

Assessment against the National Policy Statement for Freshwater Management (2020) for 92 Brosnan Road, Levels

The applicant, Ashley Gould, is proposing to install an onsite wastewater treatment plant at 92 Brosnan Road, Levels to treat up to 1,000 L/day of standard domestic wastewater from a 3-bedroom dwelling. The properties in this immediate area are all on the flat landscape, however, Timaru itself has been built on rolling hills created by the extinct Mt. Horrible. This area is warm-hot in summer and cold in winter. Rain is evenly distributed throughout the year. Wright Tanks has tanks operating in and around this area.

National Policy Statement for Freshwater Management (NPS-FM)

The NPS-FM, including the fundamental concept Te Mana o te Wai, sets out objectives and policies that seek to protect and enhance the health and well-being of waterbodies and freshwater ecosystems, as well as the essential needs of people (e.g., drinking water).

(1) The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises:

- (a) first, the health and well-being of water bodies and freshwater ecosystems
- (b) second, the health needs of people (such as drinking water)
- (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

- **First Priority: The health and well-being of water bodies and freshwater ecosystems**

- a) There is no reticulated sewer system available for the applicants to connect into. The proposed system is an aerated (secondary treated) wastewater treatment plant to drip lines.
- b) To help preserve the health and well-being of water bodies it is important to understand the impact that any discharge will have on the groundwater below the application area and the type of soils that separate discharges from the groundwater.
 - i. The most reliable groundwater measurements are: 1.73m from J38/0123 located 335m to the north-west and 2.70m from BZ19/0148 408m to the South-East.
 - ii. The receiving environment is comprised of rich brown topsoil overlying silty loam and silty clay loam soils. These soils, when loaded appropriately (≤ 3.0 mm/day application rate) provide a moderate-level of additional treatment of any discharges as the flow percolates through the soil.
- c) The combination of secondary treatment and additional treatment as the discharge passes through the soil will limit negative effects of concentrations of contaminants (including nitrate-nitrogen and pathogens) on groundwater quality and the health and wellbeing of water bodies and ecosystems will be preserved.
- d) As a dairy farm, the amount of nitrate-nitrogen leached to ground is between 5 to 10-times higher than the equivalent nitrogen-load discharged by the treatment process. Conversion to a rural

dwelling will overall reduce the load of nitrogen and other contaminants that could ultimately enter the groundwater.

- **Second Priority: The health needs of people.**

- a) The immediate health need is for the safe treatment and disposal of domestic wastewater generated by occupants of the dwelling. The specified WWTP will receive wastewater from the dwelling and treat it to a standard which is unlikely to cause harm to the occupants in the nominated discharge location.
- b) By maintaining separation of the discharge location from boundaries, groundwater, water-bodies and drinking water supplies the health needs of people will be protected.
- c) The nearest drinking supply is well J38/0618 this is 306m W from the proposed site. Based on the piezometric contours this is upgradient of the discharge so is unlikely to be affected.

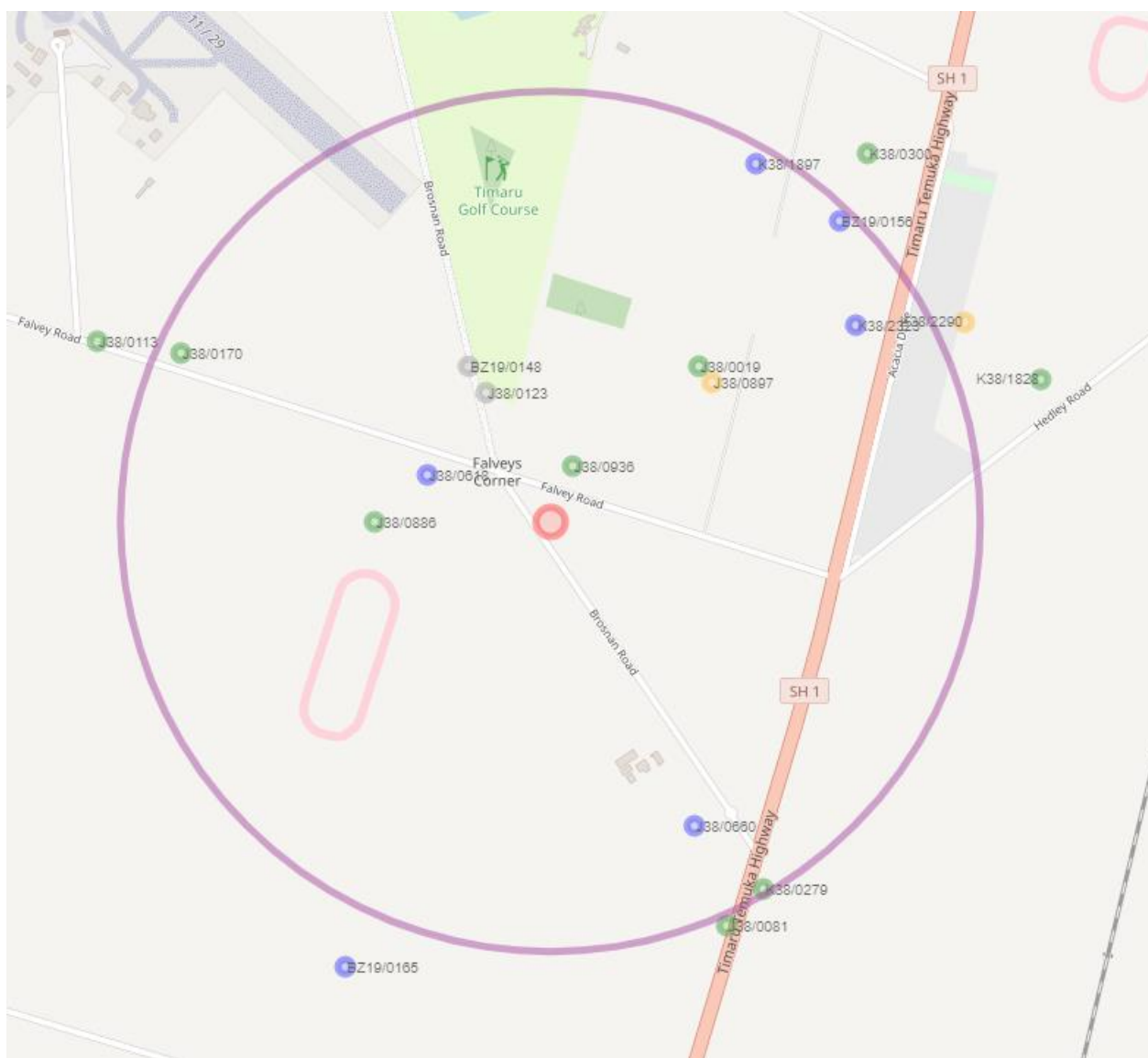


Figure 1 Location of 92 Brosnan Road, Levels (red) with active bores in a 1km radius (purple circle) (KEY: Blue – Domestic or Domestic/Stock water; Green – Irrigation; Orange – Stock water only; Grey – Water Level Observation)

- **Third Priority: The ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.**
 - a) In the absence of reticulated wastewater, the on-site wastewater treatment plant for the client will help ensure that the ability of people and communities to provide for their social, economic and cultural well-being, now and in the future which will be maintained.
 - b) Construction of residential dwelling provides a flow-on effect with sources of employment during construction for multiple industries (architects, surveyors, builders, plumbers and other tradespeople) and the on-going maintenance of the wastewater treatment plant provides additional work within the area.

Policies

The following table describes the 15 policies within the National Policy Statement for Freshwater Management (2020) and indicates the relevance of each policy to this specific consent.

#	Policy	Discussion	Relevant to Application?
1	Freshwater is managed in a way that gives effect to Te Mana o te Wai.	Treatment design incorporates Te Mana o te Wai principles.	Yes
2	Tangata whenua are actively involved in freshwater management (including decision-making processes), and Māori freshwater values are identified and provided for.	Treatment design and disposal incorporates Māori freshwater values.	Yes
3	Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.	Design identifies that conversion from farming activities will reduce the impact of nitrogen on groundwater and freshwater in general.	Yes
4	Freshwater is managed as part of New Zealand's integrated response to climate change.	Onsite treatment removes the requirement to pump wastewater to a centralised municipal or regional wastewater treatment facility reducing pumping costs. Pumping can have a significant power requirement which can have varied impacts on climate change.	Yes
5	Freshwater is managed (including through a National Objectives Framework) to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.	Surrounding water bodies are not degraded. J38/0019 has historic nitrate concentrations of 9-11 mg/L but these are from 20 years ago and the bore has nearby septic systems.	Not relevant
6	There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.	There are no wetlands near to the site.	Not relevant
7	The loss of river extent and values is avoided to the extent practicable.	The Opihi river is over 5km away.	Not relevant
8	The significant values of outstanding water bodies are protected.	There are no outstanding water bodies nearby	Not relevant
9	The habitats of indigenous freshwater species are protected.	Separation distances of > 20 m between site drain and disposal area	Not relevant
10	The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.	Separation distances of > 20 m between site drain and disposal area	Not relevant
11	Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.	No allocation for freshwater is required.	Not relevant

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12	The national target (as set out in Appendix 3) for water quality improvement is achieved.	None of the nominated lakes and rivers are near to the site.	Not relevant
13	The condition of water bodies and freshwater ecosystems is systematically monitored over time, and action is taken where freshwater is degraded, and to reverse deteriorating trends.	No water bodies are nearby	Not relevant
14	Information (including monitoring data) about the state of water bodies and freshwater ecosystems, and the challenges to their health and well-being, is regularly reported on and published.	Nearby groundwater monitoring bores should continue to be monitored to gather data.	Not relevant
15	Communities are enabled to provide for their social, economic, and cultural wellbeing in a way that is consistent with this National Policy Statement.	As there is no option for the property to be reticulated to a municipal/community wastewater scheme. The use of an onsite wastewater treatment system will enable development of the land improving the community's social, economic and cultural wellbeing in alignment with the NPS-FM	Yes

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