

BEFORE THE HEARING PANEL

IN THE MATTER of the Resource Management Act
1991

AND

IN THE MATTER of an application by Grenadier Limited
to the Manawatū-Whanganui Regional Council
(reference: **APP-2020203164.01**) for the suite of
resource consents associated with the construction
and development of a proposed eighteen hole links
golf course and ancillary activities on land at 765
Muhunoa West Road, Ōhau

UPDATE TO THE COMMISSIONERS

MRS CHRISTINE FOSTER (CHAIR), DR FLEUR MASEYK AND MR REGINALD PROFFIT

SECTION 42A REPORT OF FIONA MORTON – CONSULTANT SENIOR PLANNER

3 May 2022

A. INTRODUCTION

Qualification and Experience

1. My name is Fiona Janet Morton and my qualification and experience are set out in my primary s42A report dated 6 April 2022.

B. UPDATES

2. The purpose of this memo to provide the Panel with an update from the Regional Council following the receipt of the s41B reports from the Applicant.
3. The following updates must be prefaced with should the Panel be of a mind to grant consent to this application, then the revised conditions are the ones that should be imposed.
4. Taking into consideration the addendum s42A evidence from the Regional Council wastewater expert, Ms Trisha Simonson, which essentially removed reference to composting toilets, revised conditions for **ATH-2022205142.00 – Wastewater** were provided to the Applicant on **Friday 29 April**. These conditions were verbally accepted on **Monday 2nd May** and are attached.
5. Additionally and following review of the Applicant's s41B report, revised conditions for **ATH-2022205141.00 – Groundwater** were also provided to the Applicant. It is my understanding that the Applicant has not accepted all these revisions and these conditions remain unresolved. Rationale for these amendments did involve expert input from the Regional Council's Groundwater expert Dr Tom Garden, and I have an additional technical memo that I will table tomorrow when the Regional Council reports are discussed. The tracked changes version of the Groundwater conditions are attached.
6. The conditions for **ATH-2022205149.00 – NES Regulation 54** were unchanged by the Applicant in the s41B report and I have nothing further to add to those conditions at this point.
7. In summary:

Application	Status update
ATH-2022205142.00 – Wastewater	Following addendum and revised conditions circulated to Application, no outstanding points of contention between

	Applicant and Regional Council remain. Clean copy of conditions provided.
ATH-2022205149.00 NES Regulation 54	– No outstanding points of contention between Applicant and Regional Council. No changes to original conditions made.
ATH-2022205141.00 Groundwater	– Refined points of contention. Track changes version of conditions provided.
ATH-2022205146.00, ATH-2022205145.00, ATH-2022205144.00, ATH-2022205143.00 Landuse consents for earthworks and ecological works	No updates on conditions prior to commencement of Hearing



Fiona Morton

CONSULTANT SENIOR CONSENT PLANNER

03 May 2022

Attached:

ATH-2022205149.00 – NES (Clean copy)

ATH-2022205142.00 – Wastewater (Clean copy)

ATH-2022205141.00 – Groundwater (Track changes)

Activity Specific Conditions

Descriptive Specification

1. These resource consents authorise the land disturbance and vegetation clearance at 765 Muhunua West Road, Ōhau, on the property legally described as **Lots 1 & 2 DP 51446 and part of Lot 4 DP 44581 Blks I III Waitohu SD (Esplanade Reserve)** (hereafter referred to as the property) at 765 Muhunua West Road, Ōhau at approximate map reference **NZTopo50 Centroid BN33:833-979**.
2. The Consent Holder must undertake the activity in general accordance with the consent application including all accompanying plans and documents first lodged with the Manawatū-Whanganui Regional Council on **2 July 2021** including the Erosion and Sediment Control Plan (ESCP) and associated Plans (June 2021), and;
3. further information received on **14 September 2021** via **email** being a partial response to the s92 request of **1 September 2021** and including ESCP Plans (*North West Corner, North East Corner, South West Corner, South East Corner Plan Numbers J709 – ENG–150 to 153, Revision B dated 3 September 2021*);
4. further information received on **4 October 2021** via email being a partial response to an the Regional Council email of **1 October 2021** relating to ecological and coastal information; and
5. further information received on **1 November 2021** via **email** being a partial response to the s92 request (Cultural effects) of **29 October 2021**.
6. Where there may be inconsistencies between information provided by the Applicant and conditions of these resource consents, the conditions of these resource consents apply.
ADVICE NOTE: Any variance from the location, design concepts and parameters, implementation and / or operation may require a new resource consent or a change of consent conditions pursuant to section 127 of the Resource Management Act 1991.
7. The Consent Holder must be responsible for all contracted operations related to the exercise of these resource consents and must ensure contractors are made aware of the conditions of these resource consents and ensure compliance with those conditions.
8. A copy of these consents must be kept onsite at all times that physical works authorised by these resource consents are being undertaken and must be produced without unreasonable delay upon request from a servant or agent of the Manawatū-Whanganui Regional Council.

ADVICE NOTE: An electric version of these consents is considered appropriate to satisfy **Condition 4**.

Pre-Development Assurance

General conditions: water quality and movement

9. The general conditions relating to water quality and movement are as follows:
 - a. the activity must not result in the discharge of a contaminant if the receiving environment includes any natural wetland in which the contaminant, after reasonable mixing, causes, or may cause, 1 or more of the following effects:
 - i. the production of conspicuous oil or grease films, scums or foams or floatable or suspended materials:
 - ii. a conspicuous change in colour or visual clarity:
 - iii. an emission of objectionable odour:
 - iv. the contamination of freshwater to the extent that it is not suitable for farm animals to drink:
 - v. adverse effects on aquatic life that are more than minor; and
 - b. the activity must not increase the level of flood waters that would, in any flood event (regardless of probability), inundate all or any part of the 1% AEP floodplain (but see subclause (10)); and
 - c. the activity must not alter the natural movement of water into, within, or from any natural wetland (but see subclause (11)); and
 - d. the activity must not involve taking or discharging water to or from any natural wetland (but see subclause (11)); and
10. Subclause (6)(b) does not apply if the person undertaking the activity—
 - a. owns or controls the only land or structures that would be affected by a flood in all or any part of the 1% AEP floodplain; or
 - b. has—
 - i. obtained written consent to undertaking the activity from each person who owns or controls the land or structures that would be affected by a flood in all or part of the 1% AEP floodplain, after informing them of the expected increase in the level of flood waters; and
 - ii. satisfied the relevant regional council that they have complied with subparagraph (i).
11. Despite subclause (6)(c) and (d), the temporary taking, use, damming, or diversion of water around a work site, or discharges of water into the water around a work site, may be undertaken if the following conditions are complied with:

- a. the activity must be undertaken during a period when there is a low risk of flooding; and
 - b. the activity must be undertaken only for as long as necessary to achieve its purpose; and
 - c. before the activity starts, a record must be made (for example, by taking photographs) of the original condition of any affected natural wetland's bed profile and hydrological regime that is sufficiently detailed to enable compliance with paragraph to be verified; and
 - d. the bed profile and hydrological regime of the natural wetland must be returned to their original condition no later than 14 days after the start of the activity; and
 - e. if the activity is damming, the dam must be no higher than 600 mm; and
 - f. if the activity is a diversion that uses a pump, a fish screen with mesh spacing no greater than 3 mm must be used on the intake.
12. In subclauses (6) and (7), **1% AEP floodplain** means the area that would be inundated in a flood event of a size that has a 1% or greater probability of occurring in any one year.

General condition: earth stability and drainage

13. The general condition relating to earth stability and drainage is that the activity must not create or contribute to—
- a. the instability or subsidence of a slope or another land surface; or
 - b. the erosion of the bed or bank of any natural wetland; or
 - c. a change in the points at which water flows into or out of any natural wetland; or
 - d. a constriction on the flow of water within, into, or out of any natural wetland; or
 - e. the flooding or overland flow of water within, or flowing into or out of, any natural wetland.

General conditions: earthworks, land disturbance, and vegetation clearance

14. The general conditions on earthworks, land disturbance, and vegetation clearance are as follows:
- a. during and after the activity, erosion and sediment control measures must be applied and maintained at the site of the activity to minimise adverse effects of sediment on natural wetlands; and
 - b. the measures must include stabilising or containing soil that is exposed or disturbed by the activity as soon as practicable after the activity ends; and

- c. the measures referred to in paragraph (b) must remain in place until vegetation covers more than 80% of the site; and if the activity is vegetation clearance, it must not result in earth remaining bare for longer than 3 months.

General conditions: vegetation and bird and fish habitats

15. The general conditions relating to vegetation and bird and fish habitats are as follows:
 - a. only indigenous species that are appropriate to a natural wetland (given the location and type of the natural wetland) may be planted in it; and
 - b. the activity must not result in the smothering of indigenous vegetation by debris and sediment; and
 - c. the activity must not disturb the roosting or nesting of indigenous birds during their breeding season; and
 - d. the activity must not disturb an area that is listed in a regional plan or water conservation order as a habitat for threatened indigenous fish; and
 - e. the activity must not, during a spawning season, disturb an area that is listed in a regional plan or water conservation order as a fish spawning area.

General condition: historic heritage

16. The general condition relating to historic heritage is that the activity must not destroy, damage, or modify a site that is protected by an enactment because of the site's historic heritage (including, to avoid doubt, because of its significance to Māori), except in accordance with that enactment.
17. In subclause (13), **enactment** includes any kind of instrument made under an enactment.

General conditions: machinery, vehicles, equipment, and construction materials

18. The general conditions on the use of vehicles, machinery, equipment, and materials are as follows:
 - a. machinery, vehicles, and equipment used for the activity must be cleaned before entering any natural wetland (to avoid introducing pests, unwanted organisms, or exotic plants); and
 - b. machinery that is used for the activity must sit outside a natural wetland, unless it is necessary for the machinery to enter the natural wetland to achieve the purpose of the activity; and
 - c. if machinery or vehicles enter any natural wetland, they must be modified or supported to prevent them from damaging the natural wetland (for example, by

widening the tracks of track-driven vehicles or using platforms for machinery to sit on);
and

- d. the mixing of construction materials, and the refuelling and maintenance of vehicles, machinery, and equipment, must be done outside a 10 m setback from any natural wetland.

General conditions: miscellaneous

19. The other general conditions are as follows:

- a. the activity must be undertaken only to the extent necessary to achieve its purpose;
and
- b. the activity must not involve the use of fire or explosives; and
- c. if there is existing public access to a natural wetland, the activity must not prevent the public from continuing to access the natural wetland (unless that is required to protect the health and safety of the public or the persons undertaking the activity); and
- d. no later than 5 days after the activity ends,—
 - i. debris, materials, and equipment relating to the activity must be removed from the site; and
 - ii. the site must be free from litter.

Review

20. The Manawatū-Whanganui Regional Council, under s128(1)(a) of the Resource Management Act, in July 2027, 2032 and 2037, serve notice of its intention to review the conditions of this resource consent for the purpose of reviewing the effectiveness of these conditions in avoiding and mitigating any adverse effects on the environment. The review of conditions shall allow for:

- a. An assessment of the water abstraction volumes and rates detailed in the conditions of this consent against any future allocation policy, and if necessary a change to the monitoring outlined in the conditions of the consent; and/-OR-
- b. To review the adequacy of and the necessity for monitoring undertaken by the Consent Holder; and/-OR-
- c. deletion or amendments to any conditions of this resource consent to ensure adverse effects are appropriately mitigated; and/-OR-

- d. addition of new conditions as necessary, to avoid, remedy or mitigate any unforeseen adverse effects on the environment.
21. The Manawatū-Whanganui Regional Council, under s128(1)(b) of the Resource Management Act, may review this resource consent, when a regional plan has been made operative which sets rules relating to maximum or minimum levels, flows or rates of water use, and in Manawatū- Whanganui Regional Council's opinion is appropriate to review the conditions of this consent in order to enable the levels, flows or rates set by the rule to be met.

Duration and Lapsing

22. If this resource consent is not given effect to by the commencement date + 5 Years it shall lapse pursuant to s125 of the Resource Management Act 1991.
23. The resource consent will expire on **1 July 2042**.

Condition Schedule

Descriptive Specification

1. This consent authorises the abstraction of groundwater from **Bore No. 361080** on the property legally described as **Lots 1 & 2 DP 51446 and part of Lot 4 DP 44581 Blks I III Waitohu SD (Esplanade Reserve)** (hereafter referred to as the property) at 765 Muhunoa West Road at approximate map reference **NZTopo50 BN33 833 979**.
2. The Consent Holder must undertake the activity in general accordance with the consent application including all accompanying plans and documents first lodged with the Manawatū-Whanganui Regional Council on **2 July 2021** and;
 - a. further information received on **14 September 2021** via **email** being a partial response to the s92 request of **1 September 2021**;
 - b. further information received on **4 October 2021** via email being a partial response to an the Regional Council email of **1 October 2021** relating to ecological and coastal information; and
 - c. further information received on **1 November 2021** via **email** being a partial response to the s92 request (Cultural effects) of **29 October 2021**.
3. Where there may be inconsistencies between information provided by the Applicant and conditions of the resource consent, the conditions of the resource consent apply.

ADVICE NOTE: Any variance from the location, design concepts and parameters, implementation and / or operation may require a new resource consent or a change of consent conditions pursuant to section 127 of the Resource Management Act 1991.

Pre-Development Assurance

4. Prior to exercising this consent, the Consent Holder shall have an electromagnetic flow meter installed by an accredited installer. An accredited installer is currently accredited by Irrigation New Zealand (also referred to as IrrigationNZ) represented by the 'Blue Tick' logo. The flow meter must be:
 - a. located on the water abstraction line; and
 - b. have a pulse counter output traceably calibrated to +/- 5% or better; and
 - c. capable of providing daily water use as well as a pulse counter output; and

- d. positioned to measure the entire volume abstracted under authorisation of this consent; and
- e. installed in accordance with the Resource Management (Measurement and Reporting of Water Takes) Amendments Regulation 2020; and
- f. installed in accordance with the IrrigationNZ “The New Zealand Water Measurement Code of Practice” September 2018.

ADVICE NOTE: An accredited installer is currently accredited by Irrigation New Zealand (also referred to as IrrigationNZ) represented by the ‘Blue Tick’ logo. A list of accredited providers can be located at www.irrigationnz.co.nz

5. **Prior to** exercising this consent, the Consent Holder shall install and maintain, in fully operational condition, a GRS data logger / telemetry unit compatible with the Manawatū-Whanganui Regional Council’s Telemetry System. The data logger / telemetry unit must be:
 - a. Installed on the water abstraction line; and
 - b. Have traceably calibrated to +/- 5% or better; and
 - c. Set to New Zealand Standard Time.

ADVICE NOTE: The GRS data logger / telemetry unit which is attached to the pulse counter output will be monitored by the Manawatū-Whanganui Regional Council to ensure compliance with the resource consent conditions and as part of a programme to enable monitoring of total catchment water use.

6. **Prior to** exercising this consent, the Consent Holder shall install and maintain an automatic backflow prevention device within the pump outlet plumbing or within the mainline to prevent the backflow of water through the meter referred to in **Condition 3** of this consent.
7. The Consent Holder shall ensure that the monitoring equipment referred to in conditions **3, 4,** and **5** in respect to the flow meters, telemetry equipment and /or back flow preventer is located in a position where it can be read and safely accessed at all times.
8. The Consent Holder shall provide evidence of the pipe head works and associated infrastructure being installed in accordance with conditions **3** and **5** by submitting an installation certificate completed by an accredited installer and submitting it to the Manawatū-Whanganui Regional Council’s Consents Monitoring Team Leader within **three (3) months** of the consent being granted.

ADVICE NOTE: Installation certificates can be sent to the Consents Monitoring Team Leader via email consent.monitoring@horizons.govt.nz –OR– via mail addressed to: C/- The Consent

Monitoring Team Leader, Horizons Regional Council, Private Bag 11025, Manawatū Mail Centre, Palmerston North 4442.

Environmental Standards

9. The maximum daily abstraction of groundwater shall not exceed **1390 cubic metres per day (m³/day)** from bore number **361080** at a maximum instantaneous rate of **17 litres per second (l/s)**.
10. The maximum annual abstraction rate of this resource consent shall not exceed **208,268 cubic metres per year (208,268 m³/year)**.

ADVICE NOTE: The annual volume applies from 1 July – 30 June being the **first July** after consent the commences.

11. The Consent Holder shall, in circumstances when the electrical conductivity measured either under condition 17 of this consent exceeds:
 - a. ~~1,000/750~~ **1,000** $\mu\text{S/cm}$, immediately decrease the daily abstraction volume to a maximum of **927 m³/day**;
 - b. ~~1,250/850~~ **1,250** $\mu\text{S/cm}$, immediately decrease the daily abstraction volume to a maximum of **463 m³/day**;
 - c. ~~1,500/1,000~~ **1,500** $\mu\text{S/cm}$, immediately cease the abstraction and shall not resume the abstraction until written notification from the Manawatū-Whanganui Regional Councils Consents Monitoring Team Leader has been received confirming that abstraction can continue.

Commented [BG1]: The EC values proposed in C11(a to c) appear excessively low. The pumped aquifer water samples analysed an EC of 561 uS/cm, so that doesn't give us much scope for error.
As an example, a similar WP (approx. 700 m from the coast) granted by Hawkes Bay Regional Council stipulated an EC of 1500 uS/cm as a condition (to sustainably reduce the daily volume pumped) and a limit of 2000 uS/cm as a condition to cease pumping.

It is suggested that the EC limits proposed in C11 (a, b and c) are amended to 1000, 1500 and 2000 uS/cm, respectively.

Commented [FMH2R1]: Dr Garden's technical memo adjusts to 1,000, 1,250, and 1,500

Operational Restrictions

12. In the event that the equipment detailed in conditions **3, 4, and 5** in respect to the flow meters, telemetry equipment and /or back flow preventer fails, replacement or repair will be at the Consent Holder's expense and replacement or repair will be required within **seven (7) days**.

Post-Development Assurance

13. Within **three (3) months** of installation, the Consent Holder shall have the flow meter (required by Condition **3**) verified by an Irrigation New Zealand "Blue Tick" accredited verifier.

14. The flow meter shall be verified by an Irrigation New Zealand “Blue Tick” accredited verifier every **five (5) years** thereafter to ensure compliance with condition 13. The Consent Holder shall provide evidence of the verification in writing to the Manawatū-Whanganui Regional Council’s Consents Monitoring Team Leader within **one (1) month** of the verification being completed.

ADVICE NOTE: Written verification can be sent to the Consents Monitoring Team Leader via email consent.monitoring@horizons.govt.nz –OR- via mail addressed to: C/- The Consent Monitoring Team Leader, Horizons Regional Council, Private Bag 11025, Manawatū Mail Centre, Palmerston North 4442.

Monitoring Provision

15. The Consent Holder shall allow any Manawatū-Whanganui Regional Council staff member and its agents to attach monitoring or telemetry equipment to monitor water use to ensure compliance with consent conditions and / or as part of a programme to enable monitoring of total water use.

16. In the event that the equipment detailed in conditions **3, 4, and 5** in respect to the flow meters, telemetry equipment and / or back flow preventer is removed for servicing or replacement, the Consent Holder shall notify the Manawatū-Whanganui Regional Council’s Consents Monitoring Team Leader within **one (1) working day** and keep daily records of the volumes and rates of water abstracted under this resource consent. These records shall be submitted to the Manawatū-Whanganui Regional Council on a weekly basis until the equipment is reinstalled or replaced.

ADVICE NOTE: Records can be submitted to the Consents Monitoring Team Leader via email consent.monitoring@horizons.govt.nz –OR- via mail addressed to: C/- The Consent Monitoring Team Leader, Horizons Regional Council, Private Bag 11025, Manawatū Mail Centre, Palmerston North 4442.

17. The Consent Holder shall in January, April and October of each year that the bore is in use, measure:

- a. groundwater levels under static conditions; and
- b. groundwater levels under pumping conditions; and
- c. electrical conductivity of pumped water.

18. The measurements shall be recorded in a log book and provided to the Manawatū-Whanganui Regional Council’s Consents Monitoring Team Leader **within five (5) working days** of the measurements being made.

ADVICE NOTE: Measurements can be sent to the Manawatū-Whanganui Regional Council via email consent.monitoring@horizons.govt.nz –OR– by mail, addressed to: C/- The Consents Monitoring Team Leader, Horizons Regional Council, Private Bag 11025, Manawatū Mail Centre, Palmerston North 4442.

19. If measurements of electrical conductivity under condition 17 increase by 50% from any earlier measured value ~~OR are greater than 500 µS/cm~~, then the Consent Holder at their expense, shall:
- a. install telemetry to measure groundwater levels & electrical conductivity continuously; and
 - b. collect one water sample in each month July, October, January and April for the duration of the consent; and
 - c. have laboratory analysis undertaken on the sample for the parameters listed in **Table 1** below; and
 - d. ~~have laboratory analysis undertaken for the ionic balance of the sampled water; and~~
 - e. provide the analysis results to the Manawatū-Whanganui Regional Council Consents Monitoring Team Leader.

Commented [BG3]: This Condition doesn't make sense as the initial EC in the well is 561 uS/cm (this information was included in the AQT Report).

It is suggested that the EC value is removed, leaving the Condition with an increase by 50% (as stipulated in the Hawkes Bay consent Condition 20 (attached)).

Commented [BG4]: Proposed that the highlighted section is deleted

Commented [FMH5R4]: Dr Garden agrees – change made

Commented [FMH6]: AJ requested deletion. Dr Garden disagrees. Has been reinstated as pre Dr Garden memo

Table 1: Water Quality Parameters

Parameter	Units
pH	
Calcium	ppm Ca ²⁺
Magnesium	ppm Mg ²⁺
Sodium	ppm Na ⁺
Potassium	ppm K ⁺
Iron	ppm Fe ²⁺
Manganese	ppm Mn ²⁺
Boron	ppm B ³⁺
Silica	ppm SiO ₂
Sulphate	ppm SO ₄ ²⁻
Chloride	ppm Cl ⁻
Carbonate	ppm CO ₃ ²⁻
Bicarbonate	ppm HCO ₃ ⁻

ADVICE NOTE: Analysis Results can be sent to the Manawatū-Whanganui Regional Council via email consent.monitoring@horizons.govt.nz –OR– by mail, addressed to: C/- The Consents Monitoring Team Leader, Horizons Regional Council, Private Bag 11025, Manawatū Mail Centre, Palmerston North 4442.

ADVICE NOTE: The ionic balance of the sampled water should not have a discrepancy of greater than 5%.

Review

20. The Manawatū-Whanganui Regional Council, under s128(1)(a) of the Resource Management Act, in July 2027, 2032 and 2037, serve notice of its intention to review the conditions of this resource consent for the purpose of reviewing the effectiveness of these conditions in avoiding and mitigating any adverse effects on the environment. The review of conditions shall allow for:

- a. An assessment of the water abstraction volumes and rates detailed in the conditions of this consent against any future allocation policy, and if necessary a change to the monitoring outlined in the conditions of the consent; and/-OR-
- b. To review the adequacy of and the necessity for monitoring undertaken by the Consent Holder; and/-OR-
- c. deletion or amendments to any conditions of this resource consent to ensure adverse effects are appropriately mitigated; and/-OR-

Commented [BG7]: I haven't seen this Condition before.
This will be determined in the lab. However, the result could be dependent upon the appropriate calibration range and I understand that errors can be associated with titrations (I'm not an expert on this).

Commented [BG8]: I would recommend that this be increased to 10% as there may be too many variables out of our (and the lab's) control. But again, I'm not experienced in this field.

Commented [FMH9R8]: Dr Garden disagrees – as per his memo. The Advice note has been reinstated.

d. addition of new conditions as necessary, to avoid, remedy or mitigate any unforeseen adverse effects on the environment.

21. The Manawatū-Whanganui Regional Council, under s128(1)(b) of the Resource Management Act, may review this resource consent, when a regional plan has been made operative which sets rules relating to maximum or minimum levels, flows or rates of water use, and in Manawatū- Whanganui Regional Council's opinion is appropriate to review the conditions of this consent in order to enable the levels, flows or rates set by the rule to be met.

Duration and Lapsing

22. If this resource consent is not given effect to by the commencement date + 5 Years it shall lapse pursuant to s125 of the Resource Management Act 1991.

23. The resource consent will expire on **1 July 2042**.

Condition Schedule

Descriptive Specification

1. This resource consent authorises the discharge of up to 14,600 litres per day of secondary treated domestic wastewater into and onto land at 765 Muhunoa West Road, Ōhau, on the property legally described as **Lots 1 & 2 DP 51446 and part of Lot 4 DP 44581 Blks I III Waitohu SD (Esplanade Reserve)** (hereafter referred to as the property) at approximate map reference **NZTopo50 Centroid BN33:833-979**.

ADVICE NOTE: The Consent Holder shall ensure that water reduction fixtures are installed in the owner's dwelling and sleepout serviced by the wastewater treatment and land application systems. Water reduction fixtures include, but are not limited to, the following: Dual flush toilet cisterns, automatic washing machine, low water use dishwasher and no garbage grinder.

2. The Consent Holder must undertake the activity in general accordance with the consent application including all accompanying plans and documents first lodged with the Manawatū-Whanganui Regional Council on **2 July 2021** including the Erosion and Sediment Control Plan (ESCP) and associated Plans (June 2021), and;
 - a. further information received on **14 September 2021** via **email** being a partial response to the s92 request of **1 September 2021** and including ESCP Plans (*North West Corner, North East Corner, South West Corner, South East Corner Plan Numbers J709 – ENG–150 to 153, Revision B dated 3 September 2021*);
 - b. further information received on **4 October 2021** via email being a partial response to the Regional Council email of **1 October 2021** relating to ecological and coastal information; and
 - c. further information received on **1 November 2021** via **email** being a partial response to the s92 request (Cultural effects) of **29 October 2021**.

3. Where there may be inconsistencies between information provided by the Applicant and conditions of this resource consent, the conditions of this resource consent apply.

ADVICE NOTE: Any variance from the location, design concepts and parameters, implementation and / or operation may require a new resource consent or a change of consent conditions pursuant to section 127 of the Resource Management Act 1991.

4. The Consent Holder must be responsible for all contracted operations related to the exercise of this resource consent and must ensure contractors are made aware of the conditions of this resource consent and ensure compliance with those conditions.

5. A copy of these consents must be kept onsite at all times that physical works authorised by this resource consent are being undertaken and must be produced without unreasonable delay upon request from a servant or agent of the Manawatū-Whanganui Regional Council.

ADVICE NOTE: An electric version of these consents is considered appropriate to satisfy **Condition 4**.

Pre-Development Assurance

6. The Consent Holder shall ensure that the wastewater treatment and disposal systems are installed to the on-site domestic wastewater management standard AS/NZS 1547:2012, and in general accordance with the concepts and parameters contained in the application documentation.
7. The Consent Holder shall ensure that the wastewater treatment and disposal systems are installed by an appropriately experienced, qualified and registered drain layer in order to meet industry standards in accordance with design specifications outlined in the application.
8. **Prior** to the commencement of discharge, and for the term of this consent, the Consent Holder shall ensure that each Land Application Area (LAA) is fenced off or closely planted (hedges) to deter stock, pets, people, and vehicles away from the LAAs.

ADVICE NOTE: The purpose of the above condition is from a public health and infrastructure damage prospective.

9. The Consent Holder shall make available, a **50%** reserve land application area corresponding to each LAA, as shown on **Site Plan LOC-2022100519 (Owners Cottage), LOC-2022100520 (Clubhouse), LOC-2022100521 (Maintenance Shed)** on the property that is fully operational and can be used in the event that the corresponding main land application area is unavailable.
10. Within **three (3) months** of the installation of the discharge areas, the Consent Holder must ensure that each LAA has an established vegetative cover in accordance with the design and the list of native shrubs, small trees, ferns and grasses suitable for planting on evapo-transpiration beds / trenches attached in **Appendix A** of this consent, to aid the uptake of water and nutrients.
11. Requests for variations to the list of species in Appendix A can be made to the Manawatū-Whanganui Regional Council and to be certified by a member of the Consents Monitoring Team.

ADVICE NOTE: Variations to the Appendix A can be supplied by emailing consents.monitoring@horizons.govt.nz

Environmental Standards

12. The design areal loading rate of the secondary treated domestic wastewater, which will be dosed by pump to land, shall not exceed **5 millimetres per day (5 mm/day)**.
13. The Consent Holder must ensure that the rate, frequency, and method of the discharge of treated wastewater onto and into land does not result in any:
 - a. contamination of groundwater,
 - b. any ponding of wastewater on the soil surface, or
 - c. surface runoff of wastewater to any adjacent drains (surface or subsurface), streams or beyond the property boundary.
14. The Consent Holder shall ensure any application of the wastewater has:
 - a. a separation distance of no less than **twenty (20) metres** from any surface water bodies (including streams or drains or ephemeral drains) or potable water supply bores on the property;
 - b. at least **1500 millimetres** vertical separation between the high winter water table and the level of the base of the disposal systems; and
 - c. at least **1.5 m** from property boundaries (as per Table 2.2 the *Manual for On-site Wastewater Systems Design and Management* (Horizons Regional Council, 2010)).
15. The Consent Holder shall ensure that there is no objectionable odour beyond the property boundary, at any time, arising from the wastewater collection, treatment, or land application activities.

ADVICE NOTE: Manawatū-Whanganui Regional Council staff will assess complaints about objectionable odour beyond the property boundaries in terms of whether or not the odour is objectionable to a reasonable ordinary person. When considering whether the odour is objectionable, Council staff will take into consideration the FIDOL factors: frequency, intensity, duration, offensiveness, and location.
16. The Consent Holder shall ensure that all stormwater from buildings and sealed surfaces such as driveways, is directed away from the wastewater treatment plants and the identified LAAs at all times.

Post-Development Assurance

17. The Consent Holder shall ensure that each wastewater system and the LAA and its vegetative cover is maintained to ensure compliance with conditions of this consent at all times.

18. Any failure of the systems, including uneven distribution due to the distribution method is to be reported to the Consents Monitoring Team of the Manawatū-Whanganui Regional Council within **five (5) working days** of detecting the failure.

ADVICE NOTE: The Consents Monitoring Team can be contacted by email consents.monitoring@horizons.govt.nz or on freephone 0508 800 800.

19. Every **six (6) months** from the commencement of discharge, or more frequently if required by manufacturers specifications, the Consent Holder or a registered drain layer inspect, clean, and carry out any necessary maintenance of the wastewater systems to ensure the wastewater treatment plants are in good working condition in accordance with the wastewater system manufacturers' specifications.
20. The Consent Holder shall retain and update as necessary an On-Site Wastewater Management Plan for the site. The following matters shall be addressed, as a minimum:
- a. An inspection programme designed to verify the correct functioning of all components of each on-site wastewater treatment system.
 - b. A schedule or checklist of maintenance requirements for all reticulation, pump chambers and components of each of the wastewater treatment and disposal systems. The maintenance requirements shall also specify that the secondary treatment and disposal systems shall be maintained on a minimum six-monthly frequency, in accordance with condition 19.
 - c. Evidence that a maintenance contract for the secondary treatment systems exists, to be applied for the duration of consent.
 - d. A copy of the names of the appropriate contact people in the event of system malfunction including contact telephone numbers.
 - e. A contingency plan for action to be taken in the event of malfunction or failure of system components at any of the treatment systems and/or disposal areas.
21. The Management Plan, along with any notification of any changes made to it, shall be provided to the Manawatū-Whanganui Regional Council within 6 months of exercising the consent or making changes to the Management Plan.

Monitoring

22. Within **six (6) months** of the wastewater system installation, the Consent Holder must supply the Manawatū-Whanganui Regional Council Consents Monitoring Team with a copy of the 'as-built' plans showing:
- a. the key components of each wastewater system including LAA and reserve area; and

- b. provide site photographs of fencing and planting of each LAA as required under **Conditions 8 and 10** of this consent.

ADVICE NOTE: The as-built plans can be supplied by emailing consents.monitoring@horizons.govt.nz.

23. The Consent Holder shall keep a record of all inspections, including the details of any system malfunctions and repairs listed under **Conditions 18, 19 and 20** and make these available to the Manawatū-Whanganui Regional Council's Consents Monitoring Officer on request.

Review

24. The Manawatū-Whanganui Regional Council, under s128(1)(a) of the Resource Management Act, in July 2027, 2032 and 2037, serve notice of its intention to review the conditions of this resource consent for the purpose of reviewing the effectiveness of these conditions in avoiding and mitigating any adverse effects on the environment. The review of conditions shall allow for:
 - a. To review the adequacy of and the necessity for monitoring undertaken by the Consent Holder; and/-OR-
 - b. deletion or amendments to any conditions of this resource consent to ensure adverse effects are appropriately mitigated; and/-OR-
 - c. addition of new conditions as necessary, to avoid, remedy or mitigate any unforeseen adverse effects on the environment.

Duration and Lapsing

25. If this resource consent is not given effect to by the commencement date + 5 Years it shall lapse pursuant to s125 of the Resource Management Act 1991.
26. The resource consent will expire on **1 July 2042**.

Appendix A

Horizons Regional Council's General List of Native Plants suitable for planting on evapo-transpiration beds

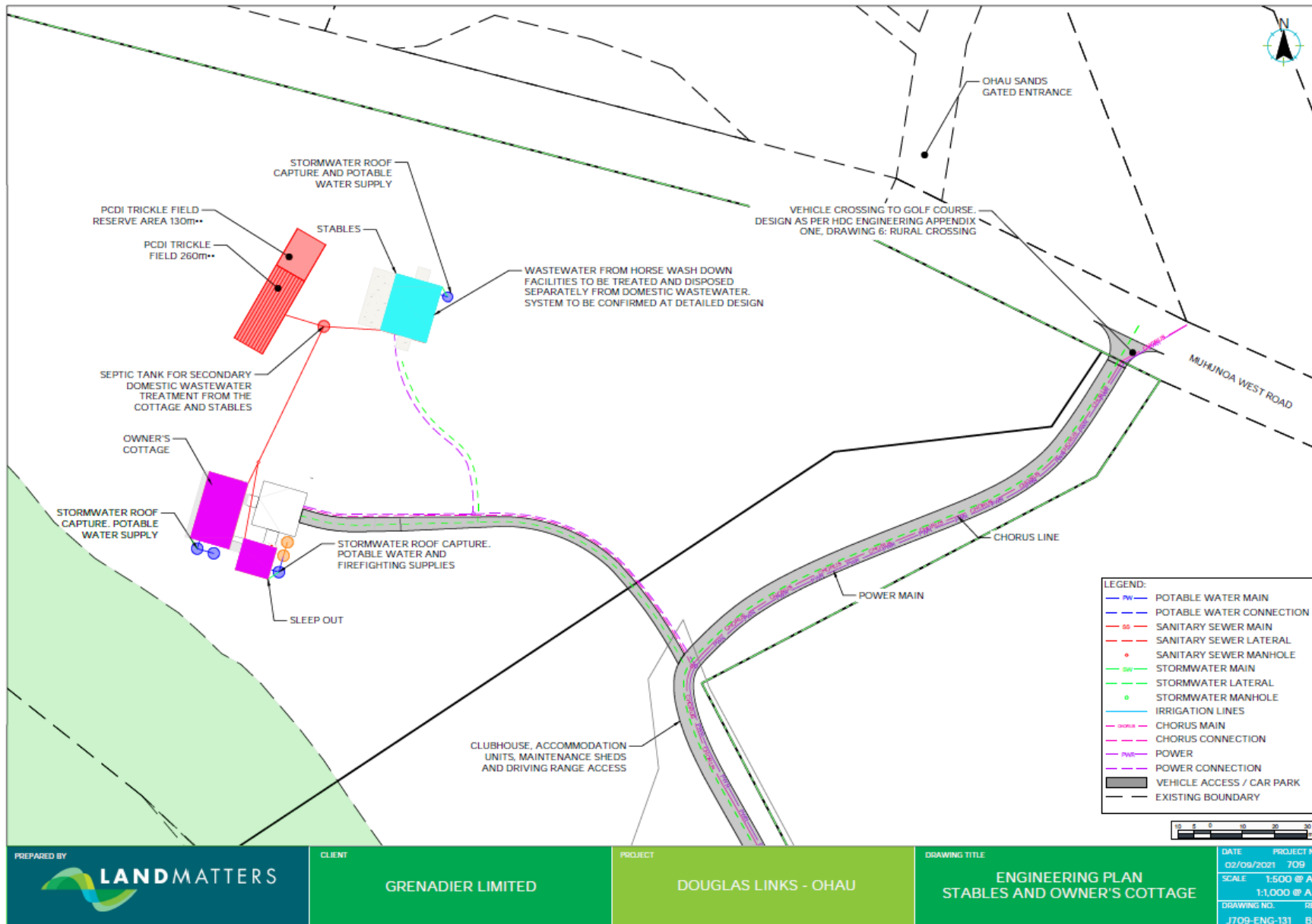
Native shrubs or small trees suited to moist or wet areas				
Common Name	Botanical Name	Height*	Soil^	Comments
Karamu	<i>Coprosma robusta</i>	2 to 4	M	Rapid growth, hardy
Mingimingi	<i>Coprosma propinqua</i>	1 to 2	M-W	Divaricating habit
Twiggy tree daisy	<i>Olearia virgata</i>	2 to 4	M	White flowers in summer
Marsh ribbonwood	<i>Plagianthus divaricatus</i>	2	M-W	Coastal sites, divaricating habit
Mahoe	<i>Melicactus ramiflorus</i>	5 to 10	M	Fast growth, hardy
Cabbage tree	<i>Cordyline australis</i>	5 to 10	D-W	Fast growth, hardy
Putaputaweta; marble leaf	<i>Carpodetus serratus</i>	4 to 8	M	Very attractive, graceful tree
Rangiora	<i>Brachyglottis repanda</i>	3 to 5	M	Sun or shade, needs exposure to wind in humid areas
Pate	<i>Schefflera digitata</i>	3	M	For shady, sheltered sites
Manuka and cultivars	<i>Leptospermum scoparium and cvs</i>	0.15 to 5	D-W	Many forms and flower colours
Native ferns suited to moist or wet areas				
Mamaku; black tree fern	<i>Cyathea medullaris</i>	5 to 15	M-W	Protect from frost and wind
Gully fern	<i>Cyathea cunninghamii</i>	5 to 15	M-W	Protect from frost and wind
Soft tree fern	<i>Cyathea smithii</i>	4 to 8	M	Needs cool, shady, sheltered spot and protection from frost
Wheki-ponga	<i>Dicksonia fibrosa</i>	2 to 6	M	Slow growing
Hen and chicken fern	<i>Asplenium bulbiferum</i>	0.6 to 1	M	Requires shade
Kiokio	<i>Blechnum novae-zelandiae</i>	1.2	M-W	New growth is red when grown in sunnier spot, fronds up to 3m long
Swamp kiokio	<i>Blechnum minus</i>	0.75	W	Sun or shade but must be wet
Crepe fern	<i>Leptopteris hymenophylloides</i>	0.6	M	Requires shade and shelter
Native grasses, sedges, rushes and other plants suited to moist or wet areas				
Jointed wire rush; Oioi	<i>Leptocarpus similis</i>	1	M	Coastal sites
Lake clubrush	<i>Schoenoplectus validus</i>	1.5	W	Needs full sun
Sea rush	<i>Juncus maritimus var. australiensis</i>	1	W	Coastal sites
Bog rush	<i>Schoenus pauciflorus</i>	0.5	W	Prefers permanently wet site
Knobby clubrush	<i>Isolepis nodosa</i>	1	M-W	
Three-square sedge	<i>Scirpus americanus</i>	0.6	M-W	
Cutty grass	<i>Gahnia setifolia</i>	up to 2.5	M	Sun or shade
Cutty grass	<i>Carex geminata</i>	1.2	M-W	Creeping rhizomes form large colonies - not suitable for gardens

Giant umbrella sedge	<i>Cyperus ustulatus</i>	0.6 to 1.2	M-W	Vigorous grower
Red tussock	<i>Chionochloa rubra</i>	1	M	Needs full sun for best colour
Raupo	<i>Typha orientalis</i>	up to 3	W	Can be invasive in gardens
Swamp astelia	<i>Astelia grandis</i>	up to 2	M-W	Sun or semi-shade
Toetoe	<i>Cortaderia fulvida</i>	1.5 to 2.5	D-W	Sun or semi-shade
Flax and cultivars	<i>Phormium tenax</i> and <i>Phormium cvs</i>	0.3 to 3	D-W	Numerous foliage colours

* Height is at maturity and is measured in metres.

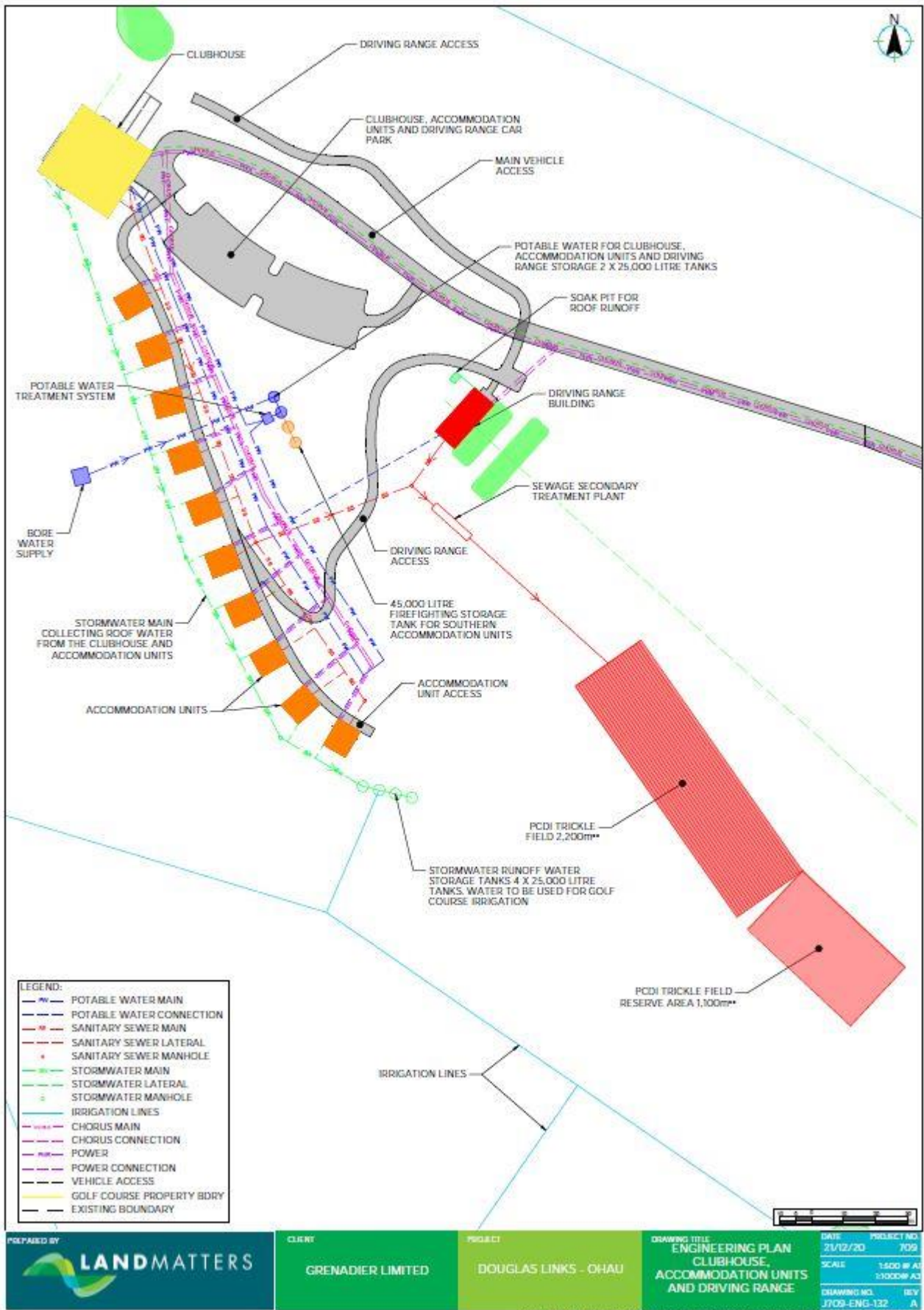
^ Soil relates to the soil moisture conditions tolerated/favoured where D = dry, M = moist and W = wet.

NOTE: The above is a general list of native shrubs, small trees, ferns and grasses suited to moist or wet areas.



LOC-2022100519 - Owners cottage

Wastewater consent
 ATH-2022205142.00



LOC-2022100521 – Clubhouse

Wastewater consent
ATH-2022205142.00



LOC-2022100521 – Maintenance Shed

Wastewater consent
ATH-2022205142.00