

Policy

Pressure Sewer Policy

Volume

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1 Adoption

This Policy has been approved for adoption by the Waste and Drainage Manager and the group manager Infrastructure and Services.

Waste and Drainage Manager

Date

Group Manager
Infrastructure and Services.

Date

2 Quality Management

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1.0 Introduction

The Pressure Sewer Policy shall provide guidance to where and how pressure sewer systems can be used in the Whangarei District. The policy has the following scope:

- Provides a definition of pressure sewer systems.
- The application of pressure sewer systems in the district.
- The ownership of various components of the system.
- General requirements for subdivision and development which propose to use pressure sewer systems.
- Roles and responsibilities of stakeholders including the Whangarei District Council (Council), developers, property owners, and householders

2.0 Definition

A pressure sewer system in Whangarei District Council is defined as follows and as shown in Figures 1 and 2:

A complete system wherein sewage is conveyed under pressure generated by pump units located on an identified property or dwelling to a wastewater treatment plant or other wastewater system. A pressure sewer system may include the following elements:

- Pumping unit and chamber, specifically designed for pressure sewer applications, installed on each property.
- Control/Alarm panel that controls the operation of the pump unit containing alarm components, electrical connection to the property and associated circuit breaker.
- Remote data connection, such as telemetry;
- Property discharge line that connects the pumping unit to the boundary kit.
- Boundary kits for each pumping unit, providing a means to isolate the pressure sewer network from a property discharge line and pumping unit.
- A pressure sewer network specifically designed for this application consisting pressure mains, isolation valves, flushing pits and air release valves where required.

Within a sewer network utilising a pressure sewer system there may be gravity or pump up components included.

The pressure sewer system does not comprise the household gravity connection from the gully trap to the pumping unit connection vent. This remains the private line belonging to the property owner.

A 'dwelling' as in accordance with the definition of a 'residential unit' as defined in the Operative Whangarei District Plan (2007) and its amendments.

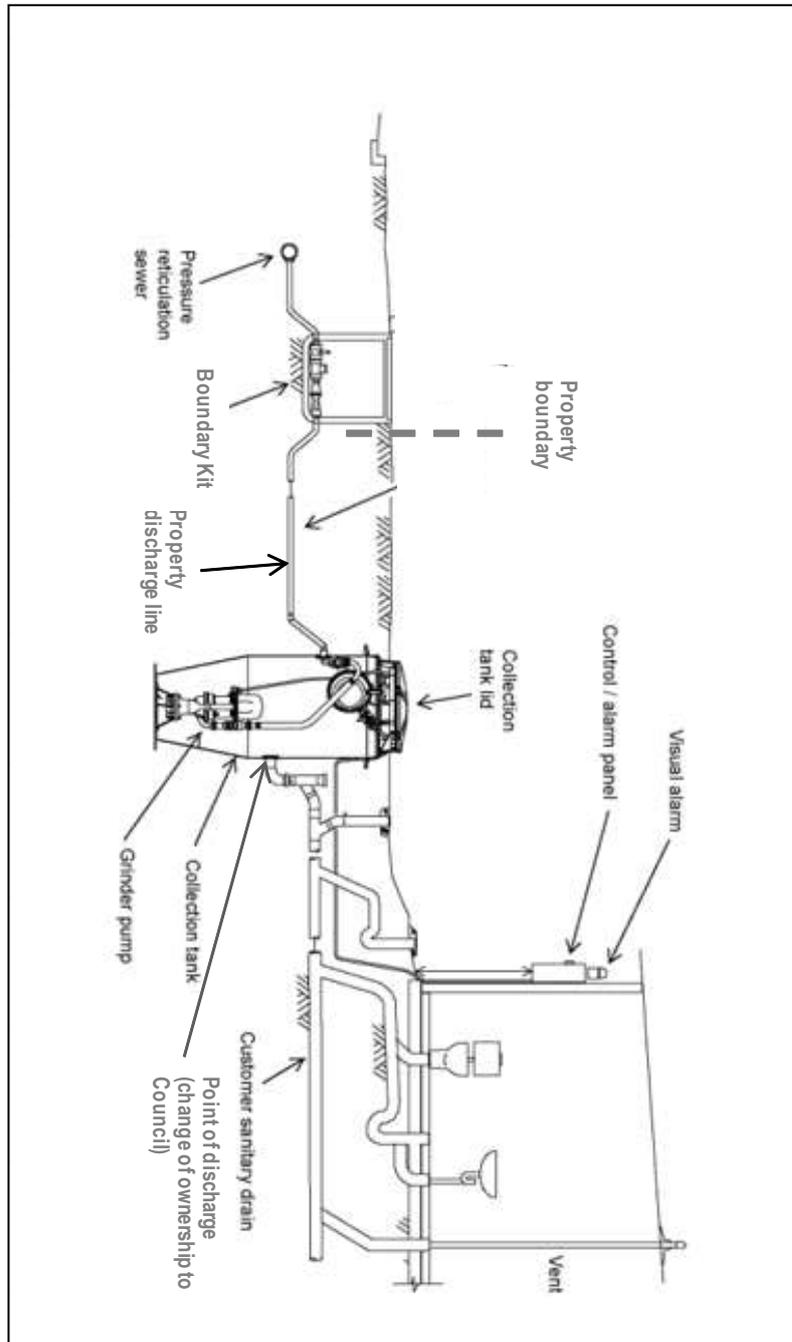


Figure 1: Typical On-property Pressure Sewer System

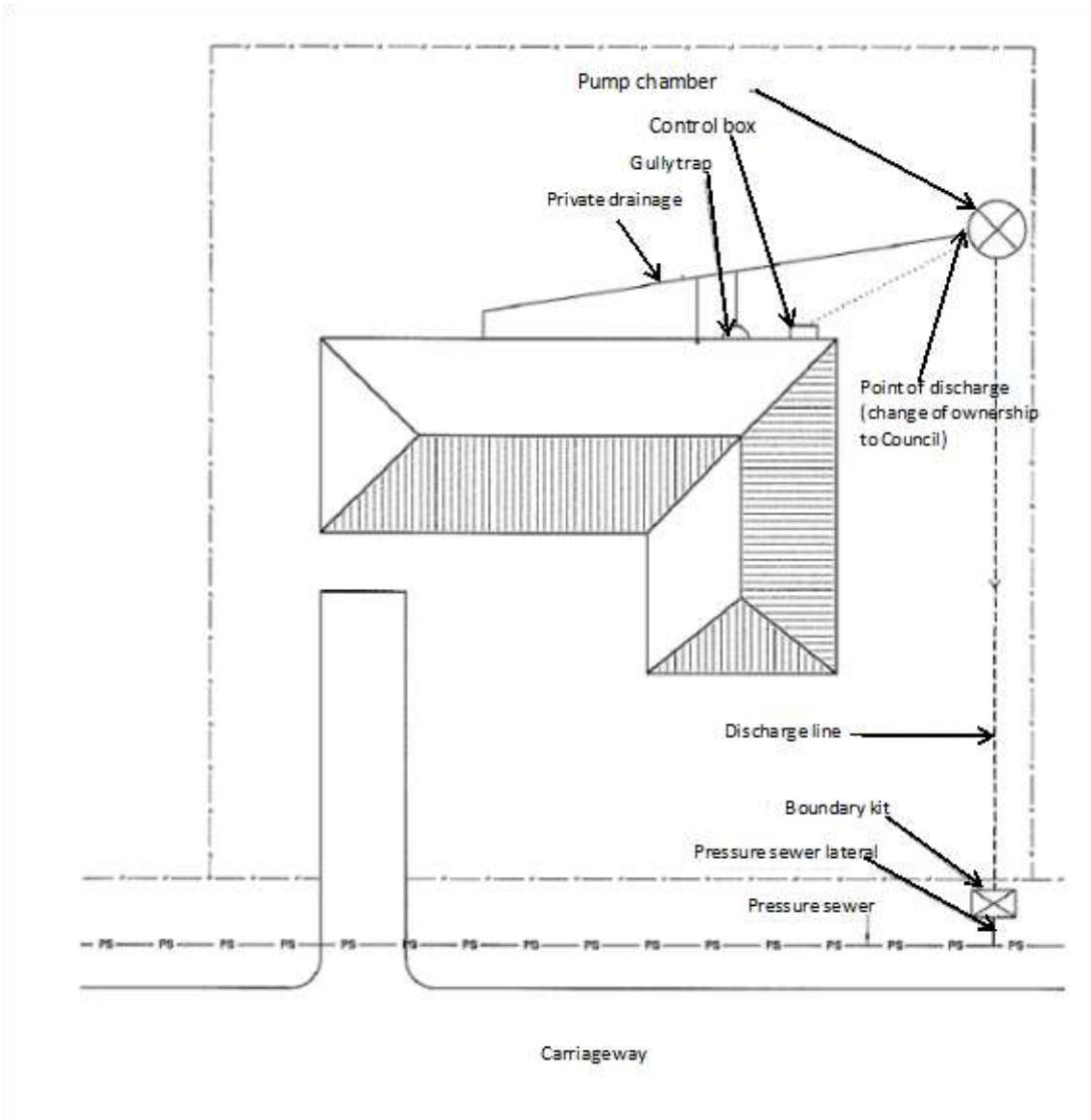


Figure 2: Typical On-property Layout

3.0 Policy Parameters

3.1 Ownership

- The pressure sewer systems (as defined above and including all components from the pump chamber to the reticulation network and including the alarm panel and electrical supply line) shall be generally owned and operated by the Whangarei District Council as a council asset and being a component of its sewer infrastructure network unless otherwise notified.
- Council will require the property developer, body corporate and/or property owner to hand over ownership of the pump unit, alarm panel/control box, discharge line and boundary valve to the Council as vested asset at the time of construction.
- The sewer line from the gully trap to the pump unit belongs to the property owner, and is deemed a private line for which the property owner remains

entirely responsible. It is a requirement that the property owner maintains this in good order.

- The power supply for each pump unit shall be connected to the dwelling's power supply and the costs of power shall be met by the householder. The power supply is for the pump unit only.
- One pump unit servicing multiple dwellings will not generally be accepted as an approved configuration. Any proposal to use this configuration shall be reviewed on a case by case basis and shall be at the discretion of Council's Waste and Drainage Manager.

3.2 Sharing of Pumping Units

- Council requires all dwellings to have their own pressure sewer pumping unit unless agreed otherwise by the Waste and Drainage Manager.
- Council will consider, at the discretion of Waste and Drainage Manager (W&DM), the sharing of pumping units in some circumstances such as unit developments or multiple dwellings located on the same property. In considering these cases, the Waste and Drainage Manager will take into account the potential occupancy of the dwelling/s, potential wastewater flows, storage capacity and electricity supply arrangements.

Where such systems have been approved, Council may accept ownership of pressure sewer pumping units and will undertake responsibility to maintain them at the discretion of Waste and Drainage Manager

The sewer line from the gully trap to the pump unit belongs to the property owner, and is deemed a private line. Council will be responsible only for the pressure sewer system from the pump chamber to the reticulation network (including the alarm panel and electrical supply line) and not for the private line.

- Cross boundary sharing of pressure sewer pumping units will not generally be permitted.

3.3 Easement Requirement

Easements will generally not be required over any part of the "on property" works. However, an easement may be required to be created in the event the property discharge line passes through adjoining private property.

Council may utilise provisions within the Local Government Act that grant Council power to construct works on or under private land or under a building on private land that it considers necessary for sewage.

Council reserves the right to require the creation of an easement on a particular property, so as to ensure the safe ongoing operation of the system, minimisation of any health concerns or the protection of council's property at the cost of the property owner.

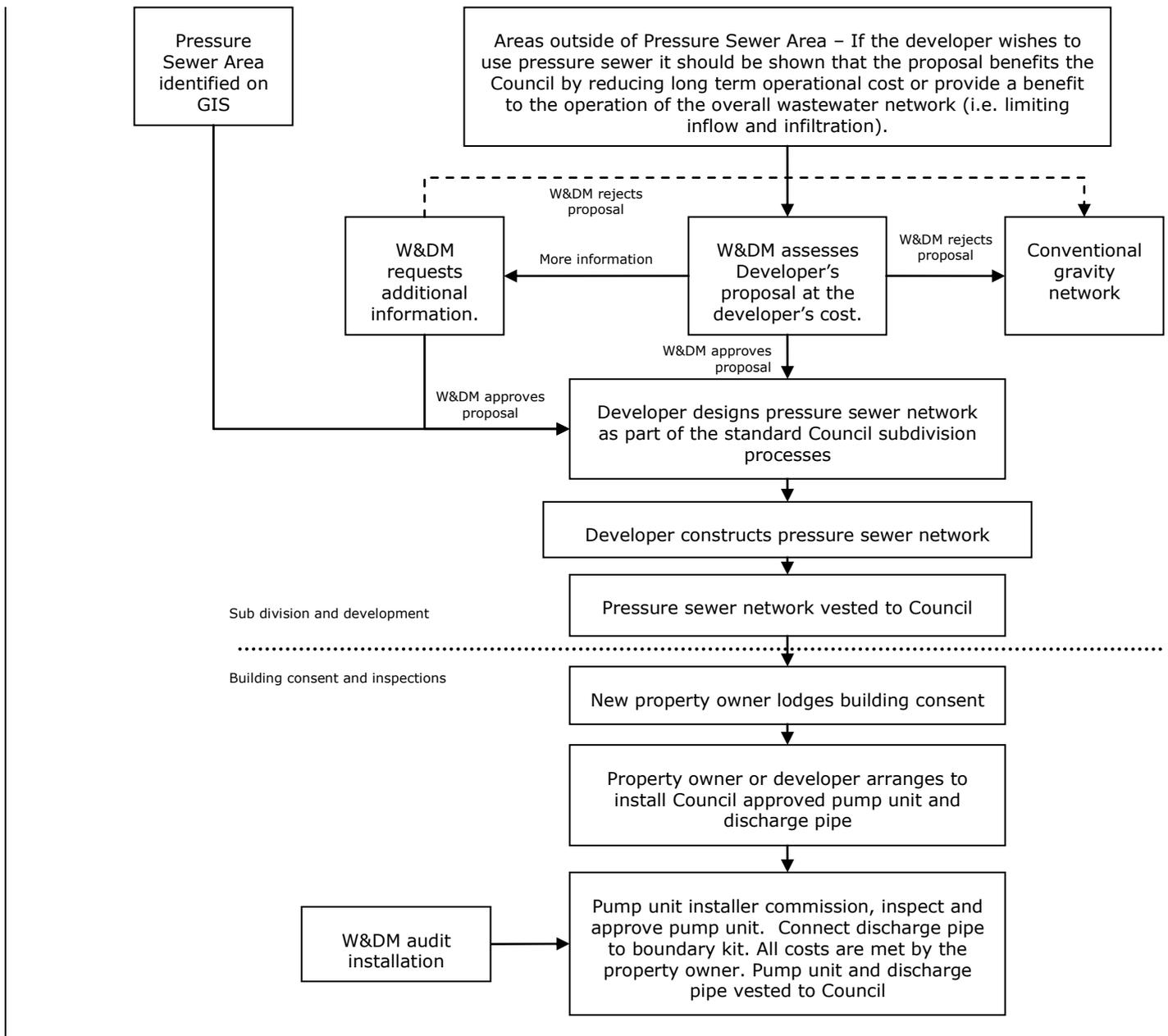
3.4 Point of Discharge

The point of discharge is the boundary between the public sewer and private drain. For pressure sewer systems the point of discharge (as defined by section 4.0 of the Wastewater Bylaw, October 2008) is the upstream end of the pipe fitting which forms the junction with the pump unit chamber (Figure 2).

4.0 Subdivision and Development

Application of a pressure sewer system with an area shall be at the discretion of the Waste and Drainage Manager.

Where developers believe a pressure sewer system will provide benefit to the Council, they may apply to Council to utilise pressure sewer following the process shown in below.



Note: For vacant lots the Consent Notice on the Certificate of Titles for the properties being sold will indicate that the property shall be serviced by a pressure sewer system including general information for potential buyers.

5.0 Application of Pressure Sewer

5.1 Pressure Sewer Areas

Part 7 of the Local Government Act 2002 requires all territorial authorities carry out assessments of water and sanitary services. The primary purpose of these assessments is to ensure that public health is adequately protected and that these services are delivered efficiently to rate payers. As a result of these assessments the Council may identify communities or areas where pressure sewer systems offer the best solution to provide sanitary services.

5.2 Extension of the Wastewater Network Catchment

Council does not intend to extend the existing wastewater network area beyond the boundaries of the urban area of benefit. However the Council may consider proposals outside the area of benefit where there is a public health risk identified or where new subdivisions are approved.

5.3 Private Pump Stations (Pump Ups)

Where property owners require a private pump station to connect to the public sewer (in accordance with Section 9.8 of the Wastewater Bylaw, October 2008); pressure sewer pump units may be considered as an appropriate solution. Unless the property is located within an identified Pressure Sewer Area (5.1 above), and the pumping units meet the technical requirements of a pressure sewer system, the ownership of the unit and discharge pipe shall remain with the property owner and any such units will not be covered by the Pressure Sewer Policy.

5.4 Subdivision and Development

Even though a pressure sewer system may, in some locations, be a lower cost technology, this shall not necessarily mandate its use, as other factors may mitigate against its usage. Accordingly, pressure sewer systems will be considered for new subdivisions or developments where benefit to the Council can be demonstrated by the developer to the satisfaction of the Waste and Drainage Manager.

5.5 Supply of Pressure Sewer Systems

Council will limit the number of pressure sewer technologies it will support in the long term, so as to minimise the need for a large number of spares and inventory, without compromising tender competitiveness.

6.0 Ownership and Responsibilities

6.1 Council shall:

- Own, operate and maintain the pressure sewer system, including responding to call-outs related to pump unit alarms.
- Define acceptable engineering design and construction standards for pressure sewer systems.
- Evaluate and approve proposals for the use of pressure sewer systems.
- Evaluate and approve pump unit suppliers and installers for proposed pressure sewer networks. Maintain and make publically available a list of approved suppliers and installers.

- Review pressure sewer designs to confirm standards are met.
- Inspect and audit at their discretion pressure sewer pump unit installations.
- Maintain as-built and GIS records of pressure sewer systems.
- Maintain a database of all pump serial numbers together with the delivery and installation dates.
- Provide general information on pressure sewer systems to members of the community needing assistance.
- Provide property owners a 'Home Owners Manual' for the daily running of their individual pumping units upon commissioning of the pressure sewer system within their community. The 'Home Owners Manual' will provide an overview of the sewerage system located on their property, details as to what can and cannot be discharged into the system and procedures to follow should the pumping unit's alarm activates.
- Prior to connection of a pressure sewer system to an existing dwelling Council may require that a full audit of the existing properties' electrical systems and drainage be undertaken.

6.2 Householder shall:

(**Note:** The 'householder' may or may not be different to the property owner, and is defined here as being "Those individuals usually resident at a property".)

- Read and understand the contents of the '*Home Owners Manual*' as this details the operation of the system and the actions required if the alarm activates. Property owners shall comply with the requirements of the '*Home Owners Manual*'.
- Immediately notify Council in the event of a pump unit alarm or overflow. Note: The unit is a council property and is not to be repaired, maintained or interfered with by the resident.
- In the event an alarm occurs minimise the risk of a sewage spill occurring. This may include reducing water usage.
- In the event an overflow occurs take all practicable steps to minimise the damage caused by the spill.
- Not discharge into the system any of the substances indicated in the '*Home Owners Manual*' as being inappropriate.
- Limit the volume and flow of discharges to the pressure sewer system to within the pump unit's design capacity.
- Keep stormwater out of the system.
- Be responsible for blockages within the private owned sewer.
- Ensure the Council has access to the pump unit on the property.
- Meet the costs of power for the operation of the pump and as far as practicable maintains the supply of electricity to the pump station. If a power interruption occurs as a result of causes other than supply failure (e.g. intentionally

switching the power off or failing to meet the costs of the supply) the householder shall minimise the risk of spillage and rectify the supply of power as soon as possible. The Council is not liable for any damages that may result from a power interruption.

6.3 Property Owner shall:

- Arrange for the approved pressure sewer unit to be installed.
- Enter into agreement with Council to confirm rights of access and vest ownership of the pressure sewer system in Council together with confirmation that they will have no rights of compensation under the Public Works Act 1981.
- Ensure the householder has a copy of the '*Home Owners Manual*' and an understanding of what to do if an alarm activates.
- Where existing properties are to be serviced and the Council identifies non-compliance in the property's electrical system and/or drainage; the property owner at their own cost shall remedy the defects.
- Decommission the existing on-site sewage system when the pressure sewer system has been commissioned.
- Design and install the pressure sewer system in accordance with Council's Engineering Standards.
- At all times maintain the private drainage system to minimise the entry of storm water or groundwater via inflow or infiltration.
- At all times maintain any pre-treatment units that may be required for the satisfactory operation of a pressure sewer system.

7.0 Operation and Maintenance

7.1 Operation and maintenance

- Operation and maintenance of Council owned parts of the pressure sewer system will be undertaken by Council.
- Council may monitor pumped volumes and/or pump run hours to determine appropriate use of the pressure sewer system or a particular pump unit.
- Any damage to the pressure sewer system that compromises the safety of the property occupants, the dwelling and/or the operation of the sewerage system, will be rectified as soon as practicable once coming to the Council's attention.
- Council may utilise provisions within the Local Government Act and / or Council Wastewater Bylaw to rectify any issues associated with operation of the pressure sewer system. Such provisions may include the recovery of costs due to negligent use or deliberate damage.

7.2 Level of Service

7.2.1 Domestic Premises (as defined by the Wastewater Bylaw)

Wastewater flow, quantity, and quality shall comply with the Wastewater Bylaw (October 2008).

7.2.2 Non Domestic Premises

In general pressure sewer systems are not appropriate for non domestic wastewater. The Waste and Drainage Manager may consider connection of non-residential properties to a pressure sewer system. Factors taken into consideration may include: flow buffering, pre-treatment, peaking factors, and pump configuration.

7.3 Spas and Swimming Pools

Swimming pools, spas and other high water use appliances shall not discharge to the pressure sewer system unless appropriate flow restrictors are installed.

7.4 Modifications to Properties

Changes to wastewater flow from a property, for example due to change in land use or building extension, may require review and upgrade of the pressure pumping unit and associated equipment. This may require review of the wastewater development contribution.

Building over discharge lines located on private property shall comply with the Council's "*Building over public sewers policy*" dated September 2010 (and any subsequent amendments to that policy).

Supporting Documentation on Pressure Sewer Systems

- Whangarei District Council Pressure Sewer Technical Guidelines
- Home Owner's Manual- Pressure Sewer Systems
- Water Services Australia, 2007. Pressure Sewerage Code of Australia. WSA 07-2007
- Whangarei District Council, Environmental Engineering Standards:
- Whangarei District Council, Wastewater Bylaw
- Whangarei District Council, Building Over Public Sewer Policy
- Local Government Act
- Public Works Act
- Whangarei District Council Development Contribution Policy
- Operative Whangarei District Plan 2007
- Whangarei District Council Trade Waste Bylaw