

Regional Plan: Waste for Otago

Proposed Plan Change 1 (Dust suppressants and landfills)



As amended by Environment Court
Decision No. [2021] NZEnvC 185
Decision No. [2022] NZEnvC 91
Decision No. [2022] NZEnvC 26
Track changes version
22 June 2022

Introduction

The Otago Regional Council has prepared Proposed Plan Change 1 (Dust suppressants and landfills) to the Regional Plan: Waste for Otago. Proposed Plan Change 1 (Dust suppressants and landfills) amends existing provisions for:

- Use of dust suppressants and waste oil, and
- Minimum standards for new landfills.

This document should be read in conjunction with:

- Section 32 Evaluation Report; and
- Regional Plan: Waste for Otago (operative as at April 1997).

Amendments to the Regional Plan: Waste for Otago as a result of Proposed Plan Change 1 (Dust suppressants and landfills) are shown as follows:

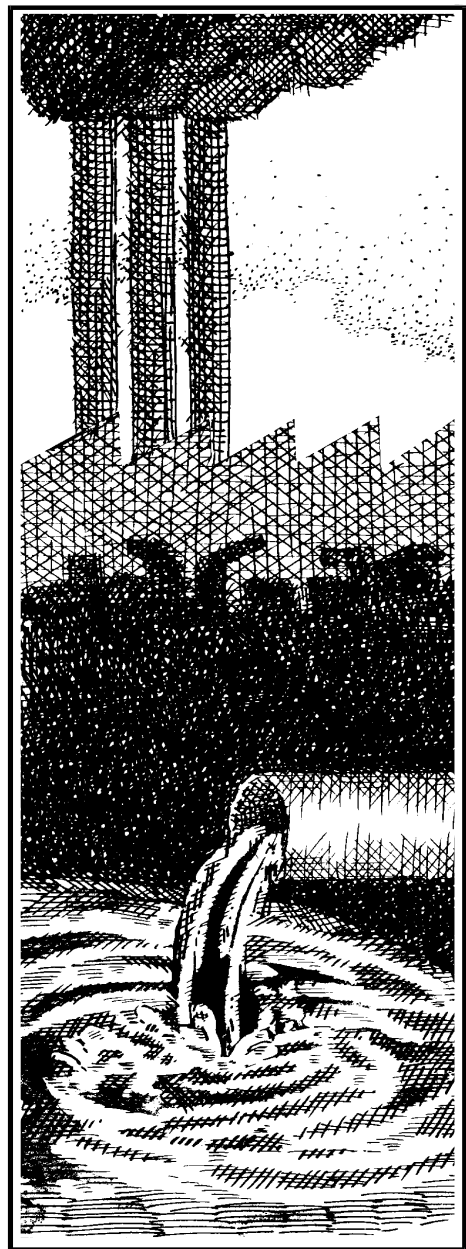
- Red text shows amendments (underlined shows new wording and ~~strike through~~ shows deleted wording).

Amendments to Proposed Plan Change 1 as a result of Environment Court Decision Decision No. [2021] NZEnvC 185, Decision No. [2022] NZEnvC 91 and Decision No. [2022] NZEnvC 26 are shown as follows:

- Green text indicates further changes agreed to by the parties at mediation (double underline shows new wording and ~~double strike through~~ showing deleted wording).

6

Hazardous Substances and Hazardous Wastes



6.1 Introduction *[Unchanged]*

6.1.1 *[Unchanged]*

6.1.2 Types of hazardous wastes

Typical types of hazardous waste identified in the Otago region include:

6.1.2.1 *[Unchanged]*

6.1.2.2 Waste **lubricating** oil

Waste **lubricating** oil accounts for possibly the largest quantity of low toxicity waste generated. All motor vehicle users generate waste oil and it is also produced wherever machinery is used. Oil has adverse environmental effects on any receiving waters or land. The toxicity of oil derives from heavy metal additives or combustion products.

The Waste Lubricating Oil Survey of Otago (Otago Regional Council 1991) estimated that 700,000 litres of waste **lubricating** oil are generated in Otago annually. Of this, 250,000 litres are re-refined for fuel, and a further 200,000 litres are re-refined for lube use. Due to the availability of cheaper overseas oil the volume re-refined for lube use in Otago has significantly decreased over recent years. There are also problems in the refining process, as disposal of acid tar is required.

Over 200,000 litres of waste **lubricating** oil per year is disposed of by inappropriate or unknown methods, or is being stored prior to treatment or disposal. Waste **lubricating** oil has been disposed of into the ground, burnt, or spread over roads as a dust suppressant.

Re-refining waste **lubricating** oil for use as a fuel for industrial use can potentially use much of the waste **lubricating** oil produced in the South Island.

6.1.2.3 - 6.1.2.5 *[Unchanged]*

6.1.3 [Unchanged]

6.2 Hazardous substances and hazardous waste issues

6.2.1– 6.2.4 [Unchanged]

6.2.5 Hazardous substances and hazardous wastes have an adverse effect on the environment.

Explanation

Adverse environmental effects, such as the contamination of water or soils, can result from spills, unsuitable storage, inappropriate usage and disposal. This includes agricultural chemicals and the spreading of waste oil on roads.

Objectives 6.3.1, 6.3.2

Policies 6.4.1 - 6.4.12

6.2.6 [Unchanged]

6.3 Hazardous substances and hazardous waste objectives

6.3.1 To avoid, remedy and mitigate the risk to the environment and human health from hazardous substances and hazardous wastes.

Explanation

Otago's environment, including its communities, must be protected from the adverse effects of hazardous substances and hazardous wastes, associated with legitimate activities, or which arise by way of accidents.

Policies 6.4.1 - 6.4.12

Methods 6.5.1 - 6.5.25

Rules 6.6.1 - 6.6.~~34~~

6.3.2 [Unchanged]

Principal reasons for adopting hazardous substances and hazardous wastes objectives [Unchanged]

6.4 Hazardous substances and hazardous waste policies

6.4.1 - 6.4.9 [Unchanged]

6.4.10 To ~~discourage prevent waste~~ oil being used as a dust suppressant and provide for the use of safer alternatives.

Explanation

In parts of ~~Central~~ Otago, waste oil ~~is~~ has historically been used as a dust suppressant on roads. This practice can give rise to environmental contamination as a consequence of heavy metals and other noxious elements within the oil entering the ground in the areas treated, and water bodies where runoff occurs. Wind or traffic derived dust can spread the contamination and, depending on the nature of the substances, these can be a hazard to public health. Present technologies identify lead concentrations to be of greatest concern. With safer alternatives now more readily available, waste oil ~~should no longer must not~~ be applied as a dust suppressant.

~~In the absence of other practical alternatives, continuation of this practice is expected. As the activity does involve a discharge to land, and in some cases results in contamination of water, it is a practice that should be undertaken with care.~~

Methods 6.5.3, 6.5.22, 6.5.25

6.4.11 - 6.4.12 [Unchanged]

6.5 Hazardous substances and hazardous waste methods

In meeting the objectives and in carrying out the policies relating to hazardous substances and hazardous wastes the Otago Regional Council will:

6.5.1 - 6.5.5 [Unchanged]

6.5.6 - Advocate to central government to promote the recycling and reuse of waste ~~engine~~ oil by the removal of positive disincentives (duty and tax) and the adoption of policies to promote reuse, on the basis of environmental damage resulting from dumping of this hazardous waste;

6.5.7 - 6.5.22 [Unchanged]

6.5.23 Include a rule in this Plan which controls the discharge of ~~oil as a~~ dust suppressant ~~s on to formed roads~~;

6.5.24 - 6.5.25 [Unchanged]

6.6 Hazardous substances and hazardous waste rules

6.6.1 [Unchanged]

6.6.2 Discharge of dust suppressants ~~oil or substances containing oil~~ (permitted activity)

The discharge of ~~oil or substances containing oil~~ as a dust suppressant onto or into land on formed roads is a permitted activity, provided that:

- (a) The dust suppressant is not a hazardous substance; or has a lead concentration of less than 100 mg/L; and
- (b) The dust suppressant is approved under the Hazardous Substances and New Organisms Act 1996 and the use and discharge of dust suppressant is undertaken in accordance with all conditions of the approval to be applied to the road at a rate and manner whereby there is no run-off from or ponding on the surface of the road; and
- (c) The discharge does not produce an objectionable odour, or a conspicuous oil or grease film, scum or foam in any:
 - (i) Lake, river or natural wetland Regionally Significant Wetland; or
 - (ii) Drain or water race that flows to a lake, river, natural wetland Regionally Significant Wetland or coastal marine area; or
 - (iii) Bore or soak hole; and
- (d) The discharge is not undertaken in a manner that results in ponding or overland flow that enters any:
 - (i) Lake, river, natural wetland Regionally Significant Wetland or coastal marine area; or
 - (ii) Drain or water race that goes to any lake, river, natural wetland Regionally Significant Wetland or coastal marine area.

6.6.3 Discharge of dust suppressants ~~oil or substances containing oil~~ (discretionary activity)

The discharge of ~~oil or substances containing oil~~ as a dust suppressant onto or into land on formed roads not in accordance with Rule 6.6.2 is a discretionary activity where:

- (a) The discharge is not permitted by Rule 6.6.2; and
- (b) The dust suppressant is not waste oil.

6.6.3.1 Assessment matters

In considering any application under this rule, in addition to the matters listed in Section 104 of the Resource Management Act,

the Otago Regional Council will have regard to, but not be restricted by, the following matters:

(a) to (d) *[Unchanged]*

(e) Means by which the above matters will be monitored, including land adjoining areas being sprayed, any water body, ~~oil in the immediate locality~~, including the frequency and locations of monitoring.

6.6.4 Discharge of waste oil

Except as provided for by Rules 6.6.1, 7.6.1 or 7.6.2, the discharge of waste oil onto or into land or into water is a prohibited activity.

Principal reasons for adopting hazardous substances and hazardous wastes rules

The discharge of hazardous wastes into or onto land, and into water and air, can have a significant adverse effect on Otago's natural and physical resources. Because of the potential for significant adverse effects to occur, the discharge of such hazardous wastes requires control.

~~The discharge of oil onto roads, because of the potential for heavy metals and other noxious elements within the oil to enter into ground and surface water resources, can also have adverse effects which requires control in order to ensure that the adverse effects are avoided, remedied or mitigated.~~

6.7 Anticipated environmental results

6.7.1 - 6.7.5 *[Unchanged]*

6.7.6 The use of waste oil as a dust suppressant is avoided, and the adverse effects of the use of ~~other waste lubricating oil as a~~ dust suppressants are avoided, remedied or mitigated.

7

Landfills



7.1 Introduction *[Unchanged]*

7.2 Landfill issues

7.2.1 *[Unchanged]*

7.2.2 There are inappropriately sited landfills in Otago.

Explanation

Landfills, have been located in inappropriate places, such as close to water bodies, above groundwater supplies, adjacent to incompatible activities or in areas where there is a considerable adverse effect on the amenities of the area. Discharges from landfills are potential sources of contamination. In many cases there is a lack of knowledge of what has been placed into these landfills and as a consequence there may be a need to monitor some sites.

~~The siting of landfills is a land use issue that territorial authorities are required to consider, and this will be undertaken through district plans.~~

Objectives 7.3.1, 7.3.2

Policies 7.4.3, 7.4.7, 7.4.11, 7.4.11A

7.2.3 Some landfills in Otago are not managed to appropriate standards.

Explanation

Management of Otago's landfills must ensure the avoidance, remedy and mitigation of adverse environmental effects that could occur from unwise management. These include discharges to land, water and air. While this Plan seeks to manage all discharges arising from landfills, the complex nature of discharges to air, and the need for a consistent approach across activities, means that detailed standards relating to such discharges will be subject to the provisions of the Regional Plan: Air for Otago.

In part some of the inappropriate management practices undertaken at existing landfills arise because there is insufficient awareness and implementation of landfill management guidelines. Improved landfill management procedures have been developed, for example by the Ministry for the Environment, to minimise the adverse environmental effects of landfills. If the adverse environmental effects are to be avoided, remedied or mitigated then the adoption and use of appropriate management practices as set out in guidelines will be required. Particular attention needs to focus on hazardous wastes, such as medical wastes, and methods used to

pre-treat them, and either store them or dispose of them. In some instances, however, landfill managers are not familiar with appropriate methods of landfill management.

Objectives 7.3.1, 7.3.2

Policies 7.4.3, 7.4.4, 7.4.6, 7.4.7, 7.4.11, 7.4.11A

7.2.4 - 7.2.8 [Unchanged]

7.3 Landfill objectives

7.3.1 To avoid, remedy or mitigate the adverse environmental effects arising from the discharge of contaminants at and from landfills.

Explanation

Adverse environmental effects may occur through toxic leachate or gases which originate from landfills. Such leachate can move into surface or groundwater supplies as well as onto adjacent land or into the air, rendering these resources unsuitable for other uses, or unsafe. The adverse environmental effects of landfills can be avoided by adopting methods for disposal other than landfills. The adverse effects can be remedied or mitigated by siting landfills appropriately, and implementing sound management practices. Some material such as offal is inappropriate to dispose of into landfills other than offal pits, and alternative means are required to deal with this issue.

Policies 7.4.1 - 7.4.~~10~~11A

Methods 7.5.1 - 7.5.16

Rules 7.6.1 - 7.6.11

7.3.2 To eliminate illegal, uncontrolled, unmanaged, poorly managed and poorly located landfill sites.

Explanation

The illegal dumping of waste is an offence against the Resource Management Act. As with uncontrolled and unmanaged landfills, illegal dumping can give rise to adverse effects, such as discharges and visual unsightliness. Sites that are poorly located or poorly managed can also give rise to adverse effects. Where action cannot be taken to improve the operation of such landfills in the future, it is appropriate to seek their closure and the construction of more environmentally acceptable facilities.

Policies 7.4.2, 7.4.3, 7.4.6 - 7.4.9, 7.4.11, 7.4.11A

Methods 7.5.1 - 7.5.3, 7.5.10, 7.5.11, 7.5.14, 7.5.16

Rules 7.6.1 - 7.6.11

7.3.3 [Unchanged]

Principal reasons for adopting landfill objectives [Unchanged]

7.4 Landfill policies

7.4.1 – 7.4.10 [Unchanged]

7.4.11 To avoid significant adverse effects of discharges and otherwise minimise the adverse effects of discharges from new and operating landfills on the environment outside a landfill footprint (as indicated in Figure 5-1 of the Waste Management Institute New Zealand's Technical Guidelines for Disposal to Land August 2018), by requiring that:

- (a) the siting, design, construction, operation and management of new ~~and operating~~ landfills, and operating and closed landfills to the extent that the Guidelines are applicable, is in accordance with the Waste ~~Minimisation~~ Management Institute New Zealand's Technical Guidelines for Disposal to Land (August 2018) and**
- (b) a site-specific management plan is prepared and implemented in accordance with the Waste ~~Minimisation~~ Management Institute New Zealand's Technical Guidelines for Disposal to Land (August 2018) that includes (but is not limited to):**
 - (i) methods for leachate management, collection, treatment and disposal;**
 - (ii) methods for stormwater capture and control from both off-site and on-site sources; and**
 - (iii) methods to minimise contamination of the receiving environment; and**
 - (iv) controls to manage hazardous waste and avoid any discharge of hazardous wastes or the leaching of contaminants from hazardous wastes.**

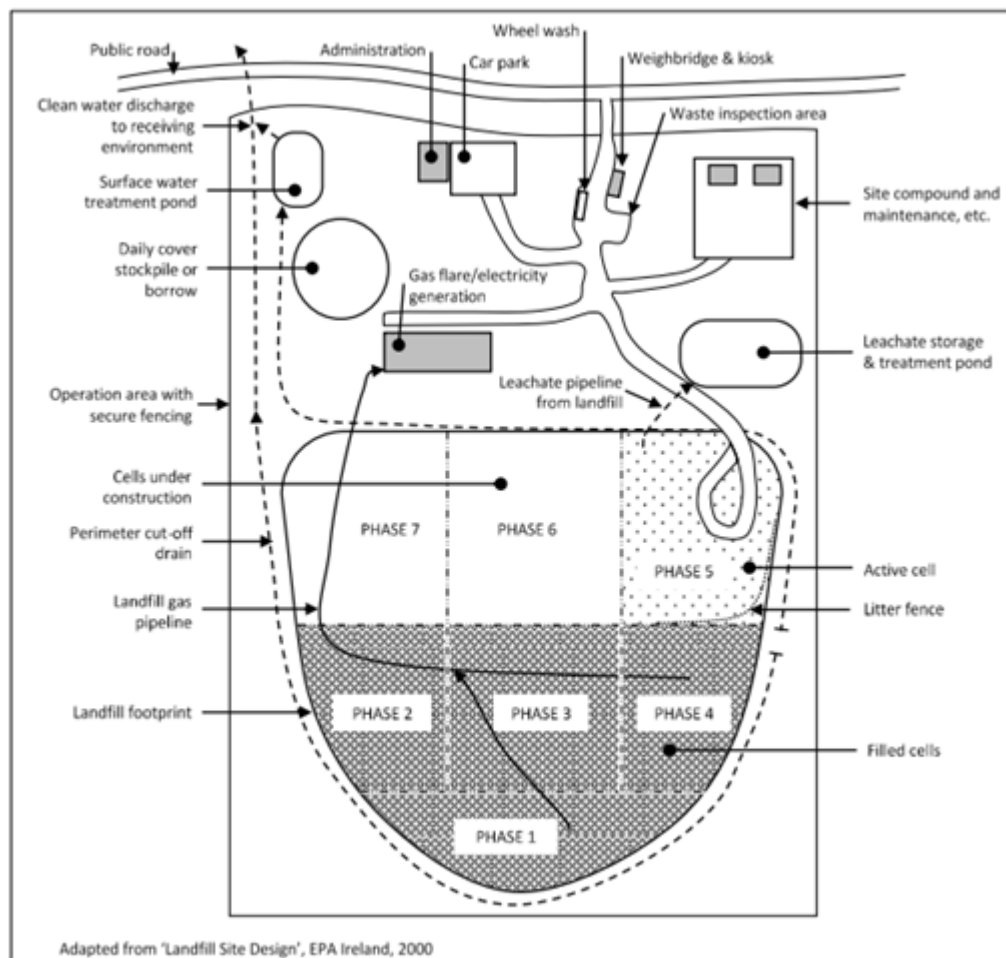


Figure 4: Operational Plan for a Landfill Site

(Adapted from the Waste Management Institute New Zealand's *Technical Guidelines for Disposal to Land* August 2018, Figure 5-1)

7.4.11A The discharges at and from new and operating landfills within 13km of airports defined as Nationally Significant Infrastructure are to be assessed with regard to:

(a) siting;

(b) classes of landfills;

(c) preparation and implementation of management plans;

in order to prevent the landfill increasing the existing risk of bird strike.

Advice note: For the purpose of Policy 7.4.11A, the reference to “airports defined as Nationally Significant Infrastructure” includes any airport (but not its ancillary commercial activities) used for regular air transport services by aeroplanes capable of carrying more than 30 passengers.

Principal reasons for adopting landfill policies [Unchanged]

7.5 Landfill methods

In meeting the objectives and in carrying out the policies relating to landfills, silage production and composting the Otago Regional Council will:

7.5.1 - 7.5.6 [Unchanged]

7.5.7 Require ~~landfill—development—and~~ management plans for all landfills (excluding cleanfill landfills, offal pits on production land, farm landfills and greenwaste landfills) and for offal pits on industrial or trade premises, excluding factory farms, describing the methods to be taken to avoid, remedy or mitigate any adverse environmental effects;

7.5.8 - 7.5.16 [Unchanged]

Principal reasons for landfill methods [Unchanged]

7.6 Landfill rules

Discharges of waste onto or into land except as permitted by or under this Plan, a resource consent, or regulation, are non-complying activities.

7.6.1 New or operating landfills [excluding cleanfill landfills, offal pits, farm landfills and greenwaste landfills] (discretionary activities)

- 1 The discharge of any contaminant into or onto land; or**
- 2 The discharge of any contaminant or water into water; or**
- 3 The discharge of any contaminant into air,**

as a result of the operation of any landfill (except for a cleanfill landfill, offal pit, farm landfill, or greenwaste landfill covered by Rules 7.6.3 to 7.6.11) are discretionary activities, provided that no burning of waste is undertaken.

7.6.1.1 Information requirements

In addition to the information required by Section 88 of the Resource Management Act, the following information is required to be submitted with an application for resource consent under this rule:

- (a) If the landfill is to close by 1 October 1997 a landfill closure plan in the form prescribed by Appendix 3; or
- (b) Otherwise ~~a landfill development and management plan in the form prescribed in Appendix 2,~~ a site-specific management plan prepared in accordance with the Waste Minimisation Management Institute New Zealand's Technical Guidelines for Disposal to Land (August 2018).

7.6.1.2 Assessment matters

In considering any application under this rule, in addition to the matters listed in Section 104 of the Resource Management Act, the Otago Regional Council will have regard to, but not be restricted by, the following matters:

- (a) Odour control;
- (b) Potential contamination of soil or water;
- (c) Means to monitor the above;
- (d) The extent to which the landfill proposal reflects the industry standard for landfills, as represented in the Waste Management Institute New Zealand's Technical Guidelines for Disposal to Land (August 2018) ~~Ministry for the Environment Landfill~~

~~Guidelines 1994, or their update or other industry standards which are current at the time of application for a resource consent;~~

- (e) The location of the landfill relative to any water body, areas prone to erosion, inundation or subsidence, and areas of cultural, conservation or historic significance;
- (f) The characteristics, composition and volume of substances being discharged and of any likely by-products occurring from the degradation of these substances;
- (g) The characteristics of the receiving environment including the current and likely future uses of that environment including residential activities;
- (h) The mitigation measures, safeguards, and contingency plans to be undertaken to prevent or reduce the actual and potential adverse environmental effects including on residential activities;
- (i) Provisions for the handling of any noxious waste, including medical waste, and the degree of pre treatment that will be required prior to accepting such wastes; and
- (j) The landfill ~~development and~~ management plan or landfill closure plan prepared for the site.

7.6.2 - 7.6.5 *[Unchanged]*

7.6.6 Offal pits on industrial or trade premises, excluding factory farms (controlled activity)

- 1 The discharge of any contaminant into or onto land;
- 2 The discharge of any contaminant or water into water; or
- 3 The discharge of any contaminant to air,

when occurring as the result of an offal pit on industrial or trade premises (excluding factory farms) is a controlled activity, provided that:

- (a) It is dug in a manner so as to avoid groundwater seepage into the pit;
- (b) It is not constructed within 100 metres, horizontally, of a well used to provide water for domestic purposes or drinking water for livestock;
- (c) Leachate from the offal pit does not enter any water body;
- (d) It is not constructed within 50 metres, horizontally, of any river, lake, stream, pond, wetland or mean high water springs;

- (e) The offal pit shall not be used for the disposal of hazardous wastes or any other toxic matter, sewage, or animal effluent;
- (f) Only offal generated on the property is to be disposed of into the pit;
- (g) It is not dug within 50 metres, horizontally, of a property boundary; or
- (h) The offal pit does not cause a nuisance and is not noxious, dangerous, offensive, or objectionable beyond the boundaries of the property.

7.6.6.1 Information requirements

In addition to the information required by Section 88 of the Resource Management Act, the following information is required to be submitted with an application for resource consent under this rule:

- (a) If the offal pit is to close by 1 October 1997 a landfill closure plan in the form prescribed by Appendix 3;
- (b) Otherwise a ~~landfill development and~~ management plan in the form prescribed in Appendix 2.

7.6.6.2 Assessment Matters

In considering an application under this rule the Otago Regional Council will exercise its control over the following matters:

- (a) The adverse effects on land, water and air arising from any discharges;
- (b) The location of the offal pit relative to any water body, areas prone to erosion, inundation or subsidence, and areas of cultural, conservation or historic significance;
- (c) The action that is to be taken to avoid, remedy or mitigate any adverse effects of any discharges;
- (d) The monitoring programme to be implemented; and
- (e) The means to advise prospective purchasers of the property about the landfill operation.

7.6.7 Control of offal pits not in accordance with Rules 7.6.5 or 7.6.6 (discretionary activity)

- 1 The discharge of any contaminant into or onto land;**
- 2 The discharge of any contaminant or water into water; or**
- 3 The discharge of any contaminant to air,**

when occurring as the result of an offal pit operated other than in accordance with Rule 7.6.5 or Rule 7.6.6 is a discretionary activity.

7.6.7.1 Information requirements

For industrial and trade premises, excluding factory farms, in addition to the information required by section 88 of the Resource Management Act, the following information is required to be submitted with an application for a resource consent under this rule:

- (a) If the offal pit is to close by 1 October 1997 a landfill closure plan in the form prescribed by Appendix 3;
- (b) Otherwise a ~~landfill development and~~ management plan in the form prescribed in Appendix 2.

7.6.7.2 Assessment Matters

In considering any application under this rule, in addition to the matters listed in Section 104 of the Resource Management Act, the Otago Regional Council will have regard to, but not be restricted by, the following matters:

- (a) The adverse effects on land, water and air arising from any discharges;
- (b) The location of the offal pit relative to any water body, areas prone to erosion, inundation or subsidence, and areas of cultural, conservation or historic significance;
- (c) The action that is to be taken to avoid, remedy or mitigate any adverse effects of any discharges; and
- (d) The monitoring programme to be implemented.

7.6.8 - 7.6.15 *[Unchanged]*

Principal reasons for adopting landfill rules *[Unchanged]*

7.7 Anticipated environmental results *[Unchanged]*

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Glossary

Terms marked with a ^ϕ are terms defined in the Resource Management Act 1991

The Act	Unless expressly stated otherwise, means the Resource Management Act 1991 (including any amendments thereto).
Amenity values^ϕ	Means those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.
ANZECC	Australia and New Zealand Environment and Conservation Council, comprising ministers for the environment of Australian states, New Zealand and Papua New Guinea.
BOD	Biochemical Oxygen Demand. Used as a measure of organic pollution. The measured amount of oxygen required by acclimatised micro-organisms to biologically degrade the organic matter in wastewater.
Cleanfill	Generally a natural material such as clay, soil, and rock, and such other materials as concrete, brick or demolition products that are free of combustible or organic materials and are therefore not subject to biological or chemical breakdown.
Cleanfill landfill	A landfill used solely for the disposal of cleanfill.
Cleaner production	The conceptual and procedural approach to production that demands that all phases of the lifecycle of a product or of a process should be addressed with the objective of prevention or minimisation of short and long-term risks to humans and to the environment.
Closed landfill	A landfill which is no longer receiving waste.
COD	Chemical Oxygen Demand.
Co-disposal	The disposal of appropriate hazardous wastes by mixing them, in an informed and pre-determined manner, with municipal refuse, so as to use the attenuation and biochemical processes operating within the landfill to reduce the environmental impact from the mixed waste to an insignificant level.

Co-disposal landfill	A landfill used for the disposal of special hazardous wastes in combination with community wastes. Leachate and gaseous emissions from a co-disposal landfill should not be materially different from those generated from an operating landfill managed by a territorial authority.
Composting	The biological reduction of organic waste to a relatively stable product.
Contaminant^φ	Includes any substance (including gases, liquids, solids and micro-organisms) or energy (excluding noise) or heat, that either by itself or in combination with the same, similar, or other substances, energy or heat: <ul style="list-style-type: none"> (a) When discharged into water, changes or is likely to change the physical, chemical, or biological condition of water; or (b) When discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged.
Contaminated site	A contaminated site is a site at which hazardous substances occur at concentrations above background levels and where assessment indicates it poses, or is likely to pose an immediate or long term hazard to human health or the environment.
Controlled activity^φ	An activity which - <ul style="list-style-type: none"> (a) Is provided for, as a controlled activity, by a rule in a plan or proposed plan; and (b) Complies with standards and terms specified in a plan or proposed plan for such activities; and (c) Is assessed according to matters the consent authority has reserved control over in the plan or proposed plan; and (d) Is allowed only if a resource consent is obtained in respect of that activity.
Discharge^φ	Includes emit, deposit and allow to escape.
Discharge permit	A consent to do something (other than in the coastal marine area) that otherwise would contravene Section 15 [of the Resource Management Act 1991].

Discretionary activity^φ	<p>Any activity -</p> <ul style="list-style-type: none"> (a) Which is provided for, as a discretionary activity, by a rule in a plan or proposed plan; and (b) Which is allowed only if a resource consent is obtained in respect of that activity; and (c) Which may have standards and terms specified in a plan or proposed plan; and (d) In respect of which the consent authority may restrict the exercise of its discretion to those matters specified in the plan or proposed plan for that activity.
Ecosystem	<p>A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.</p>
Effect^φ	<p>Unless the context otherwise requires, the term “effect” includes:</p> <ul style="list-style-type: none"> (a) Any positive or adverse effect; and (b) Any temporary or permanent effect; and (c) Any past, present, or future effect; and (d) Any cumulative effect which arises over time or in combination with other effects - <p>regardless of the scale, intensity, duration, or frequency of the effect, and also includes -</p> <ul style="list-style-type: none"> (e) Any potential effect of high probability; and (f) Any potential effect of low probability which has a high potential impact.
Environment^φ	<p>Includes:</p> <ul style="list-style-type: none"> (a) Ecosystems and their constituent parts, including people and communities; and (b) All natural and physical resources; and (c) Amenity values, and (d) The social, economic, aesthetic and cultural conditions which affect the matters stated in paragraphs (a) to (c) of this definition or which are affected by those matters.

Eutrophication	Process by which water (usually freshwater) becomes rich in nutrients, causing excessive plant growth which kills animal life by deprivation of oxygen.
Farm landfill	A landfill situated on production land in which the disposal of waste generated from that land takes place, not including any dead animal material or any waste generated from any industrial or trade process on that production land.
Greenwaste	Vegetative material. The material may include soil that is attached to plant roots and shall be free of hazardous substances and wastes.
Groundwater	Water that occupies or moves through pores, cavities, cracks, and other spaces in crustal rocks.
Hazardous substance	<p>Any substance:</p> <ul style="list-style-type: none"> (a) With one or more of the following intrinsic properties: <ul style="list-style-type: none"> (i) Explosiveness; (ii) Flammability; (iii) A capacity to oxidise; (iv) Corrosiveness; (v) Toxicity, (both acute and chronic); (vi) Ecotoxicity, with or without bioaccumulation; or (b) Which on contact with air or water (other than air or water where the temperature or pressure has been artificially increased or decreased) generates a substance with any one or more of the properties specified in paragraph (a) of this definition.
Hazardous waste	<p>Includes:</p> <ul style="list-style-type: none"> (a) A hazardous substance which has not been used and requires disposal; or (b) The residue of a hazardous substance which has been used and requires disposal; or (c) Waste material containing a hazardous substance.

Highly hazardous substance or waste	Any substance or waste belonging to any of the categories described in Appendix 4 of this Plan, unless such wastes or substances do not possess any of the hazardous characteristics listed in Appendix 5 of this Plan.
Industrial or trade premises^φ	<p>Means:</p> <ul style="list-style-type: none"> (a) Any premises used for any industrial or trade purposes; or (b) Any premises used for the storage, transfer, treatment, or disposal of waste materials or for other waste management purposes, or used for composting organic materials; or (c) Any other premises from which a contaminant is discharged in connection with any industrial or trade process - <p>and includes any factory farm; but does not include any production land.</p>
Intractable waste	Any hazardous waste that does not degrade naturally into non-hazardous residues over time when released into the environment, and for which there is no present environmentally acceptable method of treatment or disposal currently available in New Zealand. It should be noted that not all hazardous wastes are intractable wastes.
Kai Tahu	Descendants of Tahu, the tribe.
Kaitiakitanga^φ	The exercise of guardianship and, in relation to a resource, includes the ethic of stewardship based on the nature of the resource itself.
Landfill	A site used for the deposit of solid wastes onto or into land.
Leachate	A liquid contaminant resulting from the liquid being exuded from or percolated through some more-or-less solid matter.
Local authority	A regional council or territorial authority.
Manawhenua	Those with rangatiratanga for a particular area of land or district.
Method	The practical action by which a policy is implemented.

Mitigate	To make or become less severe or harsh. To moderate.
New landfill	A site to be used as a landfill.
Non-complying activity	An activity (not being a prohibited activity) which: <ul style="list-style-type: none"> (a) Contravenes a rule in a plan or proposed plan; and (b) Is allowed only if a resource consent is obtained in respect of that activity.
Non-point source discharge	Runoff or leachate from land, onto or into land, air, a water body or the sea.
Objective	The desired result, end state, situation or condition that is aimed for.
Offal	Waste comprised of dead animal matter.
Offal pit	A disposal hole excavated for the purpose of disposing of offal.
Operating landfill	Any landfill that is currently accepting solid waste for disposal.
PCB	Polychlorinated biphenyl.
PCP	Pentachlorophenol.
Permitted activity^φ	Any activity that is allowed by a plan without a resource consent if it complies in all respects with any conditions (including any conditions in relation to any matter described in Section 108 or Section 220 [of the Resource Management Act]) specified in the plan.
Point source discharge	A discharge from a specific and identifiable source, onto or into land, air, a water body or the sea.
Policy	The course of action to achieve the objective.
Production land^φ	<ul style="list-style-type: none"> (a) Means any land and auxiliary buildings used for the production (but not processing) of primary products (including agricultural, pastoral, horticultural, and forestry products) (b) Does not include land or auxiliary buildings used or associated with prospecting, exploration, or mining for minerals or used for factory farming, - and “Production” has a corresponding meaning.

Recycling	The return of discarded waste materials to the production system for utilisation in the manufacture of goods, with a view to the conservation as far as practicable of non-renewable and scarce resources.
Resource consent^φ	<p>Means:</p> <ul style="list-style-type: none"> (a) A consent to do something that otherwise would contravene Section 9 or Section 13 (in [the Resource Management] Act called a “land use consent”); (b) A consent to do something that otherwise would contravene Section 11 (in [the Resource Management] Act called a “subdivision consent”); (c) A consent to do something in a coastal marine area that otherwise would contravene any of Sections 12, 14 and 15 (in the [Resource Management] Act called a “coastal permit”); (d) A consent to do something (other than in a coastal marine area) that otherwise would contravene Section 14 (in the [Resource Management] Act called a “water permit”); (e) A consent to do something (other than in a coastal marine area) that otherwise would contravene section 15 (in the [Resource Management] Act called a “discharge permit”); <p>And includes all conditions to which the consent is subject.</p>
Solid waste	The combination of domestic, industrial and commercial waste including non-hazardous special wastes, also known as community waste.
Takaroa	Guardian of the waterways.
Territorial authority	A city or district council.
Waste	Any contaminant, whether liquid, solid, gaseous, or radioactive, which is: discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an adverse effect on the environment and which includes all unwanted and economically unusable by-products at any given place and time, and any other matter which may be discharged, accidentally or otherwise, to the

	environment.
Waste analysis protocol	A system developed by the Ministry for the Environment to provide a database/knowledge on New Zealand's waste stream.
<u>Waste oil</u>	<u>Any oil that has been refined from crude oil, or any synthetic hydrocarbon oil, that has been used, and as a result of such use, has become unsuitable for its original purpose due to the presence of impurities or contaminants or the loss of original properties.</u>
Waste management	The transportation, resource recovery, recycling, storage, treatment and disposal of wastes, including management systems to ensure that environmental effects are avoided, remedied or mitigated. Waste management also encompasses measures to avoid waste generation.
Waste minimisation	The modification of existing processes or behaviour to reduce waste production to a minimum.
Water body^φ	Means fresh water or geothermal water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area.

G L O S S A R Y

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Appendices

Appendix 1 *[Unchanged]*

Appendix 2

Matters to be included in ~~Landfill Development and~~ Management Plan

- 1 General description of the ~~landfill~~ site, including topography, natural water sources, and geotechnical investigations.
- 2 Works to be undertaken to establish the offal pit landfill.
- 3 Description of the waste collection, treatment, and disposal system.
- 4 Projected life of the offal pit landfill.
- 5 Reinstatement and possible end use of the site.
- 6 Closure and after-care including ongoing monitoring of leachate discharges and management of surface runoff, stormwater control, and site remediation.
- 7 Assessment of environmental effects including assessment of alternatives to the disposal of waste at the offal pit landfill.
- 8 Any implications of site management and operation of offal pit landfill for Iwi.
- 9 For hazardous wastes, a description of wastes which are acceptable and unacceptable, and wastes which can only be accepted under special (specified) conditions.
- 10 For hazardous wastes, an outline of a manifest system identifying types and quantities received including the source, and where within the site landfill any hazardous wastes are to be placed.
- 11 Identification of discharges and environmental effects and the safeguards in place to avoid or reduce the environmental effects.
- 12 Sensitivity of the receiving environment.
- 13 A description of how litter, vermin and birds will be controlled.
- 14 Water control including stormwater and leachate.
- 15 Description of procedures for monitoring (including detection of leakage of contaminants in contravention of resource consent) and controlling adverse effects of spillages and leachate on groundwater and any water body, as well as monitoring and control of odours.

- 16 Outline proposals for audit and reporting to the Otago Regional Council regarding environmental compliance.
- 17 Identification of corporate environmental performance standards, national or industry group codes of practice, or other recognised environmental safety standards with which the operation of the facility will comply, and a description of the means for auditing compliance.
- 18 Identification of management responsibilities for compliance with resource consents and environmental regulatory requirements.
- 19 Outline of emergency response procedures and contingency plans including:
 - Power failure;
 - Fire; and
 - Emergency contacts.
- 20 Outline of contingency plans to restore or remedy any potential adverse environmental effects caused by the operation of the ~~offal pit landfill~~, including effects that may arise after waste disposal operations have ceased and details of proposed environmental trigger/action levels for implementation of the preferred contingency options.

Appendices:

- Aerial photograph or drawing showing the site layout
- Staged management plans
- Final landform plan

Appendices 3 – 5 [Unchanged]