Natural Resources Regional Plan

Chapter 3 – Air Quality

Objective AQL1 Objective for localised air quality

Localised contaminant discharges into air do not, either on their own or in combination with other discharges, result in significant adverse effects on the environment, including:

(a) the loss of air as a taonga to Tāngata Whenua; and
(b) adverse effects on human health and safety; and
(c) offensive or objectionable odours; and
(d) diminished visibility, as a consequence of human activities; and
(e) corrosion and soiling of structures, not being property owned by those causing the discharge; and
(f) adverse effects on health and functioning of ecosystems, plants and animals; and
(g) contamination of water.

Policy AQL5 Avoid odour nuisance

(a) Prevent any discharge of odour from new activities that discharge contaminants into air, such that it does not cause offensive or objectionable effects beyond the boundary of any site where it originates. Where a new activity is unable to do this then that activity shall as far as practicable locate away from sensitive areas and activities.
(b) Where appropriate existing activities that discharge contaminants into air shall adopt the best practicable option to avoid remedy or mitigate offensive or objectionable effects of odour such that they do not cause offensive or objectionable effects beyond the boundary of any site from which they originate.
(c) Avoid encroachment of sensitive activities on existing activities discharging odorous contaminants into air, unless adverse effects of the odour can be avoided or mitigated by the encroaching activity.

For the purposes of this policy: new activities are those activities which are established after 1 June 2002 or not lawfully established on or before 1 June 2002; and existing activities are those activities which are lawfully established on or before 1 June 2002.

Policy AQL8: Control all other discharges to air

Control discharges of contaminants to air not specifically provided for in Policies AQL1 to AQL7 by:

(a) allowing as permitted activities discharges of contaminants into air from industrial or trade premises or industrial or trade processes that have no more than minor adverse effects on the environment; and
(b) avoiding, remedying or mitigating adverse effects of localised ground level concentrations of contaminants, including cumulative effects, on:
    (i) human health; and
    (ii) the health and functioning of ecosystems, plants and animals; and
    (iii) values of significance to Tāngata Whenua; and
    (iv) cultural and amenity values; and
(c) applying the precautionary approach to the discharge of hazardous air pollutants identified in Schedules AQL1 and AQL2.

Chapter 4 – Water Quality

Objective WQL2: Water quality outcomes for groundwater and contaminated land

(1) In the Coastal Confined Gravel Aquifer System between the Ashley River/Rakahuri and the Rakaia River, the water quality in each aquifer is maintained at least in the state reported in July 2002, and the water is suitable for human consumption without treatment.

(2) In semi-confined, unconfined, and other confined aquifers or parts of these aquifers, where:

(a) the water quality is unaffected or largely unaffected by human activities, as reported in 2004, maintain the water quality in that state.

(b) the water quality is affected by human activities, the groundwater quality shall meet the following values:

(i) for nitrate-nitrogen, the maximum concentration shall not increase by more than two milligrams per litre above the maximum concentration measured between 1996 and 2001, and reported in 2002, and the maximum concentration shall not exceed 11.3 milligrams per litre;

(ii) the water quality shall remain within the Guideline Value for any aesthetic determinand listed in the Drinking Water Standards for New Zealand 2000[35], except for natural exceedances of the Guideline Value. If the water quality does not meet the Guideline Value, as a result of human activities, the water quality shall be improved so that the Guideline Value is achieved;

(iii) the median concentration of *Escherichia coli* shall be less than one organism per 100 millilitres of water; and

(iv) any other inorganic or organic determinand of health significance or pesticide (excluding nitrate nitrogen, or *Escherichia coli*,) listed in the Drinking Water Standards for New Zealand 2000 shall not be detected at a concentration greater than one tenth of the Maximum Acceptable Value for that determinand.

(c) On land, where the concentration of a contaminant exceeds the naturally occurring background level and this concentration poses an unacceptable risk to human health or the environment, the land is managed in a way that reduces this risk, and the risk from any discharge from the land to groundwater, to a level that is acceptable for human health or the environment.

Policy WQL6 Point source discharges onto or into land which affect soil or groundwater quality

(1) A point source discharge of a contaminant onto or into land is to be managed as follows:

(a) before allowing a point source discharge of a contaminant onto or into land where a contaminant may enter groundwater, ensure that:

(i) measures are or will be applied to avoid the production of the contaminant, or to reuse, recover, and recycle materials to minimise the volume and concentration of the contaminant in the discharge; and

(ii) the discharge to an existing waste treatment and discharge system, or network is not a practical alternative; and

(b) if, after the application of Policy WQL6(1), a point source discharge onto or into land is to be authorised, the discharge shall be applied in a way and at a rate that:

(i) does not exceed the infiltration capacity of the soil or subsoil at the site of the discharge; and

(ii) does not exceed the capacity of physical properties, or chemical and biological processes in the soil or subsoil, to reduce the contaminant concentration in the soil drainage water and to minimise the concentration of any contaminant entering groundwater; and

(iii) will not result in the accumulation of a contaminant in the soil which will limit the future use of the land; and

(c) if, after the application of Policy WQL6(1)(a) and WQL6(1)(b), a point source discharge onto or into land is likely to result in a contaminant:

(i) entering groundwater, including groundwater that emerges as surface water, then:

1. adverse effects on the drinking water quality of groundwater, including the risk to public health or the palatability of the water, in a well adjacent to, or down-gradient of the discharge, or as a result of pumping from a well, are to be avoided;
2. the best practicable option is adopted to ensure that any resulting contaminant plume in groundwater is as small as practicable;
3. the discharge shall not result in the accumulation of a persistent or toxic contaminant in groundwater;
4. the effects of the discharge, either alone or combination with any other discharge, must meet Objectives WQL1 and WQL2; and

(ii) entering the Coastal marine area in a contaminant plume, the effects of the discharge, either alone or combination with any other discharge must meet the requirements of Policy 7.1 or 7.2 of the Proposed Regional Coastal Environment Plan.

(2) Subject to Policy WQL6(1), where a dwelling or premises is serviced by an individual onsite sewage effluent treatment and disposal system, and the system;

(a) is installed after 3 July 2004; or

(b) was lawfully established at 3 July 2004, but the dwelling or premises is modified after 3 July 2004 in a way that alters the nature or volume of the sewage effluent discharge; or

(c) discharges onto or into land in a Community Drinking Water Supply Protection Zone, within five years of the relevant provisions of the plan becoming operative; the system shall be located, constructed, operated and maintained to ensure that:

(i) the effluent is effectively treated before it is discharged so that adverse effects on groundwater quality beyond the property boundary are avoided; and

(ii) the separation distance between the discharge and any other sewage system or a well is sufficient to allow for the natural decay or attenuation of pathogenic micro-organisms in the contaminant plume so that the discharge will not be a significant risk to drinking water quality; and

(d) exists at July 2004, an effluent filter shall be fitted to the outlet of the sewage tank within three years of the relevant provisions of the plan becoming operative.

(3) Avoid adverse effects on water quality from the cumulative effects of discharges into land from individual onsite or small-scale community sewage effluent, stormwater or wastewater treatment and disposal systems by requiring:

(a) the installation of a network and treatment system for sewage effluent, stormwater or wastewater, where:

(i) the density of existing or proposed systems, are or are likely to:

1. adversely effect the quality of water in wells used for drinking water supply or other purposes;
2. be significant sources of contaminants to groundwater in the proximity of a settlement, or in an area where the quality of the groundwater does not meet Objective WQL2(2)(b), or does not meet the requirements of Policy 7.1 or 7.2 of the Proposed Regional Coastal Environment Plan; or

(ii) there is insufficient distance between individual discharges, other discharges, wells or groundwater:

1. to allow for the natural decay or attenuation of pathogenic micro-organisms in the contaminant plumes; or
2. to prevent the elevation of groundwater levels to an extent that drainage is impeded, limiting land uses or the infiltration of the discharge or any other discharge onto or into land; or

(iii) the soil or subsurface material has inadequate infiltration capacity and this is likely to result in discharges ponding on the ground or flowing into surface water; or

(b) a community, which is not serviced by a network system, to meet the requirements of Policy WQL6(2) or 3(a), within five years of receiving a

written request from Environment Canterbury, where the cumulative effects of existing discharges or from an increase in the number of individual on-site systems, is or is likely to result in:

(i) significant adverse effects on aquatic ecosystems, existing uses or values of fresh or coastal water; or

(ii) adverse effects on public health; or

(iii) a significant contribution or an increase of contaminants discharging to groundwater in areas where the quality of the groundwater does not meet Objective WQL2(2)(b).

Policy WQL9 Non-point source discharges to land that may affect groundwater quality

(1) Minimise the leaching of nutrients, chemical and microbiological contaminants to groundwater by requiring:

(a) the use of best management practices to:

(i) manage the input of nitrogen so that it matches plant requirements; and

(ii) prevent the accumulation of mineral nitrogen or other contaminants in the soil which have a high potential for leaching.

(b) that the use of water for irrigation:

(i) is in accordance with Policy WQN17; and

(ii) does not result in groundwater quality in any existing drinking water supply well, adjacent to, or down-gradient of the property being irrigated, being affected to the extent that the water in the well is no longer suitable for human consumption; and

(iii) does not result in the maximum concentration of nitrate-nitrogen in any part of an unconfined or semi-confined aquifer at the downgradient boundary of a property:

1. increasing beyond the range that occurs or would have occurred in the groundwater under extensive grazing of unimproved pasture in the catchment up-gradient of the property. This applies to properties located in the Waitaki basin above Lake Benmore, the Ashburton lakes area, upper Orari catchment, or the upper catchment of a braided river; and
2. exceeding the values of Objective WQL2(2)(b)(i), where the property is located in the Hakataramea Valley, the Fairlie basin, the Waiau-Culverden basin, the Hanmer basin or Lees Valley.

(2) In areas where groundwater quality has declined because of non-point source discharges and the concentrations of determinands in groundwater do not meet Objective WQL2, implement measures to reduce the concentration of determinands in groundwater in accordance with the relevant provisions of Policy WQL4(2) and WQL4(3).

(3) Where groundwater enters rivers or lakes, the contaminant concentrations in the groundwater shall not result in the surface water quality being reduced below the values of; Objective WQL1, or any relevant water quality standard set in this plan or by a water conservation order.

Chapter 8 – Soil Conservation

Objective SCN3: Contaminant accumulation

The widespread accumulation of any potentially contaminating substance that is persistent, immobile and toxic in the soil does not reach concentrations likely to:

(a) reduce the life-supporting capacity of the soil, including the health and functioning of soil ecosystems;

(b) reduce the productivity and versatility of soils for future uses; or

(c) impact on important cultural values associated with the land, including its mauri, sites of significance to Ngai Tahu, and mahinga kai values.

Policy SCN9: Avoid future contamination

Any future land use that has the potential to result in the widespread and persistent contamination of soils should not be established or continued unless effective measures have been taken to avoid significant adverse effects on the soil environment.