E32. Biosolids

E32.1. Background

Biosolids are sewage sludges or sewage sludges mixed with other materials that have been treated and stabilised to the extent that they are able to be safely and beneficially applied to land. Biosolids have significant fertilising and soil-conditioning properties as a result of the nutrients and organic materials they contain. In addition to natural nutrients, biosolids may also contain pathogens, heavy metals and synthetic organic compounds. They therefore require appropriate management to minimise the risk to public health and the contamination of land, surface and groundwater and the coastal marine area.

The application of biosolids to land can result in a number of beneficial outcomes, including economic benefits, waste minimisation and land rehabilitation. The application of biosolids to land may also have adverse effects on water quality, public health, amenity values or the environment.

The biosolids from many wastewater treatment plants are disposed of in landfills. This involves transport costs and uses valuable space in these landfills. More sophisticated wastewater treatment plants have enabled the production of more highly treated biosolids and more flexibility in their disposal to land. National guidelines provide direction on the grading of biosolids, according to their levels of contamination and stability. This grading system forms the technical basis for how the application of biosolids are managed in the Plan.

These rules should be read in conjunction with the Guidelines for the Safe Application of Biosolids to Land in New Zealand, August 2003. The grading system used in these provisions is adopted from Section 4.3 Biosolids Grading System of the Guidelines for the Safe Application of Biosolids to Land in New Zealand, August 2003.

E32.2. Objective [rp]

(1) The beneficial use of biosolids onto or into land is provided for while managing any adverse effects on water quality, public health, amenity values or the environment.

E32.3. Policy [rp]

(1) Enable the application of biosolids on or in land where it can be demonstrated that all of the following can be achieved:

(a) it will not result in significant adverse effects on surface and groundwater quality;

(b) it does not pose a threat to public health in terms of concentrations of nutrients, heavy metals, pathogens and synthetic organic chemicals;

(c) it does not adversely affect any Mana Whenua values associated with the site;

(d) it does not result in more than minor adverse effects to a water supply management area within the Water Supply Management Areas Overlay;

(e) there is no offensive or objectionable odour or dust beyond the boundary of the property on which the biosolids are applied; and

(f) land used for food production or residential activities is avoided.

E32.4. Activity table

Table E32.4.1 Activity table specifies the activity status for the application, use or discharge of biosolids onto or into land or into water pursuant to section 9(2) and section 15 of the Resource Management Act 1991.

Table E32.4.1 Activity table

Activity		Activity status
(A1)	The application or discharge of Grade Aa biosolids onto or into land	P
(A2)	The application or discharge of Grade Aa biosolids onto or into land that do not comply with Standard E32.6.1.1	RD
(A3)	The application or discharge of Grade Ab, Ba and Bb biosolids onto or into land	RD
(A4)	Any application or discharge of biosolids onto or into land which is not otherwise provided for	D
(A5)	The direct discharge of biosolids into water	Pr

E32.5. Notification

(1) Any application for resource consent for an activity listed in Table E32.4.1 Activity table above will be subject to the normal tests for notification under the relevant sections of the Resource Management Act 1991.

(2) When deciding who is an affected person in relation to any activity for the purposes of section 95E of the Resource Management Act 1991 the Council will give specific consideration to those persons listed in Rule C1.13(4).

E32.6. Standards

E32.6.1. Permitted activity standards

All activities listed as a permitted activity in Table E32.4.1 Activity table must comply with the following permitted activity standards.

E32.6.1.1. The application or discharge of Grade Aa biosolids onto or into land

(1) There must not be any direct application or direct runoff into any water body or the coastal marine area.

(2) The application of biosolids must not be to land used for food production or residential activities.

(3) Grade Aa biosolids must meet the requirements in Tables 4.1 Stabilisations requirements and Table 4.2 Soil limits and biosolids classification by contaminant levels of the Guidelines for the Safe

Application of Biosolids to Land in New Zealand, August 2003, including the soil limit concentrations and the requirement to obtain accredited quality assurance.

(4) The application must not be to any water supply management area(s) as identified in the Water Supply Management Areas Overlay.

(5) The biosolids must be stored and handled to avoid groundwater or surface water contamination.

(6) The biosolids application must not occur at any site or place of significance to Mana Whenua as identified in the Sites and Places of Significance to Mana Whenua Overlay.

(7) The application of biosolids must provide for buffer zones between the biosolids application area and neighbouring land uses or sensitive environments as follows for all of the following:

(a) 20 metres from any property boundary;

(b) 20 metres from any surface water body and the coastal marine area;

(c) 20 metres from any water supply bore; and

(d) 20 metres from a significant geothermal feature.

(8) The application must not result in any offensive or objectionable odour or dust beyond the property boundary of the site on which the biosolids are applied.

(9) The person that applies the biosolids must keep the following records and make these records available to Council upon request:

(a) the nature of the biosolids including dry solids content, application, volume, location and frequency; and

(b) the total nitrogen mass-load applied per hectare per annum.

E32.7. Assessment – controlled activities

There are no controlled activities in this section.

E32.8. Assessment – restricted discretionary activities

E32.8.1. Matters of discretion

The Council will restrict its discretion to all of the following matters when assessing a restricted discretionary resource consent application:

(1) the rate and frequency of application of biosolids to control nutrient and contaminant loading rates;

(2) the type of blending material;

(3) the risk to the environment or to human or stock health in terms of concentrations of nutrients, heavy metals, pathogens and synthetic organic chemicals;

(4) the potential effects of not meeting a relevant permitted activity standard and how any such effects will be avoided or mitigated;

(5) the effects on:

(a) scheduled sites or places of significance to Mana Whenua as identified in the Sites and Places of Significance to Mana Whenua Overlay;

(b) water supply management areas as identified in the Water Supply Management Areas Overlay;

(c) wetland management areas as identified in the Wetland Management Areas Overlay;

(d) natural stream management areas as identified in the Natural Stream Management Areas Overlay;

(e) natural lake management areas as identified in Natural Lake Management Areas Overlay;

(f) high-use stream management areas as identified in the High-use Stream Management Areas Overlay;

(g) high-use aquifer management areas as identified in the High-use Aquifer Management Areas Overlay; and

(h) quality-sensitive aquifer management areas as identified in the Quality-sensitive Aquifer Management Areas Overlay.

(6) the effects of odour and dust beyond the site boundary;

(7) contingency measures proposed in the event of mechanical failure or prolonged wet weather;

(8) where relevant, the requirements in Table 4.1 Stabilisations requirements and Table 4.2 Soil limits and biosolids classification by contaminant levels of the Guidelines for the Safe Application of Biosolids to Land in New Zealand, August 2003 including the soil limit concentrations and the requirement to obtain accredited quality assurance;

(9) monitoring and information requirements; and

(10) compliance monitoring.

E32.8.2. Assessment criteria

The Council will consider the relevant assessment criteria for restricted discretionary activities from the list below:

(1) whether the proposed application of biosolids demonstrates that:

(a) it will not result in significant adverse effects on surface and groundwater quality and does not pose a threat to public health in terms of concentrations of nutrients, heavy metals, pathogens and synthetic organic chemicals;

(b) it does not adversely affect a scheduled site or place of significance to Mana Whenua as identified in the Sites and Places of Significance to Mana Whenua Overlay;

(c) it does not result in more than minor adverse effects to:

(i) water supply management areas as identified in the Water Supply Management Areas Overlay;

(ii) wetland management areas as identified in the Wetland Management Areas Overlay;

(iii) natural stream management areas as identified in the Natural Stream Management Areas Overlay;

(iv) natural lake management areas as identified in Natural Lake Management Areas Overlay;

(v) high-use stream management areas identified in the High-use Stream Management Areas Overlay;

(vi) high-use aquifer management areas as identified in the High-use Aquifer Management Areas Overlay; and

(vii) quality-sensitive aquifer management areas as identified in the Quality-sensitive Aquifer Management Areas Overlay.

(d) there is no offensive or objectionable odour or dust beyond the boundary of the property on which the biosolids are applied.

E32.9. Special information requirements

There are no special information requirements in this section.