

Decision on an application for resource consent under the Resource Management Act 1991



Discretionary activity

Application number: DIS60353629 (s15 wastewater discharge permit)

Applicant: Beachlands South Limited Partnership

Site address: 110 Jack Lachlan Drive, Beachlands

Legal description: Lot 2 DP501271 (RT 748626)

Proposal:

To discharge up to 80.3m³ per day of tertiary quality wastewater to land via a 1.68 hectare pressure compensating drip irrigation (PCDI) disposal field), at an application loading rate of 5mm/day.

Resource consent is required for the following reasons:

Discharge consent (s15) – DIS60353629

Auckland Unitary Plan (Operative in part)

Regional land use (operative plan provisions)

- The proposal is a Discretionary activity pursuant to Rule E5.4.1(A6) of the Auckland Unitary Plan (Operative in Part) as the design flow is more than 6m³ of treated domestic type wastewater (80.3m³ is proposed) via a land application disposal system and the discharge is not provided for by any other rule in the plan.

Decision

I have read the application, supporting documents, and the report and recommendations on the application for resource consent. I am satisfied that I have adequate information to consider the matters required by the Resource Management Act 1991 (RMA) and make a decision under delegated authority on the application.

Acting under delegated authority, under sections 104, 104B, 105 and 107 and Part 2 of the RMA, the resource consent is **GRANTED**.

Reasons

The reasons for this decision are:

1. In accordance with an assessment under ss104(1)(a) and (ab) of the RMA, the actual and potential effects from the proposal will be acceptable as:
 - a. The wastewater disposal system has been designed for an application loading rate of 5mm/day. TP58 recommends a loading rate of up to 4mm/day for category 5 soils. Whilst the loading rate is above the recommended conservative guidelines, actual loading rates under normal operation are expected to be significantly less than peak calculations, based on fluctuating occupancy. In addition, the irrigation lines are installed sub-surface, a setback of greater than 15 metres from surface water has been maintained, with a groundwater separation of greater than 1.0m below ground level, and a 50% reserve area will be retained if required for irrigation. Based on the information provided, the application loading rate is considered acceptable so as to avoid adverse effects upon groundwater and surface water.
 - b. Whilst the irrigation areas for the wastewater disposal field have been in use for approximately three decades for the discharge of secondary treated wastewater, their use has been previously light. As such it is considered that the nitrogen and phosphorus associated with the wastewater discharges can be accommodated with negligible adverse effects on soil and the micro-organisms that exist within it.
 - c. The wastewater disposal area is in a location where golf course users and the wider public would not usually have access. This area is separated by several hundred metres from any buildings used for residential purposes and at least 100 metres from the property boundaries. No visual or odour effects have been identified that will result in adverse amenity effects.
 - d. The applicant's assessment is that the level of UV disinfection of the wastewater prior to the discharge to land via sub-surface drains will mean that there is a high level of treatment that will result in no public health effects. Council's wastewater specialist has reviewed the application information and indicated that best practice arrangements are in place to avoid adverse effects on public health.
 - e. The wastewater discharges will not be located in an area of known site of cultural or historic importance. The applicant has undertaken consultation with representatives of Ngāi Tai Ki Tāmaki who hold mana whenua status in the Beachlands area. The outcome of the consultation is that the applicant has demonstrated that they have a wastewater treatment and discharge system that is acceptable to Ngāi Tai Ki Tāmaki cultural values.
 - f. With reference to s104(1)(ab), there are no specific offsetting or environmental compensation measures proposed or agreed to by the applicant to ensure positive effects on the environment and none are considered to be necessary specific to this application.

2. In accordance with an assessment under s104(1)(b) of the RMA, the proposal is consistent with the relevant statutory documents. In particular:
 - a. The proposal is considered to be consistent with the National Policy Statement for Freshwater Management 2014. The wastewater discharge is treated to be of a high quality and designed so that effluent will not enter surface water and groundwater. Overall, the proposed discharge will not impact on the suitability for freshwater bodies for contact recreation.
 - b. With respect the Auckland Regional Policy Statement set out in Chapter B of the Auckland Unitary Plan (Operative in Part), the wastewater system and discharge has been designed to mitigate environmental effects and is of high quality so as to be consistent with Objectives B7.3.1 and B7.4.1 and their associated policies. The best practicable option for minimising the adverse effects of discharges from wastewater treatment plants will be utilised so as to avoid significant adverse effects on freshwater and coastal waters.
 - c. In regard to the water quality objectives and policies of E1.2 and E1.3 of the Auckland Unitary Plan (Operative in Part), potential contamination effects for coastal and freshwater will be avoided through the high level of wastewater treatment before being discharged to land. No practical alternative to land-based disposal of wastewater is available. Adverse effects on public and environmental health, water quality, mana whenua values, and amenity values will be avoided.
 - d. In regard to the New Zealand Coastal Policy Statement, it is considered that the wastewater treatment and disposal systems will not impact upon the function of the coastal environment and coastal water quality will be maintained. There will be no significant adverse effects on associated with human activity ecology and habitats as a result of the discharges to land proposed. There are no aspects of this application that are considered to be inconstant with the Hauraki Gulf Marine Park Act 2000.
3. In accordance with an assessment under s104(1)(c) of the RMA, the following other matters are considered appropriate:
 - a. Consent conditions have been included which outlines specific maintenance, reporting and effluent sampling frequencies based on the progressive increase in wastewater volumes generated by the site. Many of the wastewater generating facilities on-site have been closed due to the significant re-engineering of the wastewater treatment plant that has been required, with routine monitoring and testing now being undertaken to ensure that the treatment plant is operating satisfactory and is meeting the effluent quality standards anticipated under this discharge consent. The re-commissioning checks are presently still in progress with reduced levels of facility use and occupancy of the on-site villa accommodation. It has been recommended by the council's wastewater specialist to sample the treated wastewater monthly until the plant volume reaches greater than 40 m³/day and two years of compliant sampling analysis has been received to confirm the plant is meeting the discharge standards. After this period, the consent holder may request to decrease the monitoring frequency to six-monthly for the term of the consent. A condition requiring six-monthly reporting has been imposed, to include a summary of occupancy; update of connections to the plant; flow meter

readings and sampling analysis; maintenance records; and a summary of all incidents/alarms.

- b. A condition requiring a full audit of the system (after 5 years of operation and again at 10 years of operation) has also been included in the consent conditions. If the treatment plant fails to meet the effluent quality standards proposed or is performing unsatisfactorily, a review under section 128 of the RMA will be required of whether the treatment system can comply with the consent conditions for the period until the expiry of the consent, and any changes or upgrades to the system which may be necessary can be incorporated. As these audit and review conditions are forming part of this resource consent decision, a duration of 15 years for this consent is considered to be appropriate.
4. With respect to sections 105 and 107 of the RMA, the proposal requires consent to discharge contaminants under section 15 of the RMA with respect to the discharge of wastewater to land. The adverse effects of the discharges of contaminants have been assessed above.

It is considered that the provisions of section 105 of the RMA will be met through the use of appropriate conditions of consent to ensure there are no significant adverse effects on the receiving environment. Regard has been had to the nature of the discharge and the sensitivity of the receiving environment. It is considered the applicant's reasons for the proposed choices of treatment and discharge to land are appropriate in the circumstances and regard has been had to alternative methods of discharge applicable in this case.

It is considered the proposal satisfies the provisions of section 107 of the RMA because the proposed discharge will not result in discharge to water that will cause, after reasonable mixing, any of the effects listed in section 107(1) (c – g) of the RMA.

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 5. In the context of this discretionary activity application for the discharge of wastewater to land, where the objectives and policies of the relevant statutory documents were prepared having regard to Part 2 of the RMA, they capture all relevant planning considerations and contain a coherent set of policies designed to achieve clear environmental outcomes. They also provide a clear framework for assessing all relevant potential effects and there is no need to go beyond these provisions and look to Part 2 in making this decision as an assessment against Part 2 of the RMA would not add anything to the evaluative exercise.
6. Overall the proposal is appropriate to be granted approval for the discharge of wastewater to land, subject to conditions.

Conditions

Under sections 108 and 108AA of the RMA, this consent is subject to the following conditions:

1. This consent shall be carried out in accordance with the documents and drawings and all supporting additional information submitted with the application, detailed below, and all referenced by the council as resource consent number DIS60353629
 - Application Form and Assessment of Environmental Effects prepared by GWE Consulting Engineers and dated February 2020.

Report title and reference	Author	Rev	Dated
<i>"Onsite Wastewater Treatment and Disposal Design Report, 110 Jack Lachlan Drive, Beachlands"</i> , ref: J1591	GWE Consulting	1	February 2020

Drawing title and reference	Author	Rev	Dated
Wastewater Site Plan, Project No: J1591, Drawing No: WW01	GWE Consulting	0	3 April 2020
As Built Plan, Project No: J1591	GWE Consulting	0	3 Feb 2020
As Built – Site Plan, Drawing No: 19073044-01	Innoflow	A	7 Jan 2020
As Built – Land Application – Sector 1A, Drawing No: 19073044-02	Innoflow	A	7 Jan 2020
As Built – Land Application – Sector 1B and 2, Drawing No: 19073044-03	Innoflow	A	7 Jan 2020
As Built – Land Application – Sector 3 and 4, Drawing No: 19073044-04	Innoflow	A	7 Jan 2020
As Built – Typical Land Application Service Detail, Drawing No: 19073044-05	Innoflow	A	7 Jan 2020

Other additional information	Author	Dated
Letter: <i>"DIS60353629 – Formosa Auckland Country Club Limited – 110 Jack Lachlan Drive, Beachlands"</i> s92 response to request for further information.	GWE Consulting	23 April 2020
Email: <i>"DIS60353629 – 110 Jack Lachlan Drive, Beachlands"</i> s92 response to request for further information clarification matters.	GWE Consulting	5 May 2020

2. Under section 125 of the RMA, this consent lapses five years after the date it is granted unless:
 - a. The consent is given effect to; or
 - b. The council extends the period after which the consent lapses.

Duration of consent

3. This consent shall expire on **31 July 2035** unless it has lapsed, been surrendered or been cancelled at an earlier date pursuant to the RMA.

Wastewater volume

4. The wastewater discharge volume to land shall not exceed 80.3 m³/day.

Discharge quality standards

5. The quality of treated wastewater immediately before it is discharged to the land disposal system shall not exceed the standards specified below:

Parameter	Units	Discharge standard
5-day Biochemical Oxygen Demand (BOD ₅)	mg/L	20
Total suspended solids (TSS)	mg/L	25
Faecal Coliforms (FC)	MPN (or CFU)/100ml	better than 400

Wastewater system design

6. The key components of the wastewater treatment and land disposal system shall be consistent with those described in the application and shall comprise at least the following minimum, or additional, components, dimensions and standards:

Enviro Technologies wastewater treatment system consisting of:

- (1x) Grease trap (at Clubhouse)
- (2x) 20,000 litres Primary tanks
- (1x) 6,000 litres Pre-aeration tank
- (1x) 6,000 litres Balance tank
- (2x) 20,000 litres Clarifier/Filter tanks
- (1x) 6,000 litres Final effluent transfer tank
- (1x) 30,000 litres Irrigation tank
- (1x) UV Disinfection system
- (4x) 20,000 litres Emergency tanks
- (1x) Wastewater discharge flow meter (with an accuracy of ±5% or better) installed at the outlet of the treatment system, with telemetric system for automated recording of the daily treated effluent discharge flow volume.

- (1x) Control panel and remote alarm monitoring system which shall be installed to notify in the event of high wastewater levels, any pump failure or any other form of mechanical failure within the treatment system.
- (1x) Emergency storage volume, equivalent to at least 24 hours peak flow volume, above the high-water alarm levels, within the wastewater treatment system.

Wastewater land disposal system:

- a. At least 1.68 ha land disposal area with pressure compensated drip irrigation (PCDI) and line spacing of 1.0 m centres, with clearly marked flush valves at the end of each line. The PCDI lines shall be installed sub-surface, a minimum of 300mm below the ground surface, with a peak hydraulic loading rate of 5mm/day.
- b. At least 50% reserve disposal area (8,400m²).
- c. The primary and reserve wastewater land disposal areas shall be located in accordance with the approved plans and shall be:
 - 10 metres from surface water
 - 1.5 metres from property boundaries
 - 3.0 metres from habitable buildings
 - 20 metres from a water supply bore
 - 0.6 metres from groundwater
 - 3.0 metres from retaining walls/embankments

Modifications approval

- 7. In the event that any modifications to the wastewater treatment and land disposal system are required, and if these will not result in an application under section 127 of the RMA or a new application, then the following information shall be provided:
 - Plans and drawings outlining the details of the modifications; and
 - Supporting information that details how the proposal does not affect the capacity or performance of the wastewater treatment and land disposal system.

All information shall be submitted to and approved by the council, prior to implementation.

Advice Note:

All proposed changes must be discussed with the council, prior to implementation.

Certification of wastewater treatment and land disposal system (as-built plans)

- 8. As-built plans of the wastewater treatment and land disposal system, which are certified (signed) by a suitably qualified and experienced wastewater professional as a true record of the wastewater system, shall be provided to the council for approval.

Contents of as-built plans

9. As-built plans shall be provided to the council either:

- no less than five days prior to the post-construction inspection meeting required by condition 10 below; or
- within five days of the discharge commencing;

whichever is the earlier.

The as-built plans shall display the entirety of the wastewater system, and shall include:

- location, dimensions and levels of any drainage field and reserve drainage field;
- plans, descriptions and dimension of all wastewater devices, including confirmation of the storage volumes and levels of any outflow; and
- details any other structures or works required by this consent (e.g. fence).

Post-construction inspection

10. The consent holder shall contact the council within three months of the completion of works relating to the wastewater treatment and land disposal system so that a post-construction inspection can be undertaken by the council.

The post construction meeting shall be:

- located on the subject area;
- include representation from the council; and
- include representation from the consent holder's wastewater specialist or maintenance operator or contractors who have undertaken the works.

Advice Note:

To arrange the post-construction meeting required by this consent, please contact the council (monitoring@aucklandcouncil.govt.nz).

Stormwater management system

11. No stormwater shall be allowed to flow onto, or have potential access to, the wastewater treatment plant, pump sump or disposal area.
12. Any stormwater management device shall be installed outside any area of land authorised by this consent for the treatment and disposal of wastewater.

Land disposal area performance

13. The discharge of wastewater to land shall not result in:
- ponding of wastewater within or adjacent to the land disposal area;
 - channelling of wastewater that results in overland runoff of wastewater beyond the land disposal area;
 - surface seepage (breakout) of wastewater beyond the land disposal area.

Use of reserve wastewater disposal areas

14. Written approval from the council shall be obtained prior to the use of all or part of the reserve land disposal area. In order to assist the council to determine whether or not to approve use of all or part of the reserve wastewater disposal area the following information shall be provided:
- a. The reason why the reserve land disposal area is needed;
 - b. An assessment of the condition of the primary land disposal area and any maintenance or other mitigation measures required to allow its continued use;
 - c. An assessment of discharge flow volumes on the site and an assessment of options to manage or reduce flows; and
 - d. An updated site plan showing the proposed layout of the irrigation lines within the reserve land disposal area.

Protection of the reserve wastewater disposal area

15. The reserve wastewater land disposal area shall be protected and maintained so that it remains available for future wastewater disposal should it be required. Retaining walls, buildings, or other permanent structures (including but not limited to vehicular access ways) that may compromise the future use of the reserve land disposal area for wastewater disposal shall not be established in the reserve land disposal area and any earthworks carried out within the reserve land disposal area shall be limited to minor disturbances of the top soil and gardening.

Maintenance standard

16. The wastewater treatment and land disposal system shall be maintained in good working order at all times

Land disposal area vegetation coverage

17. The land disposal area shall be planted as soon as reasonably practicable and no later than six months from the completion of pressure compensating drip irrigation (PCDI) line installation. A dense vegetative cover of suitable plant species (as recommended by TP58 Appendix G, or by a suitably qualified professional, with expertise in botany) shall be established and maintained that achieves at least 75% ground coverage within one year of completion of PDCI line installation to the satisfaction of the council.

Signage

18. Appropriate signage shall be installed and maintained to discourage access by unauthorized personnel to the land disposal field.

Operation and Maintenance Plan

19. Within three months of the discharge commencing, an Operation and Maintenance Plan for the on-going operation and maintenance of the wastewater treatment and land disposal system, shall be submitted to the council for certification.

The Plan shall include details of the six-monthly inspection programme (or more frequent if required by the system's manufacturer) to be undertaken by a suitably qualified wastewater professional to inspect and maintain the key components of the wastewater treatment and land disposal systems including:

- a. A schedule, instructions, checklist and forms for all operation and maintenance tasks required for the satisfactory operation of the wastewater treatment and land disposal systems, including:
 - solids removal;
 - filter cleaning;
 - pump maintenance;
 - flushing of PCDI lines (without discharging flushings off site or into surface water);
 - inspection of the land disposal area and vegetation management within it;
 - flow meter reading and telemetry/remote monitoring system;
 - taking, handling and transportation of samples (if required); and
 - the checklist shall clearly specify who is responsible for completing the required maintenance (for example the consent holder may be responsible for monthly cleaning of the outlet filter monthly and the maintenance contractor for the inspection and maintenance of other treatment system components).
- b. Names of appropriate people to contact in the event system malfunctions occur including contact telephone numbers.

The wastewater treatment and disposal system shall be managed in accordance with the Operation and Maintenance Plan.

Maintenance contract

20. A written maintenance contract for the on-going inspections and maintenance of the key components of the system shall be maintained with an appropriate wastewater treatment system operator, for the ongoing six monthly inspections, prior to the operation of the system. A written maintenance contract shall be in place and maintained for the duration of the consent.
21. A copy of the current maintenance contract and any replacement contract(s) shall be provided to council within three months of a contract being entered into.

Advice Note:

If the original wastewater provider that the consent holder has entered into a maintenance contract with becomes unable to fulfil the obligations of the contract, for any reason, then the consent holder will need to enter into a maintenance contract with another suitably qualified wastewater professional as soon as possible after becoming aware that the original provider will no longer be able to fulfil their contractual obligations.

Flow meter readings

22. The wastewater flow meter shall be read and the meter reading recorded daily for the life of the consent when the wastewater system is being used.
23. Meter readings shall be recorded on a form that contains the following information:
 - the consent number,
 - site occupancy,
 - site address,
 - consent holder's name, t
 - he date the flow reading was recorded,
 - the meter reading, and
 - the calculated discharge flow volume.

Discharge quality monitoring

24. Sample of treated wastewater shall be collected and analysed monthly for the following parameters.

Parameter	Units
5-day Biochemical Oxygen Demand (BOD ₅)	mg/L
Total suspended solids (TSS)	mg/L
Faecal Coliforms (FC)	MPN (or CFU)/100ml

All samples shall be collected and analysed in accordance with the latest edition of *“Standard Methods for the Examination of Water and Wastewater”*, a joint publication of the American Public Health Association, Water Environment Federation and the American Water Works Association; or an alternative method that has been approved in writing by the council.

25. The council may decrease the frequency of sampling to six-monthly when the daily discharge volume is greater than 40 m³/day and after two years of submitted compliant data, if requested by the consent holder. The council may require more frequent sampling to recommence at any stage to assist in monitoring compliance with this consent.

Actions if discharge quality standards are exceeded

26. In the event of any exceedance of the consented discharge quality standards the consent holder shall:
- Advise the council of the exceedance within two working days of the exceedance being detected;
 - Advise the council of the actions taken/being taken to address and remedy the cause of the exceedance within five working days of the exceedance being detected;
 - Undertake additional sampling and analysis at the request of the council to verify the wastewater treatment and land disposal system is being operated in accordance with the consent discharge standards.

Reporting

27. The following reporting information shall be submitted to the council, every six months by 31 May (for preceding period 1 November – 30 April) and by 30 November (for preceding period 1 May to 31 October):
- a. A report to summarize the overall performance of the wastewater treatment plant; including all wastewater connections to the plant for the reporting period; occupancy of the facility; a summary of incidents/system malfunctions/activated alarms, and actions taken to resolve problems identified;
 - b. Maintenance service reports for the reporting period;
 - c. Flow monitoring records for the reporting period;
 - d. Results and analysis of the discharge quality monitoring samples for the reporting period.

Audit

28. An audit of the conditions, operation, and performance of the wastewater treatment and land disposal system shall be undertaken by a suitably qualified wastewater professional in July 2025 (five years' time) and July 2030 (ten years' time). The audit shall include
- a. An assessment of the condition of the wastewater treatment and land disposal system.
 - b. An assessment of the adequacy of the system to treat and dispose of the consented wastewater volume.
 - c. An up-to-date list of the components of the wastewater treatment and land disposal system.
 - d. A summary and assessment of all monitoring completed in accordance with the consent conditions over the past five years, including flow meter readings, and treated wastewater sampling analysis.
 - e. A summary and a review of all system maintenance conducted over the past five years, including records of all plant failures, repairs and any upgrades required.
 - f. Recommendations including timeframes for any changes, upgrades or remedial works to the treatment and land disposal system or process.
 - g. A copy of the assessment report shall be provided to the council by no later than 1 September of the year in which the assessment is undertaken.

Review under s128

29. Under section 128 of the RMA the conditions of this consent may be reviewed by the council at the consent holder's cost within three months of council being in receipt of the audit reports provided under Condition 28 in order:
- a. To deal with any adverse effect on the environment which may arise or potentially arise from the exercise of this consent and which it is appropriate to deal with at a later stage, in particular adverse effects on soils, surface waters or groundwater.
 - b. In the case of a discharge permit or a coastal permit to do something which would otherwise contravene section 15 or 15B of the RMA, to require the adoption of the best practicable option to remove or reduce any adverse effects on the environment, in particular adverse effects on soils, surface waters or groundwater.

Advice Note:

Under section 128 of the RMA the conditions of this consent may be reviewed by the council at the consent holder's cost in the following circumstances:

- *In the case of a coastal, water or discharge permit, to provide compliance with rules in any regional plan relating to use of water, water or air quality etc. (refer section 128(1)(b) of the RMA) that have been made operative since the commencement of consent.*
- *In the case of a coastal, water or discharge permit, to provide compliance with any relevant national environmental standard that has been made since the commencement of consent.*
- *At any time, if it is found that the information made available to the council in the application contained inaccuracies which materially influenced the decision and the effects of the exercise of the consent are such that it is necessary to apply more appropriate conditions.*

Advice notes

1. Any reference to number of days within this decision refers to working days as defined in s2 of the RMA.
2. For the purpose of compliance with the conditions of consent, "the council" refers to the council's monitoring officer unless otherwise specified. Please email monitoring@aucklandcouncil.govt.nz to identify your allocated officer.
3. For more information on the resource consent process with Auckland Council see the council's website: www.aucklandcouncil.govt.nz. General information on resource consents, including making an application to vary or cancel consent conditions can be found on the Ministry for the Environment's website: www.mfe.govt.nz.
4. If you disagree with any of the above conditions, and/or disagree with the additional charges relating to the processing of the application(s), you have a right of objection pursuant to sections 357A and/or 357B of the Resource Management Act 1991. Any objection must be made in writing to the council within 15 working days of your receipt of this decision (for s357A) or receipt of the council invoice (for s357B).
5. The consent holder is responsible for obtaining all other necessary consents, permits, and licences, including those under the Building Act 2004, and the Heritage New Zealand Pouhere Taonga Act 2014. This consent does not remove the need to comply with all other applicable Acts (including the Property Law Act 2007 and the Health and Safety at Work Act 2015), regulations, relevant Bylaws, and rules of law. This consent does not constitute building consent approval. Please check whether a building consent is required under the Building Act 2004.
6. All information requirements of this consent including the engineer's certificates, as-built plans, maintenance contract, operations and maintenance plan, annual flow monitoring records, copies of maintenance service records, audit reports any other monitoring requirements of this consent can be emailed to Auckland Council at monitoring@aucklandcouncil.govt.nz. Please include the consent number in the email title.
7. Flushing of pressure compensating drip irrigation (PCDI) lines should be conducted in a manner that does not result in discharges of flushed water off the property or into surface water.

Delegated decision maker:

Name: Robert Chieng

Title: Team Leader, Resource Consents

Signed:



Date: 24 July 2020