonly employed to aerate wastewater treatment ponds, these being high speed propeller type aerators, and direct air injection, where compressed air is bubbled through the wastewater from perforated pipes on the floor of the ponds.

The capital and operating costs of the different types of system are variable, and an indicative comparison is shown in the table overleaf:

Aerator Type	Capital Cost	Maintenance Cost	Operating Cost
Propeller	Lowest	Medium	Highest
Paddlewheel	Medium	Highest	Medium/High
Air injection	Highest	Lowest	Low/Medium

The operating cost of an air injection system can be very low because it can, with small bubble sizes, be a very efficient mechanism of transferring oxygen to the water, needing only half the power of the other types of aerators of comparable capacity.

The capital cost of such a system is however also substantially higher, though exactly how high is not yet known, as whilst propeller and paddlewheel aerators are standard units that can be bought 'off the shelf' air injection systems need to be customised to the particular application.

At this point, based on a preliminary consideration it is suspected that a suitable air injection system, inclusive of design and project management might have an overall capital cost in the order of \$90,000, which is three times the cost of a simple replacement of the existing paddlewheel aerator. It is however believed that when all of the factors are considered, an air injection system may have a lower overall lifetime cost than other aerator types, whilst yielding a higher level of reliability that will contribute positively to meeting Resource Consent conditions.

It is however believed that before a final decision is made on the type of replacement aeration system, a detailed analysis needs to be conducted that confirms its capability and cost. Such an exercise has been commenced on council's behalf by a consultant.

Funding

The need to invest in a new aeration system was not expected, and funding has not been budgeted for this purpose. Furthermore it is believed that the primary cause of the recent shortfall in effluent quality is likely to be associated with the increased quantities of septic waste received, and this is only likely to increase in response to the widening gap between WDC and ODC charges.

Because of the likelihood of the current problems being associated with septic waste dumping it is considered appropriate that the majority of the cost associated with addressing the problem is recovered from those dumping this waste.

Proposed Responses

There is an urgent need to take steps to ensure that the quality of treated wastewater effluent discharged from the Otorohanga Community complies with the conditions of the Resource Consent. The proposed responses have two key elements:

- a. Reduce the potential for potential receipt of septic effluent from outside of the district
- b. Increase the extent and reliability of artificial aeration

The mechanisms by which it is proposed to achieve b. above is through the design and installation of an air injection system.

The achievement of a. is associated with b, in that it is proposed that the total capital cost of the air injection system (\$90,000) less the capital cost of the alternative of replacing the existing failed paddle wheel aerator with another similar unit (\$30,000) and any associated increase in operating and maintenance cost of the new system associated with its increased capacity will be recovered from the contractors who are discharging septic waste.

Furthermore it is proposed that enhanced systems to monitor the discharge of septic waste are installed at the Main North Road pump station and effectively monitored. This will have both an initial capital cost and an ongoing administrative cost, that again should be recovered from those dumping there.

Septic Waste Disposal Charges

A further question is how the additional costs associated with septic waste disposals (estimated to be in the order of \$23,000 per annum in total) should be allocated. It might be argued that if this additional cost is associated with waste originating outside of the district, it should be recovered through increases to the 'out of district' charges.

The potential problem with this approach is that even with the proposed enhanced monitoring systems it is possible that not all 'out of district' waste will be correctly identified and charged at the higher rate.

A more practical system would therefore be to evenly spread the cost over all septic waste, sourced both inside and outside the district. Doing so (based on the current annual 'tank capacity' total of approximately 1400 cubic metres) would result in all of the existing charges being increased by approximately \$17 per cubic metre.

This would raise the 'in district' charge to \$30 per cubic metre, which whilst more than double the current level, is still considered to be reasonable. When it is considered that a typical septic tank is perhaps only emptied every 4 or 5 years, the annualised cost of disposing of the waste is very low.

A similar increase to the existing 'out of district' charge would take that to \$82 per cubic metre. This, and all of the other ODC charges mentioned previously are however expressed as charges per cubic metre of tank capacity, rather than the actual real volume of waste, which will be less than the tank capacity. It has previously been assumed that on average the actual volume in a tank may be in the order of 75% of the tank capacity. As such the \$82 figure mentioned previously would translate to a charge of approximately \$110 per cubic metre of waste.

Such a level of charge, whilst relatively high, is however still very significantly lower than those of Waitomo. With a typical 'full' septic tank containing in the order of 3 cubic metres of waste, the differential between disposing of it at Otorohanga or Te Kuiti would still be \$240, which is unlikely to be offset by the additional haulage cost, particularly if the tanker has been filled with the content of more than one septic tank.

It is however believed that to set the out-of-district charge even higher than this \$82 may not be reasonable, as it is desirable to retain the opportunity for contractors to occasionally combine the collection of waste from either side of the district boundary at a particular location. The frequency of such combined collections is however not expected to be great, and it is therefore suggested that a more workable alternative to further increasing the 'out of district' charge rate beyond \$82 per cubic metre would be to also impose an annual limit on the volume of 'out of district' waste that any contractor can dump.

Currently a limit of 750 cubic metres per year is set for both of the contractors who are licenced to dump waste at Otorohanga, and the current level of dumping is near to these limits.

It is proposed that in addition to these overall limits, a limit of 100 cubic metres per year of 'out of district' dumping is set for each contractor.

A further challenge to the effective allocation of cost for out of district dumping is determining the proportion of 'out of district' material in a mixed load from multiple sources either side of a district boundary. In this case, because of the impracticality of accurately determining those proportions it is suggested that it is assumed that in any mixed load it is assumed that 50% comes from outside the district.

The enhanced monitoring systems and administrative process referred to previously (including checking of indicated waste sources) will be required to ensure that these new controls can be effectively applied.

It is proposed that the changes to the conditions of the existing two licences to discharge septic waste to the Otorohanga wastewater system are implemented immediately.

Whilst it is likely that the full costs associated with the works will not have effect until early in 2014, some additional costs are already being occurred and it is considered important that greater deterrents to receipt of 'out of district' waste are put in place in the very near future.

The suggested changes to septic waste dumping licences have been discussed with the local (Otorohanga based) liquid waste contractor, and he was understanding of the reasons for the proposed changes and was supportive of them.

DC Clibbery
ENGINEERING MANAGER

Item 142 PARKS AND RESERVES BUDGET - REQUEST TO REALLOCATE

**To: Chairperson & Members
 Otorohanga Community Board**

From: Community Facilities Officer

Date: 8 August 2013

Relevant Community Outcomes

- Ensure services and facilities meet the needs of the Community
 - Manage the natural and physical environment in a sustainable manner
-

Executive Summary

This is a request from the Otorohanga Community Board to reallocate a budgeted amount from the Croquet Court drain piping to extend the half court at Brett Reserve.

Staff Recommendation

It is recommended that:

The Otorohanga Community Board approve the reallocation of funds, now not required for the piping of the Croquet Court drain, to install an extension to the existing half court at Brett Reserve.

Report Discussion

The extension of the existing half court at Brett Reserve was approved by the Community Board at a previous workshop. The funding of this was to come from the Capital Sundry Reserve for this current year, of \$10,000.

The quote for the work amounts to around \$20,000.

There is a current budget to pipe the drain behind the Croquet Court of \$12,000. The piping project was completed in the last financial year using remaining budget from the car parking at the Croquet Court where a revised less costly design was implemented.

We therefore ask if this \$12,000 can be added to the \$10,000 already allocated to complete the extension to the half court to a full court.

Dianne Tautari
COMMUNITY FACILITIES OFFICER

Item 143 APPLICATION FOR TEMPORARY ROAD CLOSURE - DIWALI FESTIVAL

**To: Chairperson and Members
 Otorohanga Community Board**

From: Engineering Support Officer

Date: 8 August 2013

Relevant Community Outcomes

- The Otorohanga District is a safe place to live
 - Provide for the unique history and culture of the District
 - Foster an involved and engaged Community
-

Executive Summary

An application has been received from the Otorohanga Rotary Club for the following road closures within the Otorohanga community for the purpose of holding a Diwali Festival and associated events.

Staff Recommendation

It is recommended that:

Approval be granted for the following road closures and associated events:

Purpose: Diwali Festival

Date: Saturday, 19 October 2013

Details of Closure: **WAHANUI CRESCENT** – from its intersection with Cowley Lane to its intersection with Whittington Lane

Period of Closure: 1pm to 7pm

Detour: By way of Whittington Lane and Cowley Lane

With the following conditions imposed:

1. Persons will be allowed through in the event of an emergency.
 2. Otorohanga Rotary Club are to pay for all advertising costs in appropriate newspapers. Public notice advertisements are to be published in the Waitomo News.
 3. Otorohanga Rotary Club are responsible for obtaining public liability insurance (and paying the cost thereof) to a minimum value of \$2,000,000. This is required to indemnify Council against any damage to property or persons as a result of activities during the road closure period. Council requires that it is held covered under the terms of such policy and accordingly the policy is required to be in both parties' names on the form prescribed by Council.
 4. Otorohanga Rotary Club are to notify the bus and taxi operators of the closures.
 5. Otorohanga Rotary Club is to provide a detailed copy of their Traffic Management Plan to Council. This must comply with New Zealand Transport Agency's Code of Practice for Temporary Traffic Management and will require the services of STMS Level One qualified personnel for preparation of the plan and supervision of setting out and control of all temporary traffic management. The Temporary Traffic Management Plan (TTMP) is to be submitted to Council's Roding Department for approval no later than 10 working days before the closure.
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6. Otorohanga Rotary Club are solely responsible for signposting and policing of the roads to be closed and for the detour route. This includes arranging the delivery, erection and staffing of all road closure barriers and the removal thereof after closures.
7. Signs advising of the road closures are to be erected at the start and end of the closed portions of roads and on each intersecting road two weeks prior to the road closure. All signs are to be removed immediately after the closure. A Otorohanga Rotary Club representative is to meet with Council Engineering Staff regarding the required signs format, size, location and quantity of signs for approval before they are manufactured and erected.
8. The Otorohanga Rotary Club are to obtain signatures of businesses affected, confirming notification that the proposal has been received.
9. Any damage to the road surface or roadside furniture shall be made good to the satisfaction of the Otorohanga District Council Roading Manager, at the cost of the applicant.
10. All litter is to be removed from the road reserve prior to re-opening the road.

Report Discussion

These road closures are proposed pursuant to the Tenth Schedule of the Local Government Act 1974. The Otorohanga Rotary Club are prepared to comply with the objection provisions contained in the Transport (Vehicular Traffic Road Closure) Regulations 1965, to build good relations with businesses from the affected area.

Attached is a letter from the Diwali Committee Chair of the Otorohanga Rotary Club seeking the Community Board's approval to hold this event. They are in the process of consulting with affected businesses. In support of this event Council staff will assist with preparation of the Traffic Management Plan and supply signage from Council's community road safety signage store, free of charge.

Robyn Hodges
ENGINEERING SUPPORT OFFICER

Attachments

- a. Application seeking approval to hold a Diwali Festival in Wahanui Crescent

The Chairman

Otorohanga Community Board

23rd July 2013

DIWALI FESTIVAL

The Otorohanga Rotary Club in association with interested individuals from our community, propose to hold a Diwali Festival this spring. Diwali is India's best loved festival. It is a traditional celebration of good over evil, light over dark.

It is envisaged that this event will involve a number of groups and many individuals in the planning and preparation.

It will be a festival full of colour, sound, movement and activity that will entertain the people of Otorohanga, visitors from our neighbouring towns and more. The festival will appeal to all age groups from children through to our senior citizens.

The proposed plan is;

- Saturday 19th October 2013
- 3pm into evening
- Wahanui Crescent
- Food stalls, Indian dancing display, Miss India competition, traditional Indian games, Indian souvenir stalls

We believe Wahanui Crescent would be the best location for our event. It provides the perfect combination of over head cover – Sir Edmund Hillary walkway, power supply, stage – Origin coffee platform, public toilets, hard surface for the games and artwork proposed. We would like to request permission from the Community board for the closure of Wahanui Crescent to all vehicular traffic for the duration of the festival.

Our next meeting is scheduled for Wednesday 31st July, 6.00pm Services and Citizens Club. Please contact me should you wish to have more clarification or discuss our Diwali proposal. Alternatively we would welcome to our planning meetings any Council member that would like to take an interest in our venture.

Many thanks



Debbie Loomans

Diwali Committee Chair

078730762

pindari@xtra.co.nz

Item 144 OCB MATTERS REFERRED 13 JUNE 2013

**To: Chairperson and Members
 Otorohanga District Council**

From: Governance Supervisor

Date: 8 August 2013

Executive Summary

1. BOARD

13 June 2013

- i. To meet on-site at the Otorohanga Cemetery to familiarise with the area and give consideration to options to extend the burial berms.

**CA Tutty
GOVERNANCE SUPERVISOR**

GENERAL