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## Glossary

Terms marked with a <sup>ϕ</sup> are terms defined in the Resource Management Act 1991

<b>The Act</b>	Unless expressly stated otherwise, means the Resource Management Act 1991 (including any amendments thereto).
<b>Amenity values<sup>ϕ</sup></b>	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.
<b>ANZECC</b>	Australia and New Zealand Environment and Conservation Council, comprising ministers for the environment of Australian states, New Zealand and Papua New Guinea.
<b>BOD</b>	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.
<b>Cleanfill</b>	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.
<b>Cleanfill landfill</b>	A landfill used solely for the disposal of cleanfill.
<b>Cleaner production</b>	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.
<b>Closed landfill</b>	A landfill which is no longer receiving waste.
<b>COD</b>	Chemical Oxygen Demand.
<b>Co-disposal</b>	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.

<b>Co-disposal landfill</b>	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.
<b>Composting</b>	The biological reduction of organic waste to a relatively stable product.
<b>Contaminant<sup>ϕ</sup></b>	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"> <li>(a) When discharged into water, changes or is likely to change the physical, chemical, or biological condition of water; or</li> <li>(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.</li> </ul>
<b>Contaminated site</b>	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.
<b>Controlled activity<sup>ϕ</sup></b>	An activity which - <ul style="list-style-type: none"> <li>(a) Is provided for, as a controlled activity, by a rule in a plan or proposed plan; and</li> <li>(b) Complies with standards and terms specified in a plan or proposed plan for such activities; and</li> <li>(c) Is assessed according to matters the consent authority has reserved control over in the plan or proposed plan; and</li> <li>(d) Is allowed only if a resource consent is obtained in respect of that activity.</li> </ul>
<b>Discharge<sup>ϕ</sup></b>	Includes emit, deposit and allow to escape.
<b>Discharge permit</b>	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<sup>ϕ</sup>** Any activity -
- (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** A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.
- Effect<sup>ϕ</sup>** Unless the context otherwise requires, the term “effect” includes:
- (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 -
- regardless of the scale, intensity, duration, or frequency of the effect, and also includes -
- (e) Any potential effect of high probability; and
  - (f) Any potential effect of low probability which has a high potential impact.
- Environment<sup>ϕ</sup>** Includes:
- (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.

<b>Eutrophication</b>	Process by which water (usually freshwater) becomes rich in nutrients, causing excessive plant growth which kills animal life by deprivation of oxygen.
<b>Farm landfill</b>	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.
<b>Greenwaste</b>	Vegetative material. The material may include soil that is attached to plant roots and shall be free of hazardous substances and wastes.
<b>Groundwater</b>	Water that occupies or moves through pores, cavities, cracks, and other spaces in crustal rocks.
<b>Hazardous substance</b>	<p>Any substance:</p> <p>(a) With one or more of the following intrinsic properties:</p> <ul style="list-style-type: none"> <li>(i) Explosiveness;</li> <li>(ii) Flammability;</li> <li>(iii) A capacity to oxidise;</li> <li>(iv) Corrosiveness;</li> <li>(v) Toxicity, (both acute and chronic);</li> <li>(vi) Ecotoxicity, with or without bioaccumulation; or</li> </ul> <p>(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.</p>
<b>Hazardous waste</b>	<p>Includes:</p> <ul style="list-style-type: none"> <li>(a) A hazardous substance which has not been used and requires disposal; or</li> <li>(b) The residue of a hazardous substance which has been used and requires disposal; or</li> <li>(c) Waste material containing a hazardous substance.</li> </ul>

<b>Highly hazardous substance or waste</b>	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.
<b>Industrial or trade premises<sup>ϕ</sup></b>	Means: <ul style="list-style-type: none"> <li>(a) Any premises used for any industrial or trade purposes; or</li> <li>(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</li> <li>(c) Any other premises from which a contaminant is discharged in connection with any industrial or trade process -</li> </ul> <p>and includes any factory farm; but does not include any production land.</p>
<b>Intractable waste</b>	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.
<b>Kai Tahu</b>	Descendants of Tahu, the tribe.
<b>Kaitiakitanga<sup>ϕ</sup></b>	The exercise of guardianship and, in relation to a resource, includes the ethic of stewardship based on the nature of the resource itself.
<b>Landfill</b>	A site used for the deposit of solid wastes onto or into land.
<b>Leachate</b>	A liquid contaminant resulting from the liquid being exuded from or percolated through some more-or-less solid matter.
<b>Local authority</b>	A regional council or territorial authority.
<b>Manawhenua</b>	Those with rangatiritanga for a particular area of land or district.
<b>Method</b>	The practical action by which a policy is implemented.

<b>Mitigate</b>	To make or become less severe or harsh. To moderate.
<b>New landfill</b>	A site to be used as a landfill.
<b>Non-complying activity</b>	An activity (not being a prohibited activity) which: <ul style="list-style-type: none"> <li>(a) Contravenes a rule in a plan or proposed plan; and</li> <li>(b) Is allowed only if a resource consent is obtained in respect of that activity.</li> </ul>
<b>Non-point source discharge</b>	Runoff or leachate from land, onto or into land, air, a water body or the sea.
<b>Objective</b>	The desired result, end state, situation or condition that is aimed for.
<b>Offal</b>	Waste comprised of dead animal matter.
<b>Offal pit</b>	A disposal hole excavated for the purpose of disposing of offal.
<b>Operating landfill</b>	Any landfill that is currently accepting solid waste for disposal.
<b>PCB</b>	Polychlorinated biphenyl.
<b>PCP</b>	Pentachlorophenol.
<b>Permitted activity<sup>ϕ</sup></b>	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.
<b>Point source discharge</b>	A discharge from a specific and identifiable source, onto or into land, air, a water body or the sea.
<b>Policy</b>	The course of action to achieve the objective.
<b>Production land<sup>ϕ</sup></b>	<ul style="list-style-type: none"> <li>(a) Means any land and auxiliary buildings used for the production (but not processing) of primary products (including agricultural, pastoral, horticultural, and forestry products)</li> <li>(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.</li> </ul>

<b>Recycling</b>	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.
<b>Resource consent<sup>ϕ</sup></b>	<p>Means:</p> <p>(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”);</p> <p>(b) A consent to do something that otherwise would contravene Section 11 (in [the Resource Management] Act called a “subdivision consent”);</p> <p>(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”);</p> <p>(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”);</p> <p>(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> <p>And includes all conditions to which the consent is subject.</p>
<b>Solid waste</b>	The combination of domestic, industrial and commercial waste including non-hazardous special wastes, also known as community waste.
<b>Takaroa</b>	Guardian of the waterways.
<b>Territorial authority</b>	A city or district council.
<b>Waste</b>	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.



<b>Waste oil</b>	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.
<b>Waste analysis protocol</b>	A system developed by the Ministry for the Environment to provide a database/knowledge on New Zealand's waste stream.
<b>Waste management</b>	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.
<b>Waste minimisation</b>	The modification of existing processes or behaviour to reduce waste production to a minimum.
<b>Water body<sup>ϕ</sup></b>	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

### Matters to be included in a Hazardous Waste Facility Management Plan

- 1 General description of the site, including topography, natural water sources, and geotechnical investigations.
- 2 Description of the operation of the disposal facility.
- 3 Types of waste to be treated or disposed of.
- 4 Assessment of environmental effects including assessment of alternatives to the disposal of waste at the landfill.
- 5 Any implications of site management and operation of landfill for Iwi.
- 6 A manifest system identifying types and quantities received including the source, and where within the landfill any hazardous wastes are placed.
- 7 Identification of discharges and environmental effects and the safeguards in place to avoid or reduce the environmental effects.
- 8 Sensitivity of the receiving environment.
- 9 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 the monitoring and control of odours.
- 10 Outline of proposals to report to the Otago Regional Council regarding environmental compliance.
- 11 Outline of emergency response procedures and contingency plans including:
  - Power failure;
  - Fire; and
  - Emergency contacts.

## Appendix 2

### Matters to be included in Management Plan

- 1 General description of the site, including topography, natural water sources, and geotechnical investigations.
- 2 Works to be undertaken to establish the offal pit.
- 3 Description of the waste collection, treatment, and disposal system.
- 4 Projected life of the offal pit.
- 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.
- 8 Any implications of site management and operation of offal pit 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 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.

## A P P E N D I C E S

- 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, 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

## Appendix 3

### Matters to be included in Landfill Closure Plan

- 1 General description of the landfill site, including topography, natural water sources, geotechnical investigations.
- 2 Description of the waste collection, treatment, and disposal system that has operated on the site, including, where known, the likely composition of material in the landfill.
- 3 End use of the site.
- 4 After-care including ongoing monitoring of leachate discharges and management of surface runoff, stormwater control, and site remediation.
- 5 Any implications of site management and operation of landfill for Iwi.
- 6 Identification of discharges and environmental effects and the safeguards in place to avoid or reduce the environmental effects.
- 7 Proposals for audit and reporting to the Otago Regional Council regarding environmental compliance.

#### Appendices:

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

## Appendix 4

### Categories of wastes to be controlled

#### A Waste streams

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- Y1 Clinical waste from medical care in hospitals, medical centres and clinics;
- Y2 Waste from the production and preparation of pharmaceutical products;
- Y3 Waste pharmaceuticals, drugs and medicines;
- Y4 Waste from the production, formulation and use of biocides and phytopharmaceuticals;
- Y5 Waste from the manufacture, formulation and use of wood preserving chemicals;
- Y6 Waste from the production, formulation and use of organic solvents;
- Y7 Waste from heat treatment and tempering operations containing cyanides;
- Y8 Waste mineral oils unfit for their originally intended use;
- Y9 Waste oils/water, hydrocarbons/water mixtures, emulsions;
- Y10 Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs), polychlorinated terphenyls (PCTs) or polybrominated biphenyls (PBBs);
- Y11 Waste tarry residues arising from refining, distillation and any pyrolytic treatment;
- Y12 Waste from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish;
- Y13 Waste from production, formulation and use of resins, latex, plasticisers, glues/adhesives;
- Y14 Waste chemical substances arising from research and development or teaching activities which are not identified and / or are new and whose effects on man and / or the environment are not known;
- Y15 Waste of an explosive nature;
- Y16 Waste from production, formulation and use of photographic chemicals and processing materials;
- Y17 Waste resulting from surface treatment of metals and plastics; and
- Y18 Residues arising from industrial waste disposal operations.

#### B Constituents

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- Y19 Metal carbonyls;
- Y20 Beryllium; beryllium compounds;
- Y21 Hexavalent chromium compounds;
- Y22 Copper compounds;
- Y23 Zinc compounds;
- Y24 Arsenic; arsenic compounds;
- Y25 Selenium; selenium compounds;
- Y26 Cadmium; cadmium compounds;
- Y27 Antimony; antimony compounds;
- Y28 Tellurium; tellurium compounds;
- Y29 Mercury; mercury compounds;



- Y30 Thallium; thallium compounds;
- Y31 Lead; lead compounds;
- Y32 Inorganic fluorine compounds excluding calcium fluoride;
- Y33 Inorganic cyanides;
- Y34 Acidic solutions or acids in solid form;
- Y35 Basic solutions or bases in solid form;
- Y36 Asbestos (dust and fibres);
- Y37 Organic phosphorous compounds;
- Y38 Organic cyanides;
- Y39 Phenols; phenol compounds including chlorophenols;
- Y40 Ethers;
- Y41 Halogenated organic solvents;
- Y42 Organic solvents excluding halogenated solvents;
- Y43 Any congener of polychlorinated dibenzo-furan;
- Y44 Any congener of polychlorinated dibenzo-p-dioxin; and
- Y45 Organohalogen compounds other than substances referred to in this appendix (eg, Y39, Y41, Y42, Y43, Y44).

### **C Wastes requiring special consideration**

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- Y46 Wastes collected from households;
- Y47 Residues arising from the incineration of household wastes;
- Y48 Radioactive substances;
- Y49 Contained gases.

Source: Corresponds to the classification system from “*Our Waste Our Responsibility*” [Centre for Advanced Engineering, 1993, Part 3, Appendix A, pages 240 - 241]

## Appendix 5

### List of hazardous characteristics

UN Class*	Code	Characteristics
1	H1	<p><b>Explosives</b></p> <p>An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) that is, in itself, capable by chemical reaction of producing gas at such a temperature and pressure, and at such a speed, as to cause damage to the surroundings.</p>
3	H3	<p><b>Flammable liquids</b></p> <p>The word “flammable” has the same meaning as “inflammable”. Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc, but not including substances or wastes otherwise classified on account of their dangerous characteristics) which give off a flammable vapour at temperatures of not more than 61°C.</p>
4.1	H4.1	<p><b>Flammable solids</b></p> <p>Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.</p>
4.2	H4.2	<p><b>Substances or wastes liable to spontaneous combustion</b></p> <p>Substances or wastes that are liable to spontaneous heating under normal conditions encountered in transport, or to heating up on contact with air, and then being liable to catch fire.</p>
4.3	H4.3	<p><b>Substances or wastes which, in contact with water, emit flammable gases</b></p> <p>Substances or wastes which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.</p>
5.1	H5.1	<p><b>Oxidising substances</b></p> <p>Substances or wastes which, in themselves are not necessarily combustible, but may, generally by yielding oxygen, cause or contribute to the combustion of other materials.</p>

- 5.2 H5.2 **Organic peroxides**  
Organic substances or wastes which contain the bivalent O=O structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.
- 6.1 H6.1 **Poisonous substances**  
Substances or wastes liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact.
- 6.2 H6.2 **Infectious substances**  
Substances or wastes containing viable micro-organisms or their toxins which are known or suspected to cause disease in animals or humans.
- 7 H7 **Radioactive material**  
Spontaneously emits radiation greater than background level. Includes alpha, beta, gamma, x-rays, neutrons, high energy electrons, protons and other atomic particles.
- 8 H8 **Corrosives**  
Substances or wastes which, by chemical action, will cause severe damage when in contact with living tissue, or, in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.
- 9 H10 **Liberation of toxic gases in contact with air or water**  
Substances or wastes which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.
- 9 H11 **Toxic (delayed or chronic)**  
Substances or wastes, which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity. (See note).
- 9 H12 **Ecotoxic**  
Substances or wastes, which if released, present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation or toxic effects upon biotic systems. (See note).
- 9 H13 **Capable of yielding another material**  
Capable, by any means, after disposal, of yielding another material, eg, leachate, which possesses any of the characteristics listed above.

## A P P E N D I C E S

Corresponds to the hazard classification system included in the United Nations Recommendations on the Transport of Dangerous Goods (ST/SG/AC. 10/1/Rev.6, United Nations, New York, 1989)

- Note:** (1) In the above descriptions, where specific reference is made to conditions of transport in waste management, this should include all conditions of storage, transport and disposal.
- (2) These categories, in the absence of specific tests, are considered to contain, but are not limited to, all wastes having as constituents any substances listed in the four schedules of the New Zealand Toxic Substances Regulations at or above the concentrations listed in the schedule to these Regulations.

The potential hazards posed by certain types of wastes are not yet fully documented; tests to quantitatively define these hazards do not exist. Further research is necessary in order to develop the means to characterise potential hazards posed to man or the environment by these wastes.

Source: Corresponds to the classification system from “*Our Waste Our Responsibility*”, [Centre for Advanced Engineering, 1993, part 3, Appendix B, pages 243 - 244]