

# Wastewater Policy

---

## 1. Introduction

- 1.1. This policy outlines the various types of wastewater disposal systems available to service urban and rural residential properties in the Waimakariri District. It sets out the operating, ownership and funding requirements for these systems and outlines some specific requirements for funding and maintenance of scheme components that are located on private property.
- 1.2. The policy also provides criteria to be used when determining whether a new residential development should be serviced by either a gravity or pressure wastewater system.

## 2. Purpose

- 2.1. The policy seeks to ensure wastewater disposal systems are designed and operated to avoid contamination of ground water, surface water, and land.
- 2.2. The policy outlines the Council's requirements for ownership vesting, funding, management and operation of new and existing wastewater schemes that will ensure the schemes can be operated and managed efficiently and effectively.
- 2.3. The policy seeks, through criteria, to ensure that new developments are serviced by the wastewater disposal system that is most appropriate to each new development location.

## 3. Scope

There are three general types of community wastewater systems operating in the Waimakariri District. These are gravity, STEP and pressure systems.

- 3.1. **Gravity Systems** convey effluent away from connected properties directly to Council gravity reticulation. No treatment or pumps are required within the connected properties. Gravity systems rely on a combination of ground elevation, slope and pump stations to effectively convey effluent from properties to downstream wastewater treatment facilities.
- 3.2. **STEP Systems** (Septic Tank Effluent Pumping) systems are those where raw sewage is collected in privately owned septic tanks for primary treatment and screening (filtering). Following primary treatment, the effluent is stored on site until sufficient quantity is accumulated to trigger pumping to a designated community treatment plant for further treatment and disposal.
- 3.3. **Pressure Sewer Systems** (PSS) collect and store raw sewage from each connected household in a privately owned single storage and pumping unit located on each property. The household's effluent accumulates in the storage unit until sufficient quantities are accumulated to trigger the macerating pump, which grinds the effluent into slurry. The slurry is pumped into the Council's pressure sewer main on the road reserve and conveyed under pressure to a designated community treatment plant for treatment and disposal.

## **4. Policy objectives**

This policy seeks to ensure reticulated community wastewater systems provide an appropriate level of service for the conveyance and treatment of wastewater.

## **5. Wastewater scheme provisions**

Section 5.1 – 5.5 provisions apply to all wastewater schemes: Gravity, STEP and Pressure Systems.

### **5.1. Ownership and management of community wastewater schemes**

5.1.1. Following construction and installation of newly developed community wastewater schemes, the Waimakariri District Council will accept responsibility for scheme ownership, management, operation and maintenance on behalf of the residents, provided that:

- The plant can be operated and maintained in a cost effective manner
- The plant is designed and constructed to comply with the Council's Engineering Code of Practice
- The plant and the discharge it produces can be demonstrated to comply with all resource consent conditions.

5.1.2. Prior to any wastewater system vesting in the Council, the Council will audit the completed works following inspections as part of the subdivision consent process. The audit will include the following:

- The standard of design and construction
- The standard of maintenance required prior to transfer of ownership
- The performance requirements that the plant must meet
- Testing and commissioning in the presence of Council officers.

### **5.2. Cost recovery**

5.2.1. All schemes:

The costs of scheme management will be recovered from the residents by way of an annual rate across the scheme on each property serviced.

5.2.2. New Schemes:

The Waimakariri District Council will advise developers and land owners within the area to be serviced by the community wastewater scheme of the likely annual operating costs of the community systems per lot serviced. It will seek an arrangement with the developer that ensures that prospective purchasers of lots in the development are made aware of their potential annual commitment for operating costs. The Council will not takeover schemes where it considers the annual charge will be excessive for future property owners.

### **5.3. Wastewater schemes to meet environmental standards**

All community wastewater schemes must be designed and will be operated and maintained to ensure they meet all resource consent conditions during the period covered by the consent.

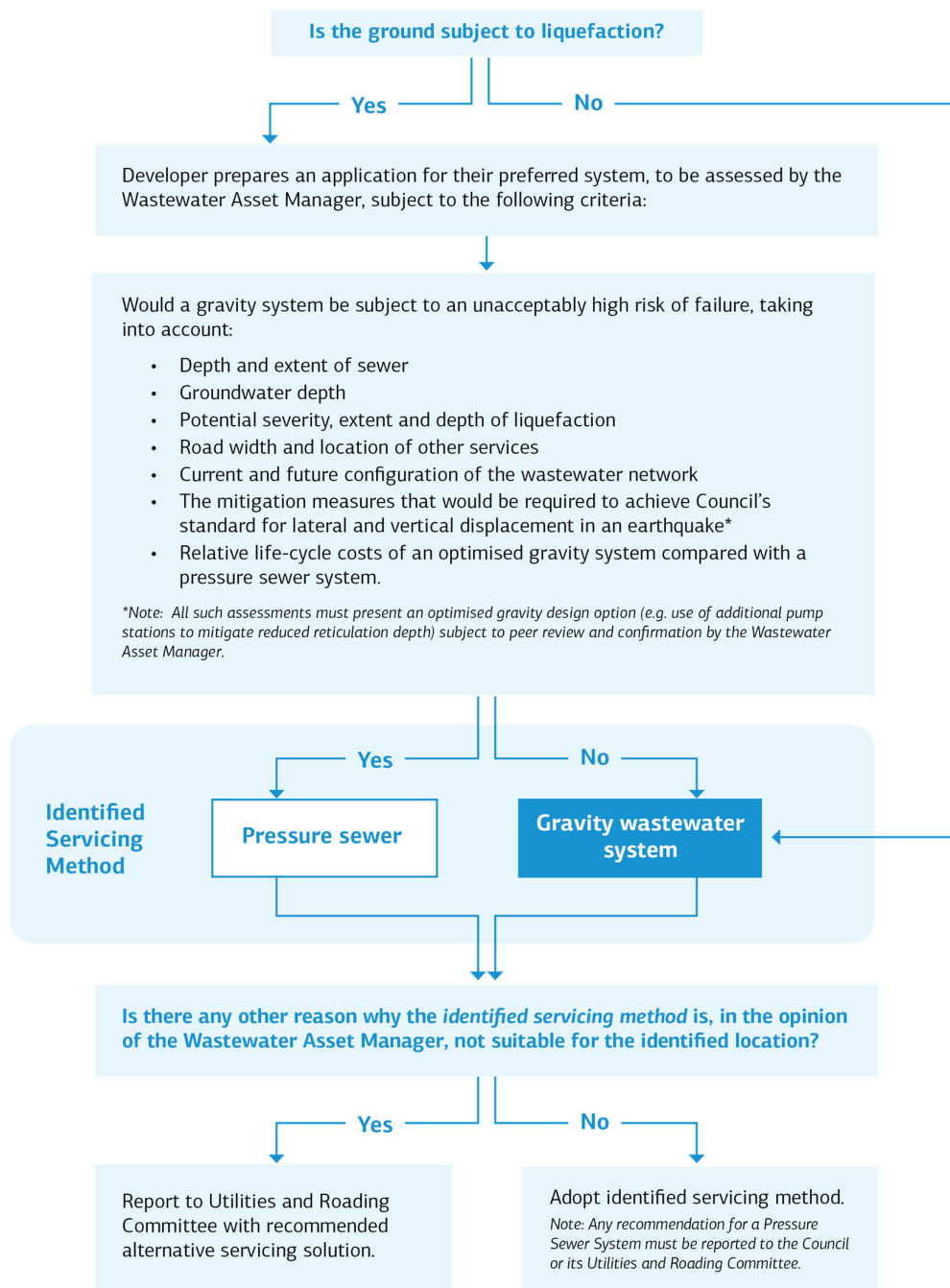
### **5.4. New connections**

5.4.1. All customers seeking to connect to a Council wastewater scheme must fill out the "Application to Connect to the Council's Sewer" form, available on the Council's website and submit this to the Wastewater Asset Manager.

5.4.2. All installation and new connections must comply with the Waimakariri District Council Engineering Code of Practice.

5.5. Process for selection of wastewater servicing method for residential development

Figure 1: Selection of Wastewater Servicing Method for new Urban Developments:



*\*The proposed design of a gravity system must achieve a standard that effectively restricts the displacement of gravity sewers to 50mm vertical, 100mm horizontal in an Ultimate Limit State (ULS) (0.35g) event.*

The Council notes that non-gravity wastewater systems will not be permitted unless recommended by the Wastewater Asset Manager and subsequently approved by either by the Council or its Utilities and Roding Committee.

## 5.6. Required criteria for pressure sewer system servicing

If it is decided that a new residential development will be serviced by a Pressure Sewer System then the following criteria must be met:

- The cost of the on-site pump station will be met by the developer
- The ongoing cost of operation and maintenance of all system components located on the customer's property will be met by the customer
- The property is marketed to potential purchasers stating it includes a Pressure Sewer System, and that all potential maintenance costs associated with this system will be met by the customer (property owner).

## 6. Disputes

6.1.1. If a dispute arises from the administration of this policy, the matters shall be referred to the appropriate Council Committee for a hearing and a decision, in the first instance.

6.1.2. Disputes not resolved by Council Committee may be deferred to a subsequent Council meeting.

## 7. Step schemes

### 7.1. Ownership of pumps and septic tanks

7.1.1. Septic tanks and pumps located on properties connected to STEP schemes are owned and must be maintained by the customer (property owner).

Notwithstanding this provision, the Council has, in the past, assumed ownership of septic tank pumps on existing properties of customers with STEP systems on the following schemes:

- Oxford (individual STEP connections to the Oxford gravity wastewater system)

The Council undertakes repairs to these pumps and pipework outside the property boundary on these connections as and when they malfunction.

7.1.2. Any new customer, following the date of adoption of this policy, that requires a STEP / pressure sewer connection to a public wastewater scheme will be required to pay for the installation and ongoing maintenance of all system components located on their private property. All components located on their private property will be owned by that customer.

7.1.3. Existing customers with STEP connections to the Oxford scheme as at the date of adoption of this policy, and who require replacement pumps at any future time, will have the ownership of all system components on their private property transferred to, and vested in that customer, following the replacement of their pump.

7.1.4. Regardless of pump ownership, if any customer disposes of inappropriate solid objects into the pump system, then that customer is responsible for any associated repair or blockage removal costs.

7.1.5. In all cases the customer retains ownership of the septic tank, the pipe from the house to the tank, and the pipe from the pump chamber to the property boundary.

### 7.2. Maintenance provisions

The Council undertakes a regular maintenance programme for septic tanks on all its STEP schemes. The Council cleans sludge out of septic tanks on all connected properties as required typically once every three years, funded through rates on these schemes.

### 7.3. Power costs

For all STEP and pressure sewer schemes the costs of power to operate tanks and pumps is the responsibility of the property owners.

#### **7.4. Individual STEP connections to gravity schemes**

- 7.4.1. If a sewer connection to an existing gravity scheme is not possible, the property owner may apply in writing to the Council for permission to install an individual pumping (STEP) / pressure sewer (refer below section) system that will connect into the Council's gravity system.
- 7.4.2. The application must include drawings and measurements of ground levels on the property which demonstrate that the sewer connection cannot be serviced by gravity. The application must include a plan drawn to scale clearly outlining proposed pipeline and cable positions and lengths. The design must be approved by the Council's Wastewater Asset Manager before a building consent application for the connection is sought.

#### **7.5. Septic tank siting**

The customer will need to consider proximity of the septic tank to the dwelling to ensure the tank siting does not impinge on the dwelling's foundation loading (e.g. to protect foundation stability and performance in earthquake events) or to any water bore within that property or neighbouring property. The siting of the tank should allow access by maintenance vehicles for cleaning or repair. The tank siting needs to comply with requirements of the New Zealand Building Code Clause B1 and shall also avoid areas of flooding and overland flow paths.

#### **7.6. Site layout specifications**

All STEP connections shall comply with Standard Drawing 355A Sheet 600 "*Septic Tank on Council reticulated STEP schemes*".

### **8. Pressure sewer schemes**

#### **8.1. Ownership**

The effluent storage chamber, macerating pump, and lateral located on the properties of customers connected to a Pressure System are all owned by the customer (property owner). The point at which ownership of scheme components transfers to the Council is at the isolating valve located in the toby box at or near the property boundary.

#### **8.2. Maintenance provisions**

All maintenance and operating costs of pumps, storage chambers and private laterals are the responsibility of the customer.

#### **8.3. Power costs**

The customer is required to meet all power costs of operating the macerating pump on the customer's property.

#### **8.4. Individual pressure system connections to gravity schemes**

- 8.4.1. If a sewer connection to an existing gravity scheme is not possible, the property owner may apply in writing to the Council for permission to install an individual pressure system that will connect into the Council's gravity system.
- 8.4.2. The application must include drawings and measurements of ground levels on the property which demonstrate that the sewer connection cannot be serviced by gravity. The application must include a plan drawn to scale clearly outlining proposed pipeline and cable positions and lengths. The design must be approved by the Council's Wastewater Asset Manager before a building consent application for the connection is sought.

#### **8.5. Pump and chamber siting**

The customer will need to consider proximity of the pump and chamber to the dwelling to ensure its siting does not impinge on the dwelling's foundation loading (e.g. to protect foundation stability and performance in earthquake events). The siting of the tank should

allow access by maintenance vehicles for cleaning or repair. The chamber siting needs to comply with requirements of the New Zealand Building Code Clause B1.

**8.6. Site layout specifications**

All pressure sewer connections shall comply with Standard Drawing 355B Sheet 600 *“Lateral Connection for single residential property on pressure sewer Council reticulated schemes”*.

**9. Responsibilities**

9.1. This policy sits with the 3 Waters Unit.

9.2. All processes implemented under this policy will be overseen by the 3 Waters Manager.

**10. Questions**

Any questions regarding this policy should be directed to the 3 Waters Manager in the first instance.

**11. Effective date**

2 May 2023

**12. Review date**

2 May 2029

**13. Policy owned by**

General Manager, Utilities and Roading

**14. Approval**

Adopted by Waimakariri District Council on 2 May 2023