

Servicing Assessment

89 Bushy Beach Road, Oamaru

Prepared in support of PDP Submission 81.1 (B & R Kane)

28 September 2026



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1. Executive Summary

This report assesses the servicing feasibility of rezoning 89 Bushy Beach Road, Oamaru from Rural General to Rural Lifestyle zoning, guided by a structure plan, in support of submission point 81.1 by Bryce and Rachel Kane on the Proposed Waitaki District Plan (PDP). It is an abridged assessment intended to provide a high-level overview of the servicing of a rural lifestyle development as opposed to a full, detailed assessment. It considers water supply, wastewater, stormwater, transport and utilities for the development enabled by the structure plan: up to 25 new house platforms clustered in three development areas across the 43.82 ha site.

The assessment finds that the site can be serviced for the proposed zoning, and that there are no infrastructure constraints that would prevent the rezoning.

Water Supply:

Waitaki District Council (WDC) water mains are available at three points around the site: Bywell Street, Brinkburn Street and Bushy Beach Road. Consistent with rural lifestyle development, future dwellings will be supplied by restricted (trickle-feed) connections with their own on-site storage. This limits peak demand on the public network, and the on-site storage can also provide firefighting water where no compliant hydrant is nearby.

Wastewater:

All lots will be of an area large enough to accommodate on-site wastewater treatment and disposal. However, the preferred option is a low pressure sewer (LPS) system discharging to the existing WDC gravity mains in Bywell and/or Brinkburn Streets. This avoids on-site discharges near the coastal environment, requires no Council-owned pump station, and places only a slight, intermittent load on the receiving mains. While LPS systems put minimal loading on existing systems, WDC would need to confirm capacity of the existing mains.

Stormwater:

Stormwater will continue to discharge via natural overland flow paths to the coast. There is no downstream reticulation, built development or known flooding issue for stormwater neutrality/detention measures to protect, so the focus is instead on dispersing flows, controlling erosion and treating runoff before it leaves the site.

Transport and Access:

Refer to the transport effects memo prepared by Antoni Facey (23 September 2026), which concludes that no upgrades to the existing road network are required and that transport effects will be no more than minor.

Utilities:

Fibre is available in Bushy Beach Road and Bywell Street, and wireless broadband is a practical alternative. There are overhead power lines in Bywell Street, Brinkburn Street and Bushy Beach Road. Extensions and upgrades to the power network will be required, as is normal for greenfield development, and will be funded by the developer.



2. Introduction

2.1 Purpose

The purpose of this report is to assess the servicing feasibility of 89 Bushy Beach Road in relation to the rezoning sought through submission 81.1 on the PDP. It is one part of the supplementary information requested by Council in its letter of 30 July 2026, and should be read together with the draft structure plan (Figure 1) and the transport effects memo prepared by Antoni Facey.

2.2 Author qualifications

My name is David Shearer. I am a Licensed Cadastral Surveyor and the Director of Ridgeline Land Solutions Limited, based in Oamaru. I have over 15 years of professional experience in land development, subdivision design and cadastral surveying across New Zealand and Australia. I hold a Bachelor of Surveying and a Master of Surveying from the University of Otago.

I have experience in the preparation of subdivision designs, servicing assessments and feasibility analyses for greenfield and brownfield development projects. I am a Full Member of Survey + Spatial New Zealand and an Associate Member of the New Zealand Planning Institute.

2.3 Scope and limitations

This is an abridged, desktop-level assessment suitable for rezoning and plan-making purposes. It draws on WDC three waters records, the consented subdivision of the site (RM 202.2023.2276), my knowledge of the site, and standard engineering practice. It does not include detailed design, hydraulic modelling, or capacity confirmations from WDC or the utility providers.

2.4 Documents reviewed

- Proposed Waitaki District Plan (PDP) and maps
- Operative Waitaki District Plan
- WDC subdivision and land use consent decision 201.2023.2276 and 202.2023.2276 (Cape Ventures Ltd), including conditions and approved plans
- Transport effects memo, 89 Bushy Beach Road Plan Change (Antoni Facey, 23 September 2026)
- Draft structure plan, 89 Bushy Beach Road (Ridgeline Land Solutions, 24 September 2026)
- WDC GIS and three waters infrastructure records
- NZS 4404:2010 Land Development and Subdivision Infrastructure, and SNZ PAS 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice



3. Site Description and Proposed Development

3.1 Location and legal details

The site is located on the southern edge of Oamaru, between the South Hill residential area (Bywell, Brinkburn and Matfen Streets) to the west, the Cape Wanbrow reserve and walking tracks to the north, and the coastal escarpment above Bushy Beach to the east. It is owned by the submitters. The land subject to the rezoning is the portion of the property north-east of Bushy Beach Road, together with the 2 ha triangle of the same title (RT OT232/104) on the southern side of the road adjacent to Bushy Beach.

Records of title	OT232/104 and OT213/22
Appellation	Part Lot 2 DP 1392, Lot 4 DP 1392, and DP 3459
Area	43.82 hectares
Operative zoning	Rural General, with Significant Coastal Landscape overlays over parts of the site
PDP zoning	General Rural Zone (GRUZ), with Coastal Erosion Hazard overlays over parts of the site
Existing consent	Subdivision into 10 lots with a 4 ha minimum lot area (RM 202.2023.2276, granted 9 August 2024)

3.2 Topography and existing land use

The site is rolling coastal farmland used for grazing, with an existing dwelling close to Bushy Beach Road and the site of a former homestead (since burnt down) in the south-eastern part of the property. Most of the land falls generally eastwards and south-eastwards towards the coastal escarpment and Bushy Beach. There are two primary drainage gullies with relatively wide, flat bottoms. No development is proposed in these gullies.

Two existing ponds are located in the south-western part of the site (Area C) and WDC has advised that there is an existing overflow discharge from the South Hill reservoir onto the property.

3.3 Proposed development

The draft structure plan (Figure 1) divides the site into three development areas, each with its own access:

Area	Area (ha)	House platforms	Access
A	4.8	Approx. 7	Private extension of Bywell Street
B	16.5	Approx. 11	Private extension of Brinkburn Street
C	22.0	Approx. 8 (this value includes the existing dwelling)	Private accessways from Bushy Beach Road

The rezoning would be subject to a cap of 25 new dwellings, and lots will meet the Rural Lifestyle Zone standards of a 5,000m² minimum lot size and a 1 ha average (26 platforms in total, including the existing dwelling = 25 new). House platforms are clustered close to the existing urban edge and access points, and are kept outside the Significant Coastal Landscape and Coastal Erosion Hazard overlays.



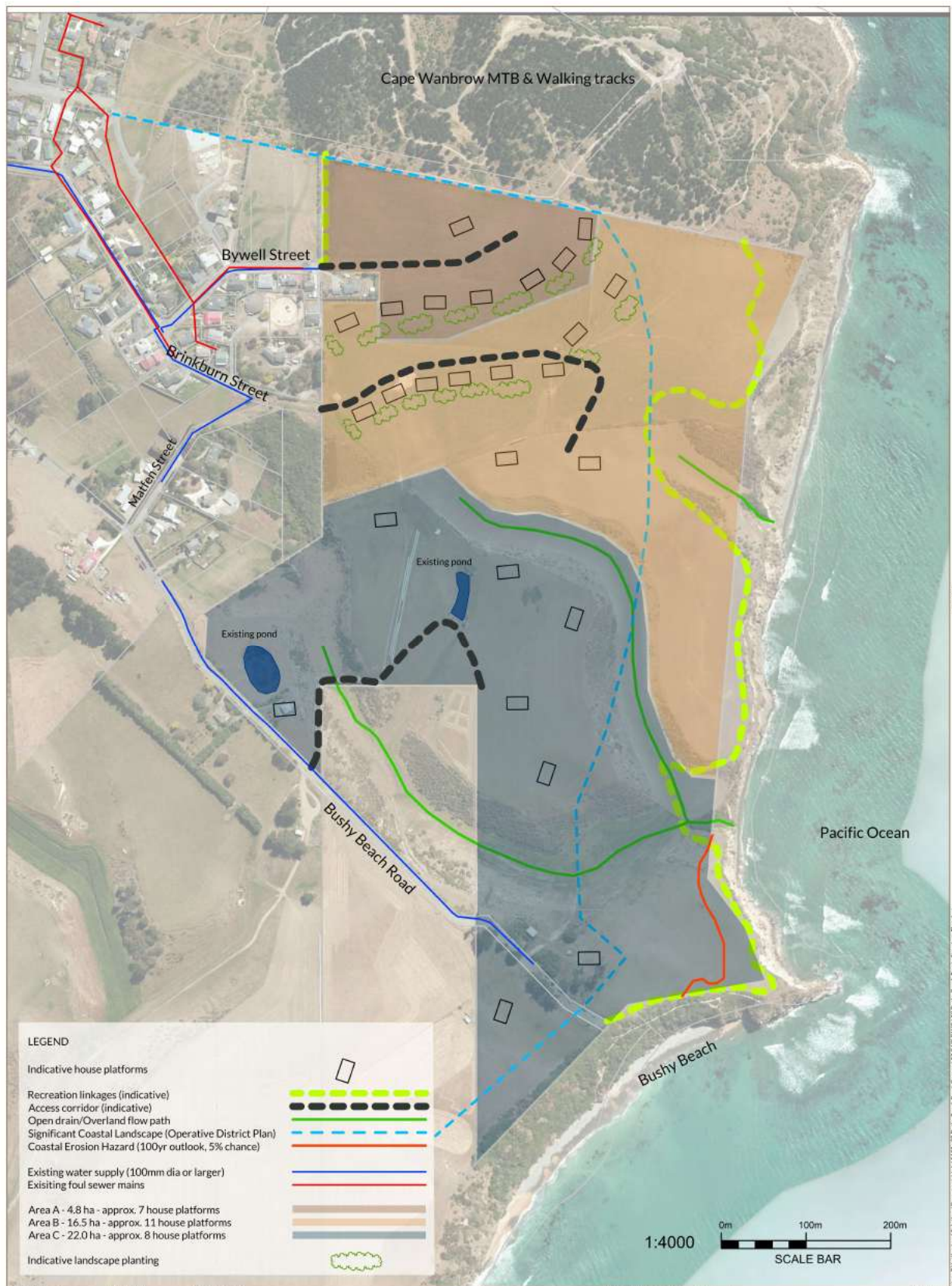


Figure 1 –Structure plan, 89 Bushy Beach Road (Ridgeline Land Solutions, 24/09/26)

3.4 Existing infrastructure

The existing WDC three waters and utility networks near the site are summarised below and shown on Figure 1.



Service	Existing network near the site
Water	• 100mm dia AC (asbestos concrete) main in Bywell Street, with a hydrant at the end of the line adjacent to the site • 100mm dia uPVC main in Brinkburn Street, about 100m west of the site • 100mm dia uPVC main in Bushy Beach Road, ending at a hydrant at the existing dwelling on 89 Bushy Beach Road • 25mm galvanised steel rider main from that hydrant to OT213/22 (DP 3459) near Bushy Beach
Wastewater	• 150mm dia concrete (CC) gravity main in Bywell Street, ending at a rodding eye adjacent to 13 Bywell Street (23m west of the site boundary) • 150mm dia uPVC gravity main in Brinkburn Street, ending at a rodding eye about 180m west of the site • The existing dwelling is served by an on-site septic tank and disposal field
Stormwater	No reticulated stormwater. Runoff flows overland to the coast. An existing overflow from the South Hill reservoir discharges onto the property.
Power	Overhead lines in Bywell Street, Brinkburn Street, and along Bushy Beach Road to OT213/22 (DP 3459) near Bushy Beach
Telecommunications	Fibre available in Bushy Beach Road and Bywell Street

4. Water Supply

4.1 Existing network

There are several locations where the WDC water network can be connected to the development:

- The 100mm dia AC main in Bywell Street, which has a hydrant at the end of the line adjacent to the site. This is the natural connection point for Area A and possibly Area B;
- The 100mm dia uPVC main in Brinkburn Street, about 100m west of the site. This may be the natural connection point for Area B; and
- The 100mm dia uPVC main in Bushy Beach Road, which runs to the existing dwelling at 89 Bushy Beach Road and ends at a hydrant. This is the natural connection point for Area C.

A 25mm galvanised steel rider main extends from the hydrant near 89 Bushy Beach Road to OT213/22 (DP 3459) near Bushy Beach.

In processing the consented subdivision, WDC advised that *"there is generally capacity for additional allocation in this area"*, and that new restricted connections are obtainable from Bywell Street. WDC also noted that the developer may be required to contribute to upgrading the local reticulation in Bushy Beach Road. This would be addressed at subdivision stage.

4.2 Domestic supply

Being rural lifestyle development, future dwellings will be supplied by restricted (trickle-feed) connections, each with its own on-site storage. This is the same arrangement required by the conditions of the consented subdivision, and is typical of rural lifestyle development on the edge of Oamaru.

Restricted connections draw a small, steady flow from the network, and household peak demand is met from on-site storage. The effect on network pressure and capacity is therefore much lower than for the



same number of on-demand connections. For up to 25 new dwellings spread across three connection points, the additional demand is not expected to constrain the existing network.

4.3 Firefighting

Hydrants are located at the end of Bywell Street, and on Bushy Beach Road at the existing dwelling. For dwellings that are not within the distance of a compliant hydrant set by SNZ PAS 4509:2008, firefighting water can be provided from on-site storage in accordance with the Code of Practice, such as a dedicated firefighting reserve within the dwelling's water tank or a domestic sprinkler system, which is the standard approach for rural lifestyle lots.

4.4 Summary

The site can be supplied with water from existing WDC mains at Bywell Street, Brinkburn Street and Bushy Beach Road. Restricted connections with on-site storage minimise the load on the network, and firefighting needs can be met by hydrants or on-site storage. Water supply does not present a constraint to the rezoning.

5. Wastewater

5.1 Existing network

There are two WDC gravity sewer mains close to the site:

- A 150mm dia concrete (CC) main in Bywell Street, which ends at a rodding eye adjacent to 13 Bywell Street, 23m from the site boundary; and
- A 150mm dia uPVC main in Brinkburn Street, which ends at a rodding eye about 180m west of the site.

Both mains are at the head of their catchments, so relatively few dwellings already discharge to them. The existing dwelling on the site uses an on-site septic tank.

5.2 Servicing options

There are two likely solutions for foul sewage disposal:

1. **On-site disposal.** All lots will be large enough (at least 5,000m²) to accommodate an on-site septic tank or treatment system and disposal field, designed in accordance with AS/NZS 1547:2012 and the Regional Plan: Water for Otago. The consented subdivision already provides for on-site disposal as an option.
2. **Low pressure sewer (LPS) system.** Each lot has its own storage tank and grinder pump, which pumps into a small-diameter pressure main that discharges to the gravity sewer – probably via a new manhole installed by the developer – at Bywell and/or Brinkburn Streets. The consent notice on the consented subdivision already anticipates lots connecting to the Bywell Street sewer via private pumping lines.



5.3 Preferred option: low pressure sewer

An LPS system is the preferred option for the site, for the following reasons:

- **Environmental.** It avoids the potential environmental and ecological effects of multiple on-site discharges in the coastal environment, close to the coastal escarpment and the hoiho (yellow-eyed penguin) habitat at Bushy Beach.
- **No Council pump station.** Each lot owner owns and maintains their own tank and pump, so Council does not have to take on a centralised pump station.
- **Low loading on existing mains.** Because each pump runs only intermittently, the load on the existing mains is very slight, and pressure systems have no stormwater infiltration, so wet-weather flows do not increase network loading.
- **Cost-effective.** An LPS system is generally cheaper to install than gravity reticulation: pipes are smaller, need not be laid to grade, and far fewer manholes are required.

The receiving mains in Bywell and Brinkburn Streets are within a short distance of Areas A and B, and a pressure main can be extended through the new development to serve Area C. WDC noted during the earlier subdivision that the public sewer may need to be extended to the end of Bywell Street. Any such extension, and the design of the discharge point, would be confirmed with WDC at subdivision stage.

5.4 Summary

Wastewater can be managed on-site or, preferably, by an LPS system discharging to the WDC mains in Bywell and/or Brinkburn Streets. Subject to WDC confirming capacity at the receiving point, wastewater servicing does not present a constraint to the rezoning.

6. Stormwater

6.1 Existing stormwater environment

There is no reticulated stormwater network serving the site. Runoff currently flows overland to the coast, following the natural overland flow paths indicated by the open drains shown on the structure plan. The existing overflow from the South Hill reservoir also discharges onto the property at the end of Brinkburn Street and follows these flow paths.

6.2 Effects of development

Flows will increase because of the new impervious surfaces: roofs, driveways and accessways. However, the development is low density. Up to 25 new dwellings and their accessways across about 43 ha would result in impervious surfaces covering only around 5% of the site, and most of the site will remain in pasture or planting.

On the information currently available, formal stormwater neutrality measures are not considered necessary at the rezoning stage, given that the site discharges directly to the coast and there is no identified downstream reticulated network, built development or flooding constraint that would be adversely affected by increased peak flows.



6.3 Stormwater management approach

The focus of stormwater management should instead be on dispersing flows and controlling erosion, particularly given the steep coastal escarpment and the Coastal Erosion Hazard overlay. Erosion control measures should also aim to remove contaminants from runoff before it reaches the coastal environment. Measures appropriate to the site include:

- spreading discharges over the land (for example, through level spreaders or rock-lined outlets) rather than concentrating them, and avoiding concentrated discharges over the coastal escarpment;
- grassed swales along accessways, as required by the conditions of the consented subdivision, to convey, slow and filter runoff;
- vegetated buffers and the indigenous landscape planting shown on the structure plan, which will filter runoff and stabilise soils; and
- keeping the open drain and overland flow paths shown on the structure plan (including the South Hill reservoir overflow route) free of buildings, so that they continue to convey larger storm events safely.

These measures would be confirmed through a stormwater management plan and an erosion and sediment control plan at subdivision stage.

6.4 Summary

Stormwater from the development can be managed by discharging to the natural overland flow paths, with the emphasis on dispersing flows, controlling erosion and treating runoff rather than detention. Stormwater does not present a constraint to the rezoning.

7. Transport and Access

Transport effects have been assessed separately by Antoni Facey, BE (Civil), CMEngNZ, in a memo dated 23 September 2026 that forms part of the supplementary information package. Please refer to that memo for the full assessment.

In summary, the memo assesses 25 new lots accessed from a private cul-de-sac off Bushy Beach Road and private extensions of Brinkburn Street and Bywell Street, and concludes that:

- the development would generate around 160–175 vehicle movements per day, well below the level at which intersection analysis is needed, and the nearby intersections will continue to operate at Level of Service A;
- the required sight distances can be achieved at the Bushy Beach Road access, and the Brinkburn and Bywell Street accesses are into cul-de-sac turning heads with very low speeds;
- the crash record for the area does not indicate any underlying safety problems;
- internal roads and accesses can be built in accordance with NZS 4404:2010, and no upgrades to the existing road network are required; and
- the transport effects of the rezoning will be no more than minor.



8. Utilities

8.1 Telecommunications

Fibre connections are available in Bushy Beach Road and Bywell Street, and the fibre network could be extended into the development as part of subdivision works. However, wireless broadband is increasingly the more likely option for rural lifestyle lots, for example mobile broadband or satellite services such as Starlink. The consented subdivision was approved on the basis that wireless connections are available.

8.2 Power

Overhead power lines run along Bywell Street, Brinkburn Street, and Bushy Beach Road to OT213/22 (DP 3459) near Bushy Beach. Extensions and upgrades to the network, such as new transformers and underground reticulation within the development, will be required as is normal for greenfield development. The works would be designed with Network Waitaki and funded by the developer at subdivision stage. Underground reticulation within the site would also support the landscape outcomes sought by the structure plan.

Network Waitaki have provided confirmation that the building platforms shown in the structure plan can be provided with connections.

9. Conclusion

This servicing assessment has evaluated the ability of 89 Bushy Beach Road to support the rural lifestyle development enabled by the proposed rezoning and structure plan: up to 25 new dwellings clustered in three development areas.

The site adjoins the existing South Hill residential area and is well placed to connect to existing water, wastewater, roading and utility networks at Bywell Street, Brinkburn Street and Bushy Beach Road. The servicing approaches proposed are standard for rural lifestyle development, and none of them requires public infrastructure upgrades beyond local extensions, including an upgrade to the Bushy Beach Road ridermain, that would be funded by the developer.

The following table summarises the servicing feasibility for each infrastructure component:

Service	Proposed servicing	Feasibility	Upgrades required	Conclusion
Water	Restricted connections with on-site storage; firefighting from hydrants or on-site storage	Feasible	Local extensions, possible contribution to Bushy Beach Road reticulation upgrade	Supports rezoning
Wastewater	LPS to Bywell/Brinkburn Street mains (preferred), or on-site disposal	Feasible	None likely with LPS; possible extension in Bywell Street	Supports rezoning
Stormwater	Discharge to natural overland flow paths, with dispersal, erosion control and treatment	Feasible	None	Supports rezoning
Transport	Refer to Antoni Facey memo (23/09/26)	Feasible	None	Supports rezoning



Service	Proposed servicing	Feasibility	Upgrades required	Conclusion
Utilities	Fibre or wireless; extension of power network	Feasible	Developer-funded extensions	Supports rezoning

Overall, the effects of the rezoning on infrastructure are minor and manageable, and servicing does not present a constraint to the rezoning sought.

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