

# Appendix C - Solid Waste Risk Assessment

Waimate 2020

## APPENDIX C - Solid Waste Risk Assessment

The following is a description of the Solid Waste collection and disposal system including an assessment of risks to the environment presented by each activity. A fuller description of current and planned activities is available in the Solid Waste Management Plan and the Solid Waste Asset Management Plans.

Solid Waste activities can be divided into the following categories:

- Closed Landfills
- Cleanfills
- Recycling Drop-off sites
- Waimate Resource Recovery Park
- Refuse and Recycling Collection
- Hazardous Waste
- Private burning / burial

### 1.0 Closed Landfills

There are no Council landfills accepting municipal solid waste in the District.

All have been closed and have resource consents with monitoring conditions (See Appendix C). The consent applications included an Assessment of Environmental Effects (AEE).

The following have samples taken at least annually to check for most likely contaminants:

CRC972277 Otaio Landfill

CRC972271 Hook Landfill

CRC972273 Makikihi Landfill

CRC972269 Glenavy Landfill

CRC972281 Waihao Landfill

CRC972267 Waimate Landfill

The following consents for very small landfills only require Council to ensure cover material is secure:

CRC972279 Upper Pareora Landfill

CRC972275 Morven Landfill

When considering the solid waste system, closed landfills are likely to have the most impact on water sources. Sample results however are usually a small fraction of the MAV. A report including sample chemical results is supplied to ECan annually.

It is known that older less well documented landfills existed in the District. There are only three others whose locations are known to staff. These are:

End of Galletleys Road north of St. Andrews

Garlands Road.

North Branch of the Waihao River just upstream from SH 1 bridge.

Within the District, there is likely to be a smaller number of older landfills of unknown location that may present a small risk to the community. There is also anecdotal evidence of a large number of private on-farm disposal pits.

### 2.0 Cleanfills

Staff are aware of two current cleanfills; one is east of the old Waimate landfill site, with restricted access off McNamara's Road. (See Appendix C). The other is a small disused shingle pit on Blue Cliffs Road, approximately 1 km east of St. Andrews Val Number 2511003300.

These should contain only the following materials:

UNCONTAMINATED SOIL, CLAY, ROCK, BRICKS, CONCRETE

A sign to this effect is erected at both sites.

Although a level of wood is allowable staff are aware of some contamination being

# Waimate 2020

present – small quantities of metal. To staff's knowledge there is no household waste deposited at these sites.

There should be minimal if any detectable effect on water sources from this activity.

## 3.0 Recycling Drop-off sites

At present there are 4 sites (1 large, 3 small) utilized for the collection of dropped off clean recyclable material (See Appendix L). They are:

Waimate Resource Recovery Park

John Street (Waimate)

Blue Cliffs Road (St. Andrews)

Hunter (Backline Road)

In the future Council intends to have Recycling Drop-off sites at each rural school. These will collect small quantities of material from the local rural communities.

The material would be transported off-site most likely once or twice a month and it is not intended to have long-term storage at these sites.

Some schools may opt to process the food waste they create by small scale composting or worm farming.

In any event these activities should only be handling clean material with no liquids and should present a minimal risk to the environment / community.

## 4.0 Waimate Resource Recovery Park

This is the main site in the District where solid / garden wastes and recyclables are accepted, stored and transferred. The site is located on the closed landfill site near Waimate Creek and the end of Racecourse Road (See Appendix L). Emergency and Operational Plans exist for this site.

The operation involves:

- Solid Waste being placed into large skips, which are covered overnight. They are transported to landfill at Timaru when full. This is approximately weekly.
- Garden Wastes are piled and mulched periodically (about every 3 months). The mulch is taken off site by a local nurseryman to be converted to compost.
- Recyclables are stored in various containers and are dry in nature. They are stored for varying lengths of time.

Any potentially contaminated run-off or liquids are prevented from direct entry into the normally dry Waimate Creek bed. Instead it is directed into manholes with cloth filters before entering the soils below. In low risk areas the run-off is directed into surface channels at least 90m long before entering the creek bed.

## 5.0 Refuse and Recycling Collection

Contractors collect refuse and recyclables weekly using the attached route (See Appendix L).

The refuse is placed by the kerb / side of the road by customers in either:

- Official Refuse Bags (Urban areas only)
- 240 litre Wheelie Bins

The collection services a large portion of the District. The refuse is transported directly to Timaru District Council's Landfill at Redruth in Timaru without going through a transfer station.

Residents in other areas must transport their refuse into either Waimate or Timaru. Hakatamea residents are able to access services in Kurow as an agreement exists with Waitaki District Council.

Recyclables are placed in a 60 litre open topped crate by the kerbside. The collectors pick up and sort the material en route. Wind blown or accidentally dropped material potentially can enter the environment. Materials are clean and inert and the potential for harm is minor.

There is the risk of mainly light wind-blown refuse entering the environment either from the customers' activities or during and soon after emptying of bins into the

truck's hopper.

Actions have been taken to lessen the risk of the latter and there has been an improvement in this area.

Council also directly provides a seasonal refuse collection at several camping sites on the shores of the Waitaki lakes. This is mainly during the Christmas and New Year periods.

A private company offers a refuse collecting skip service. A business also contracts with a transport firm to transfer their solid waste directly to landfill at Timaru. These are the only two private solid waste services known to operate in the District.

## 6.0 Hazardous Waste

There is no site within the District suitable to knowingly accept domestic or commercial hazardous waste from the public. However services have been provided to lessen the likelihood of some hazardous waste streams being disposed of into the environment:

- Used Oil – a lockable 2000 litre steel tank is provided at the Waimate Resource Recovery Park. Domestic quantities of used oil can be accepted by the Operator. The tank has concrete bunding to contain spills and a roof to prevent the collection of rainwater.
- Agrichemical collection – a region-wide collection of unwanted / deregistered agrichems has been undertaken. The objective was to prevent poorly stored agrichemicals entering the environment. This project has removed the vast majority of unwanted agrichems from private properties over a five year period. Approximately 25 tonnes has been removed from the District in the first three years.

The methodology used was designed to maximize participation from the rural public within a targeted geographic area. All property occupiers were contacted by mail and phone to assess need for the service. Chemicals were collected from farms by fully trained contractors. The material was appropriately neutralized / disposed of by Ministry for the Environment contractors.

## 7.0 Private burning / burying of solid waste

Current rules allow burial of solid waste on the property that generates it. Burning is also allowable provided it does not create a nuisance or it is a limited fire season.

## 8.0 Solid Waste Risks

The risks to public health stem from waste or their byproducts entering the environment and thus contaminating the groundwater systems.

The following sources of risk have been identified:

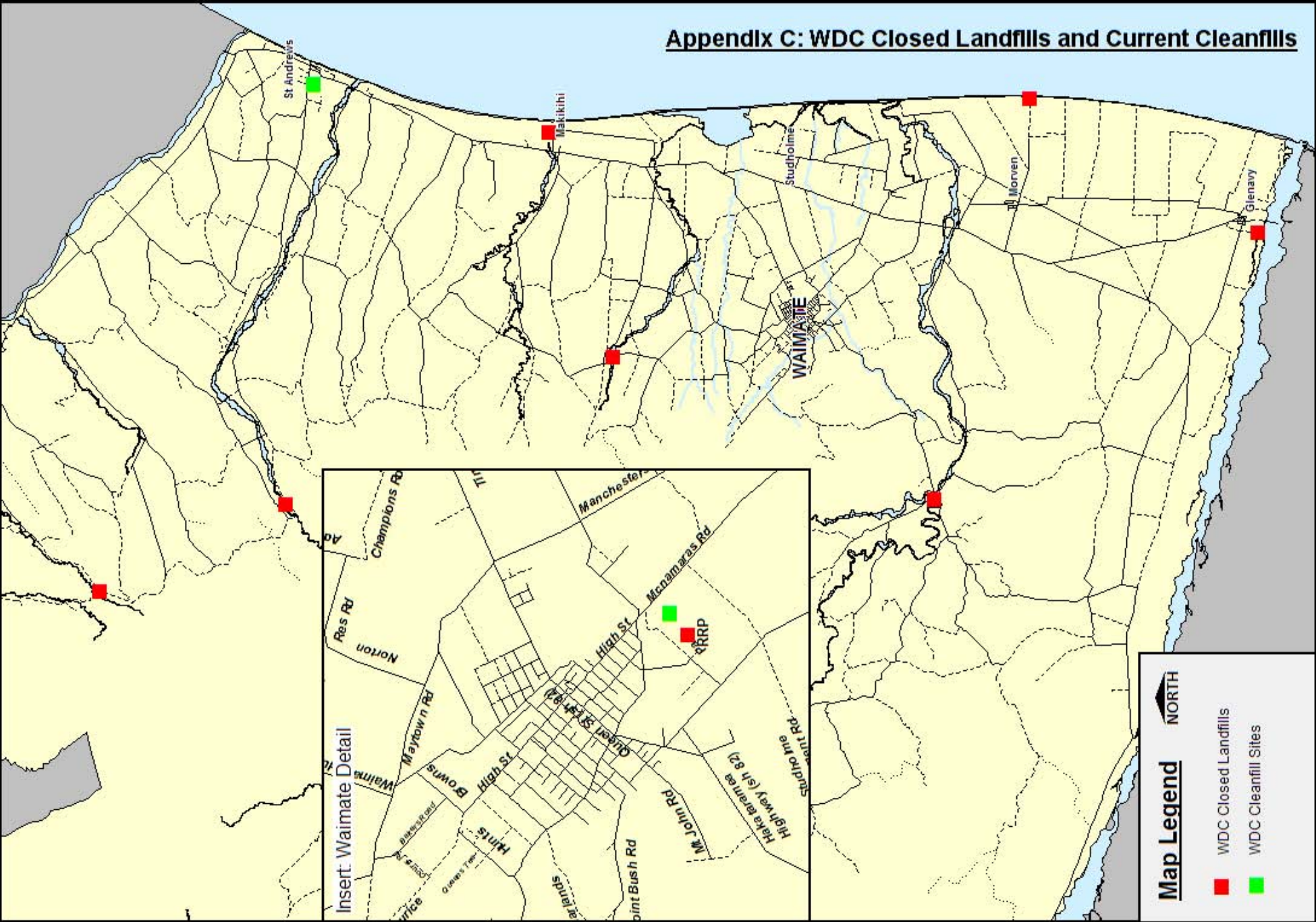
- Closed Landfills where contaminants enter the surrounding environment usually via leachate.
- Cleanfills where unauthorized waste contaminates the surrounding environment usually via leachate.
- Recycling Drop-off where materials escape containers or release contaminants if not clean.
- Resource Recovery Park where litter is blown into surrounding environment or contaminants escape containing measures.
- Refuse and Recycling Collection where during operations littering of the environment occurs. The refuse truck being involved in a serious traffic accident would result in gross littering.
- Hazardous Waste where contaminants enter the environment. This is mainly through careless storage on private property.
- Private burning or burial where contaminants are released into the air or groundwater.

Refer to the following page for a summary of the risk areas.

# Waimate 2020

	Exposure type	Probability	Consequences	Level of Risk
Closed Landfills	where contaminants enter the surrounding environment usually via leachate.	Unlikely	Moderate	Moderate Risk
Cleanfills	where unauthorized waste contaminates the surrounding environment usually via leachate.	Rare	Minor	Low Risk
Recycling Drop-off	where materials escape containers or release contaminants if not clean.	Rare	Minor	Low Risk
Resource Recovery Park	where litter is blown into surrounding environment or contaminants escape containing measures.	Rare	Minor	Low Risk
Refuse and Recycling Collections	where during operations littering of the environment occurs. The refuse truck being involved in a serious traffic accident would result in gross littering.	Rare	Minor	Low Risk
Hazardous Waste	where contaminants enter the environment. This is mainly through careless storage on private property.	Unknown	Moderate	Moderate Risk
Private burning or burial	where contaminants are released into the air or groundwater.	Quite common	Moderate	Moderate Risk

# Appendix C: WDC Closed Landfills and Current Cleanfills



# *Waimate 2020*