

# **5 REGIONAL PLAN OBJECTIVES AND POLICIES**

## 5.1 Environmental Objectives and Policies

---

- 5.1.1 This Chapter establishes the resource management direction for the functions for which the Council has chosen to exercise its management responsibility through the preparation of a regional plan (other than a Regional Coastal Plan).
- 5.1.2 The environmental objectives and policies in sections 5.2 to 5.8 form the framework of environmental management for the Regional Plan. In order to achieve the objectives for each resource – land, air, surface water, groundwater and the use of river and lake beds - there is a policy in the form of a guideline, followed by a policy stating how implementation of the guideline will occur. Because the nature and use of each resource varies, the type and form of guideline for each resource will also vary, from the general to the specific. There is no “across the board” means of implementation of environmental guidelines.
- 5.1.3 The important factor, from HBRC’s point of view, is that the guidelines add value to Part II of the RMA by specifying the general direction for the HBRC and resource users to work towards, rather than relying on the RMA.
- 5.1.4 The environmental guidelines will be implemented in a variety of ways including through the following means:
- (a) **Regional rules** – The environmental policies have been incorporated in specific regional rules (contained in Chapter 6) as appropriate, especially those rules regulating discharges of contaminants into air and activities affecting river and lake beds. This means that they must be complied with for an activity to be classified in accordance with any such rule. For example, if they are used in a rule for a permitted activity, they must be complied with to avoid the need to obtain a resource consent. This is the most significant way in which the environmental policy for air quality will be used.
  - (b) **Resource consent decision making** – For those activities requiring a resource consent, the consent authority must have regard to any relevant provisions of a regional policy statement or proposed regional policy statement and any plan or proposed plan. The environmental policies would therefore be an important factor considered by a consent authority in making decisions on resource consent applications. This is the most significant way in which the environmental policies for surface water quality, ground water quality, and river and lake beds will be used.
  - (c) **Unregulated activities** – The environmental policies can also be used for activities that are unregulated. Under section 17(1) of the RMA, every person has “a duty to avoid, remedy, or mitigate any adverse effect on the environment arising from an activity carried on by or on behalf of that person, whether or not the activity is in accordance with a rule in a plan [or] a resource consent ...”. Enforcement orders and abatement notices may be issued in accordance with this general duty (as set out in section 17(3) of the RMA). HBRC will use the environmental policies as a guide to implementing section 17 of the RMA for unregulated activities.
  - (d) **Non-regulatory methods** – The policies will be used to give direction to the implementation of non-regulatory methods, to prioritise activities and enable areas in most need to be addressed first. For example, financial incentives for land management or riparian enhancement will target those land areas or water bodies most in breach of the respective environmental guidelines. This is the most significant way in which the environmental guidelines for land will be used.
  - (e) **Territorial authorities** – District plans prepared by territorial authorities (district and city councils) must not be inconsistent with this Regional Plan. In addition, territorial authorities must have regard to this Regional Plan when considering consent applications. Hence, these policies will also form a part of the resource management framework used by territorial authorities, and will form the basis of HBRC submissions to territorial authorities on relevant resource management matters.

## 5.2 Land

### OBJECTIVE

**OBJ 38** The sustainable management of the land resource so as to avoid compromising future use and water quality.

*Refer section 2.2 of this Plan*

### POLICY

#### **POL 67 ENVIRONMENTAL GUIDELINES - LAND**

5.2.1 To encourage landowners and occupiers to manage the effects of activities affecting soil (including both land use activities and discharges of contaminants onto or into land) in accordance with the environmental guidelines set out in Table 5 below and Table 7 following.

**Table 5. Environmental Guidelines – Land**

<b>Issue</b>	<b>Guideline</b>
<b>1. Appropriate land use</b>	Land use activities should not exceed the land use capability <sup>13</sup> of the subject land, as described in Schedule II to this Plan and assessed on-site.
<b>2. Soils prone to wind erosion</b>	Areas prone to wind erosion from land use activities should have preventative or remedial measures applied. The depth of soil should not be reduced at a rate that exceeds the natural rate of replenishment.
<b>3. Soils prone to other types of erosion</b>	Where vegetation is removed from areas prone to erosion, best management practices should be followed. These should include replanting the area within 18 months with vegetation that will provide equivalent or better land stabilisation, or other recognised methods that will stabilise land or prevent erosion.
<b>4. Soil health</b>	There should be no long-term degradation of the physical properties (including soil structure) or biological properties (including organic matter content) of soil.
<b>5. Soil contamination</b>	The discharge of contaminants into the soil, including hazardous substances, pathogens and diseases, should be at a level that will not cause acute or chronic toxic effects on humans or other non-target species, or have the potential to reduce long-term land use potential.
<b>6. Earthworks, roading, tracking</b>	In order to meet the surface water quality guidelines set out in section 5.4 where land is subject to earthworks, best practice should be adopted to mitigate or avoid the effects of runoff into water bodies (as necessary according to the erodibility of the soil).

#### **Explanation and Reasons**

5.2.2 Objective 38 establishes the overall objective for land management in Hawke's Bay. It is based on the principle that land outside that used for urban, commercial or industrial activities should be used in a sustainable manner such that future use options and water quality are not compromised. The policies, which support the objective, establish how the land resource may be sustainably managed and how Council's land management functions will be implemented. For example, highly fertile flat to rolling land is likely to

<sup>13</sup> "Land Use capability" refers to the assessed capability of an area of land to sustain a range of land use activities. The Hawke's Bay Regional Council has land use capability maps for the whole region – these are presented in Schedule II of the Planning Maps and should be read in conjunction with Schedule II of the text.

be suitable for a wide range of uses, including intensive cropping, horticulture, pastoral farming and forestry. By comparison, much of the land in Hawke's Bay is suitable for significantly fewer land use activities. Some areas may not be suitable for pastoral farming or in very steep, erodible areas for forestry. Land use capability throughout the region has been mapped as part of the New Zealand Land Resource Inventory. This information is presented in Schedule II to this Plan. However the land use capability of specific sites requires individual on-site assessments.

5.2.3 Policy 67 establishes environmental guidelines for land. Guideline 1 continues the approach taken in the objective, that land should be used within its suite of sustainable land use activities. As noted above, Schedule II provides more detail on what this means in practice. Guidelines 2 to 6 address both physical parameters (soil erosion, vegetation removal, and earthworks) and chemical and biological parameters (soil health and soil contamination).

5.2.4 The visual soils assessment technique has been developed to provide soil health indicators for use by land users. A state of the environment monitoring framework is being developed for hill and flat land. Until this study is completed, a comparison of existing land use against land use capability will be the primary method of assessing the state of the soil resource in Hawke's Bay. This is shown in the maps in Schedule II to this plan, which are at a scale suitable for regional assessments. However the sustainable land use index of specific sites requires individual on-site assessments. Those areas identified as being used outside their capability can be assumed to be at most risk of soil loss or degradation.

## **POL 68 IMPLEMENTATION OF ENVIRONMENTAL GUIDELINES – LAND**

5.2.5 To implement the environmental guidelines for land set out in Policy 67 in the following manner:

- (a) **Non-regulatory methods** – The environmental guidelines for land will be predominantly implemented through non-regulatory methods, including the provision of financial incentives, the preparation of farm plans, and the provision of information, field days and other educational services.
- (b) **Unregulated activities** – If necessary, the environmental guidelines will be used as a guide to ascertain whether the provisions of section 17 of the RMA have been breached (the duty of every person to avoid, remedy or mitigate any adverse effect on the environment).
- (c) **Regulatory methods** - In association with the above non-regulatory methods to regulate vegetation clearance in accordance with the rules set out in Chapter 6 where significant adverse effects occur as a result of the vegetation clearance activities.

### **Explanation and Reasons**

5.2.6 The environmental guidelines for land will largely be used in association with non-regulatory methods, based on HBRC's overall stance to continue its approach of imposing very few rules regulating land use activities.

***Rule 7 is intended to allow most vegetation clearance as permitted activities providing water quality is reasonably protected and the activities do not impact adversely off-site.***

## **ANTICIPATED ENVIRONMENTAL RESULTS**

<b>Anticipated Environmental Result</b>	<b>Indicator</b>	<b>Data Source</b>
Land use activities not exceeding land use capability of subject land	% region being sustainably managed against land use capability	Land cover mapping (5 yearly)
Areas prone to wind erosion have remedial measures applied	% vulnerable land protected by shelterbelts or vegetative cover	Survey (5 yearly)
Areas prone to erosion are replanted within 18 months	Number of incidents reported/complaints received	Council records
No long term degradation of physical or biological properties	Flat land "500 soils" assessments Hill country –"Visual soil Assessment" technique	State of Environment monitoring

Anticipated Environmental Result	Indicator	Data Source
Reduction in number of sites with significant levels of contaminants in soils	Level of contamination below that which causes acute or toxic effects on humans, other non-target species, or reduces long term land use potential	Compliance monitoring
Surface water quality guidelines are met	<ul style="list-style-type: none"> <li>▪ Temperature not changed by more than 3°C, nor raised above 25°C</li> <li>▪ Dissolved oxygen not exceeding guideline value</li> <li>▪ Ammoniacal nitrogen levels not exceeding guideline values</li> <li>▪ Soluble reactive phosphorous values not exceeding guideline values</li> <li>▪ No loss of fish species or indigenous invertebrates</li> </ul>	Council surface water quality monitoring programme  Annual SER Reporting

## 5.3 Air Quality

### OBJECTIVE

- OBJ 39** The maintenance of a standard of ambient and local air quality that is not detrimental to human health, amenity values, or the life-supporting capacity of air.

*Refer section 2.2 of this Plan*

### POLICY

#### **POL 69 ENVIRONMENTAL GUIDELINES – AIR QUALITY**

- 5.3.1 To manage the effects of activities affecting air quality in accordance with the environmental guidelines set out in Table 6 below.

**Table 6. Environmental Guidelines – Air Quality**

<b>Issue</b>	<b>Guideline</b>
<b>1. Odour</b>	There should be no offensive or objectionable odour beyond the boundary of the subject property <sup>14</sup> .
<b>2. Gases, airborne liquid &amp; other noxious or dangerous contaminants</b>	There should be no noxious or dangerous levels of gases or other airborne or airborne liquid contaminants beyond the boundary of the subject property, in concentrations and at locations that are likely to cause adverse effects on human health, ecosystems or property.
<b>3. Smoke &amp; water vapour</b>	The discharge should not result in any smoke, water vapour or other contaminant that adversely affects traffic safety, or reduces horizontal visibility within 5 m of ground level beyond the boundary of the subject property.
<b>4. Dust</b>	Any dust deposition should not raise the ambient dust deposition rate by more than 4 g/m <sup>2</sup> per 30 days at any point beyond the boundary of the subject property.
<b>5. Particulate matter</b>	There should be no objectionable deposition of particulate matter on any land or structure beyond the boundary of the subject property.
<b>6. Ambient air quality</b>	The ambient air quality should remain within the New Zealand Ambient Air Quality Guidelines <sup>15</sup> . Where existing ambient air quality is better than these Guidelines, there should be no significant degradation of ambient air quality.

### **Explanation and Reasons**

- 5.3.2 Prior to this Plan being prepared, the HBRC had already established an approach for air management in its former Regional Air Plan. Objective 39 continues the direction set by the objectives of this former Plan. In particular, it recognises the need to focus on both ambient air quality and local air quality. Similarly, the environmental guidelines set out in Policy 69 follow the direction set in the former Regional Air Plan for regulating discharges of contaminants into air. This policy seeks to manage the range of effects that can be caused by discharges of contaminants into air, drawing on common conditions contained in rules in the former Regional Air Plan and in resource consents granted by the HBRC.
- 5.3.3 Guidelines 1 to 5 largely address localised effects, recognising that these are the most common air quality problems. By comparison, Guideline 6 addresses ambient air quality. This guideline applies the New Zealand Ambient Air Quality Guidelines as a “bottom line”,

<sup>14</sup> “**Subject property**” means the legally defined property, whether private land or public land, within which the subject activity occurs and includes all land that is under common ownership.

<sup>15</sup> Ministry for the Environment (1994) **Ambient Air Quality Guidelines**, Ministry for the Environment, Wellington, New Zealand.

but also specifies that where existing quality is better than the Ambient Air Quality Guidelines (which is the case throughout Hawke's Bay), the present air quality should be maintained. In other words, the existing air quality should not be allowed to degrade to the level of contamination specified in the New Zealand Ambient Air Quality Guidelines.

## POL 70 IMPLEMENTATION OF ENVIRONMENTAL GUIDELINES – AIR QUALITY

5.3.4 To implement the environmental guidelines for air quality set out in Policy 69 predominantly in the following manner:

- (a) **Regional rules** – The environmental guidelines have been incorporated primarily in conditions, standards and terms in the rules set out in Chapter 6 of this Plan as appropriate. The environmental guidelines for air quality that refer to 'noxious', 'dangerous', 'offensive' or 'objectionable' effects will be interpreted in the manner described in section 6.1.4 of this Plan, and in accordance with any relevant case law.
- (b) **Resource consents** – The environmental guidelines will also be used in the process of making decisions on resource consents, in accordance with section 104 (1)(b) of the RMA.
- (c) **Non-regulatory methods** – Non-regulatory methods will also be used, where appropriate, to encourage compliance with the guidelines.

### Explanation and Reasons

5.3.5 Policy 70 establishes that, unlike the environmental guidelines for land (which will largely be used in a non-regulatory manner), the environmental guidelines for air quality have been used to guide regulation. They have been used in rules, and will be used in resource consent processes. Policy 70 (a) cross-references section 6.1.4 of this Plan, which provides some guidance on interpretation of the terms 'noxious', 'dangerous', 'offensive' or 'objectionable'. These terms are commonly used in the regulation of discharges of contaminants into air.

### ANTICIPATED ENVIRONMENTAL RESULTS

Anticipated Environmental Result	Indicator	Data Source
No offensive or objectionable odour beyond the boundary of any subject property	Number, nature and type of resource consent, and reported incidents of odour	Compliance monitoring Incident monitoring
No noxious or dangerous gases or airborne liquid or other airborne contaminants beyond the boundary of any subject property	Number, nature, type and location of resource consent, and reported incidents of spray drift and other contaminants	Compliance monitoring Incident monitoring
Reduction in number of incidents where smoke, water vapour or other contaminants reduce visibility or affect traffic safety	Visibility monitoring	5 yearly monitoring for input into State of the Environment Report (SER) Incident monitoring
Reduction in occurrences of dust deposition which exceed guidelines beyond subject property boundary	Dust deposition should not exceed the guidelines value of 4 g/m <sup>2</sup> per 30 days	Annual SER update reporting Incident monitoring

Anticipated Environmental Result	Indicator	Data Source
Reduction in occurrences of objectionable deposition of particulate matter beyond subject property boundary	The accumulation of particulate matter	Annual SER update reporting
Ambient Air Quality	NO <sub>x</sub> , SO <sub>x</sub> , and CO <sub>2</sub>	Four yearly monitoring

## 5.4 Surface Water Quality

### OBJECTIVE

- OBJ 40** The maintenance of the water quality of specific rivers in order that the existing species and natural character are sustained, while providing for resource availability for a variety of purposes, including groundwater recharge.

*Refer section 2.2 of this Plan*

### **Explanation and Reasons**

- 5.4.1 Prior to this Plan being prepared, the HBRC had already established an approach of managing rivers, lakes and wetlands for the purposes of aquatic ecosystems in its former Regional Policy Statement and Regional Water Resources Plan. These documents had also signalled the need to manage water quality for the purpose of contact recreation where this was practicable and desirable. Objective 40 above continues this overall approach – it establishes that rivers, lakes and wetlands are to be managed for both aquatic ecosystems and contact recreation purposes, where appropriate. During the life of this Plan the Council will continue to work towards surface water management on a catchment by catchment basis. The goal of managing for contact recreation purposes does not pre-suppose that contact recreation will occur, but rather sets a guideline which is another stage in the overall attainment of better water quality. Those stretches of river near the coast which are influenced by the sea will have guidelines which reflect the water quality expectations of the coastal marine areas, as set out in the Regional Coastal Plan.

### POLICIES

#### **POL 71 ENVIRONMENTAL GUIDELINES - SURFACE WATER QUALITY**

- 5.4.2 To manage the effects of activities affecting the quality of water in rivers, lakes and wetlands in accordance with the environmental guidelines set out in Tables 7 and 8<sup>16</sup>.

**Table 7. Environmental Guidelines – Surface Water Quality  
Part I - Guidelines that apply across the entire Hawke's Bay region**

<b>Issue</b>	<b>Guideline</b>
<b>1. Temperature</b>	The temperature of the water should be suitable for sustaining the aquatic habitat.
<b>2. Dissolved oxygen</b>	The concentration of dissolved oxygen should exceed 80% of saturation concentration.
<b>3. Ammoniacal nitrogen</b>	The concentration of ammoniacal (N-NH <sub>4</sub> <sup>+</sup> ) should not exceed 0.1 mg/l.
<b>4. Soluble reactive phosphorus</b>	The concentration of soluble reactive phosphorus should not exceed 0.015 mg/l.
<b>5. Clarity</b>	In areas used for contact recreation, the horizontal sighting range of a 200 mm black disk should exceed 1.6 m.

These guidelines apply after reasonable mixing and disregarding the effect of any natural perturbations that may affect the water body, as set out in Policy 72.

<sup>16</sup> Comparison of guidelines with existing water quality – Schedule III gives detailed explanation and reasons for the environmental guidelines for surface water quality, and the annual State of the Environment Update Report (HBRC) provides information on existing water quality.

**Table 8. Environmental Guidelines – Surface Water Quality  
Part II - Guidelines that Apply to Specific Catchments**

Catchment Area	Faecal Coliforms (cfu/100 ml)	Suspended Solids (mg/l)
Aropaoanui River	200	50
Live Rivers and tributaries	200	10
Esk River	200	50
Ikanui Stream	200	50
Kopuawhara Stream	200	50
Mangakuri Stream	200	50
Maraetotara River	200	50
Mohaka River	50	10
Ngaruroro River upstream of Fernhill Bridge	50	10
Ngaruroro River between Fernhill Bridge and Expressway Bridge	100	25
Ngaruroro River downstream of the Expressway Bridge	150	25
Opoutama Stream	200	50
Papanui Stream	150	10
Porangahau River	200	50
Puhokio Stream	200	50
Taharua Stream	50	10
Tukituki River and tributaries upstream of SH50	50	10
Tukituki River and tributaries between SH50 and Tamumu Bridge	200	10
Tukituki River downstream of Tamumu Bridge	100	10
Tutaekuri River upstream of Redclyffe Bridge	50	10
Tutaekuri River between Redclyffe Bridge and SH50	100	25
Tutaekuri River downstream of the Expressway Bridge	150	25
Waingonoro Stream	200	50
Waipatiki Stream	200	50
Waipuka Stream	200	50
Wairoa River and tributaries upstream of Frasertown	100	25
Wairoa River at and downstream of Frasertown	200	25

These guidelines apply after reasonable mixing and disregarding the effect of any natural perturbations that may affect the water body, as set out in Policy 72.

\* The figures in Table 8 represent concentrations of contaminants in the water body that should not be exceeded after reasonable mixing.

#### Explanation and Reasons

- 5.4.3 Policy 71 sets out the surface water quality guidelines. In most cases, existing water quality reaches the levels set. However in some cases, such as faecal coliforms, there is a need for improvement. Overall, the present water quality of rivers and lakes throughout the region is good. Indeed, some water quality parameters are at a level throughout the region that limits the onset of problems, e.g. soluble reactive phosphorus is at a sufficiently low level that it restricts the undesirable growth of green algal slimes.
- 5.4.4 The water quality guidelines set out in Policy 71 are likely to be refined in future. The Ministry for the Environment is currently undertaking a substantial amount of work that is likely to influence the resource management approaches of regional councils in future. In particular, the Ministry is developing a suite of environmental indicators, and a methodology classifying specific reaches of catchments for different management purposes. As this information becomes available, the HBRC is likely to build upon, and refine, its present overall direction for water quality management (rather than start afresh). This is likely to mean that, in future, more detailed water management objectives and standards will be developed on a reach-by-reach basis for surface water resources in the region.

5.4.5 The relevance of the specific water quality parameters chosen in Policy 71 is as follows (note that further explanation and reasons of the parameters used is provided in Schedule III while the State of the Environment Report and Annual Updates provide information on existing water quality for comparative purposes):

- (a) **Temperature** – Temperature changes have a significant effect on the functioning of aquatic ecosystems. Particular increases in temperature have adverse effects.
- (b) **Dissolved oxygen** – An adequate concentration of dissolved oxygen is critical for sustaining aquatic life. An inadequate level is akin to ‘suffocating’ the aquatic ecosystem.
- (c) **Ammoniacal nitrogen** – Ammoniacal nitrogen is toxic to aquatic fauna and, in sufficient concentrations, can also be linked to adverse instream pH and hardness. High concentrations are generally as a result of animal faecal material and decomposing organic matter being carried into waterways.
- (d) **Soluble reactive phosphorus** – The presence of high concentrations of soluble reactive phosphorus can result in undesirable biological growths. It can also indicate that land use practices may not be appropriate, e.g. fertiliser application, grazing or cultivation of river margins. Soluble reactive phosphorus is naturally low in waterways in Hawke’s Bay – maintaining these low levels will assist in the maintenance of instream habitat.
- (e) **Faecal coliforms** – Faecal coliform bacteria are a general indicator of mammalian contamination, including human sewage. In sufficient numbers, faecal coliform bacteria denote a significant health risk. Achieving low levels is thus critical for contact recreation purposes. High numbers can also restrict macroinvertebrate fauna, and increase the abundance of benthic slimes and macro flora.
- (f) **Suspended solids and clarity** – The presence of high levels of suspended solids or turbidity can inhibit the abundance of fish species, and reduce the diversity and abundance of instream life in general and restrict other uses. Poor clarity is likely to restrict contact recreation use.

## **POL 72 IMPLEMENTATION OF ENVIRONMENTAL GUIDELINES - SURFACE WATER QUALITY**

5.4.6 To implement the environmental guidelines for surface water quality predominantly in the process of making decisions on resource consents in accordance with section 104 (1)(b) of the RMA, and in accordance with the following approach:

- (a) **After reasonable mixing** - The environmental guidelines apply to surface water bodies after reasonable mixing of contaminants<sup>17</sup>, and disregarding the effect of any natural perturbations that may affect the water body. The exception is where water diverted or discharged into water from a hydro-electric power scheme entrains sediment between the point of discharge and the point of reasonable mixing, causing a breach of the suspended sediments guidelines c (i) and (ii) below. In this case, the guidelines may apply at the point of discharge, disregarding the effect of any natural perturbations that may affect the water body.
- (b) **At or below median flows or levels for all guidelines except suspended solids** – All environmental guidelines, except those for suspended solids, apply to flowing surface water bodies when the flow of water is at or less than the median flow, or for non-flowing water bodies, the level of water is at or less than the median level.
- (c) **At all flows for suspended solids** – The guidelines for suspended solids apply as follows:

---

<sup>17</sup> For the purposes of this Regional Plan, “reasonable mixing in surface water” of contaminants in surface water will generally be considered to have occurred as follows:

- a) In relation to flowing surface water bodies, at whichever of the following is the least:
    - (i) a distance 200 metres downstream of the point of discharge
    - (ii) a distance equal to seven times the bed width of the surface water body, but which shall be not less than 50 metres, or
    - (iii) the distance downstream at which mixing of contaminants has occurred across the full width of the surface water body, but which shall not be less than 50 metres.
  - b) In relation to lakes, at a distance 15 metres from the point of discharge.
- Alternatively, for activities that are subject to resource consents, “reasonable mixing” may be determined on a case by case basis through the resource consent process.

- (i) At times when the suspended solids concentration is less than the specified guideline for a particular water body and location, an activity should not cause, or contribute to, a breach of the specified guideline. In no case should an activity cause more than a doubling of the suspended solids concentration or turbidity of the receiving water body.
- (ii) At times when the suspended solids concentration is equal to or greater than the specified guideline, an individual activity should not cause the concentration of suspended solids or the turbidity in any river or lake to increase by more than 10%, as determined on a case by case basis.

[Note that the HBRC recognises that some resource users prefer to measure clarity, rather than concentrations of suspended solids or turbidity. While there is not a direct relationship between suspended solids and clarity that can be applied across the region, the HBRC is happy to work with any such resource users to establish allowable changes in clarity corresponding to the suspended solids limits where this is required.]

- (d) **Existing good water quality** – Where existing water quality is better than the guidelines, no more than minor degradation of water quality will be allowed.
- (e) **Improvement of poor water quality** – Where existing water quality is poorer than the guidelines, the following approach will be adopted:
  - (i) **Regulated activities** – Where activities that are regulated by way of resource consents (e.g. discharges of contaminants into water) are the predominant cause of poor water quality, improvements will be sought at the time of granting, reviewing or renewing the consent while having regard to the following:
    - the degree to which the activity adversely affects aquatic ecosystems and contact recreation
    - the extent to which the activity causes the poor water quality relative to other activities
    - for existing activities, the need to allow time to achieve the required improvements.

Where activities that are regulated by way of resource consents are not the predominant cause of degraded water quality, conditions will be imposed on such consents to avoid further degradation of water quality unless the HBRC is satisfied that:

- the activity will not cause any significant adverse effects on aquatic ecosystems and contact recreation
  - exceptional circumstances justify allowing further degradation, or
  - in the case of discharges, the discharge is of a temporary nature, or is associated with necessary maintenance work.
- (ii) **Unregulated activities** – Where activities that are unregulated are the predominant cause of poor water quality, non-regulatory methods (as set out in Chapter 4) will be used as the primary means for achieving an improvement in water quality, in particular:
    - the provision of financial incentives to facilitate improved land management practices, including the retirement of riparian margins, or to enhance wetlands
    - the provision of education and co-ordination.

Where no improvement or where further degradation is evident over time as a result of unregulated activities, the HBRC will consider the need for regulation of these activities.

- (f) **Recognition of variables** – Consideration of the environmental guidelines will take into account the measurement uncertainties associated with variables such as location, flows, seasonal variation and climatic events.
- (g) **Temporary / maintenance activities** (including those required for the management of a commercial forest) – Consideration of the environmental guidelines in relation to discharges will take into account the degree to which a discharge is of a temporary nature, or is associated with maintenance work.

**Explanation and Reasons**

5.4.7 Policy 72 sets out how the surface water quality guidelines are to be implemented. It specifies that the guidelines are to be implemented largely through resource consent processes, and then sets out the manner in which the guidelines will be used. This policy makes it clear that, where existing water quality is better than the guidelines, the present water quality should be maintained. By contrast, where existing water quality is worse than the guidelines, the Council will seek improvements by way of resource consents or non-regulatory methods as appropriate.

**ANTICIPATED ENVIRONMENTAL RESULTS**

<b>Anticipated Environmental Result</b>	<b>Indicator</b>	<b>Data Source</b>
Surface water bodies suitable for sustaining aquatic ecosystems	1. Temperature not changed by more than 3°C, nor raised above 25°C. 2. Dissolved oxygen not falling below guideline levels. 3. Ammoniacal nitrogen levels not exceeding guideline values. 4. Soluble reactive phosphorus values not exceeding guideline values. 5. Diversity and quantities of fish species or indigenous invertebrates is maintained.	Council Water Quality monitoring programme  Annual SER monitoring

## 5.5 Surface Water Quantity

---

### OBJECTIVE

**OBJ 41** The maintenance of the water quantity of specific rivers in order that the existing aquatic species and the natural character<sup>18</sup> are sustained, while providing for resource availability for a variety of purposes, including groundwater recharge.

*Refer section 2.2 of this Plan*

### **POL 73 ENVIRONMENTAL GUIDELINES - SURFACE WATER QUANTITY**

- (a) To sustain aquatic ecosystems by establishing a minimum flow in a river as that level which will maintain the existing ecosystem.
- (b) On rivers (or water management zones) where minimum flows have been established, all takes for which a resource consent is required will be required to cease when the river is flowing at or below the minimum flow. Except that where the taking has, as a primary purpose, the provision of drinking water to people or animals taking could be restricted to the level necessary to maintain human or animal welfare.
- (c) To provide a known level of risk to resource users by ensuring that, for rivers with an established minimum flow, the total allocation authorised through the resource consent process does not result in authorised takes being apportioned, restricted or suspended for more than 5% of the time on average during November-April.
- (d) To sustain the natural character of the surface water body when determining the minimum flows and allocatable volumes for surface water bodies in Table 9.

#### **Explanation and Reasons**

5.5.1 Policy 73 recognises that Hawke's Bay is prone to extended dry periods when river flows can decrease dramatically. During these periods it is important to ensure, as far as possible, that aquatic ecosystems are not placed under additional stress over and above that which occurs naturally. In addition, the uses of water provided for as of right by the RMA (domestic use, stock water and fire fighting) need to be safeguarded.

### **POL 74 IMPLEMENTATION OF ENVIRONMENTAL GUIDELINES - SURFACE WATER QUANTITY**

- (a) **Resource Allocation:** To define the allocatable volume as being the difference between the summer 7-day Q95 and the minimum flow.
- (b) To implement the environmental guidelines for surface water quantity predominantly in the process of making decisions on **resource consents** in accordance with section 104 (1)(b) of the RMA, through Table 9.

---

<sup>18</sup> For the purposes of Section 5.5 “**natural character**” includes a range of qualities and features, which have been created and sustained by nature as distinct from those which have been constructed by people. The degree or level of natural character within an area depends to an extent to which natural elements, patterns and processes have occurred and the nature and extent of modifications to the natural environment.

**Table 9. Minimum Flow and Allocatable Volumes for Specified Rivers**

River name	Minimum Flow Site Name	Minimum Flow (l/s)	Allocatable Volume (m <sup>3</sup> /week)	Map Reference
Awanui Stream	At The Flume	120	0	V21:357613
Awanui Stream	At Paki Paki Culvert	35	0	V21:351608
Esk River	At Shingle Works	1,400	355,018	V20:432945
Esk River	At SH2	1,100		V20:438939
Irongate Stream	At Clarks Weir	100	0	V21:367666
Kahahakuri Stream	At Onga Onga Road Bridge	200	17,250	U22:096357
Karamu River	At Floodgates	1,100	18,023	V21:427708
Karewarewa River	At Turamoe Road	75	-	V21:341622
Louisa Stream	At Te Aute Road	30	0	V21:410625
Maharakeke Stream	At Station Road	140	0	U23:041255
Makaretu Stream	At Watson Reach	170	53,827	U23:924270
Mangateretere Stream	At Napier Road	100	0	V21:438659
Maraekakaho River	At Tait's Road	100	5,443	V21:170668
Maraetotara River	At Te Awanga Bridge	220	30,971	W21:520661
Ngaruroro River	At Fernhill Bridge	2,400	956,189	V21:330729
Nuhaka River	At Valley Road	80	41,731	X19:225329
Ongaru Drain	Wenley Road	5	0	V21:234653
Papanui Stream	At Middle Road	45	0	V22:278433
Porangahau Stream	At Oruawharo Road	50	-	U23:977259
Pouhokio Stream	At Allens Bridge	80	-	V22:498441
Poukawa Inflow	Site No. 1 (d/s dam)	10	0	V22:282504
Poukawa Inflow	Site No. 1a (u/s dam)	10	0	V22:285502
Poukawa Inflow	Site No. 6	3	0	V22:266478
Poukawa Stream	At Douglas Road	20	0	V22:298533
Raupare Stream	At Ormond Road	300	83,844	V21:398713
Te Waikaha Stream	At Mutiny Road	25	-	V22:361572
Trib. of Kauhauroa Stream	(Taylors)	5	0	X19:970397
Tukipo Stream	At SH 50	150	0	U22:948324
Tukituki River	At Red Bridge	3,500	1,407,751	V22:466581
Tukituki River	At Tapairu Road	1,900	492,307	V22:183312
Tutaekuri River	At Puketapu	2,000	928,972	V21:357812
Tutaekuri-Waimate	At Goods Bridge	1,200	367,114	V21:384751
Waimaunu Stream	At Duncans	10	15,304	X19:229300
Waipawa River	At Waipawa (SH2)	2,300	342,317	V22:163337

**Explanation and Reasons**

- 5.5.2 Objective 41 recognises the need to manage specific rivers for a range of in-stream and out of stream values and uses. It provides guidance on surface water management where there is potential conflict between uses of the water. The requirement is that surface water quantity is maintained to the extent that existing species and natural character (excluding riparian vegetation in this context) are sustained, while providing for out of stream uses of the water including the recharge of aquifers.

- 5.5.3 Policy 74 recognises that Hawke's Bay is prone to extended dry periods when river flows can decrease dramatically. During these periods it is important to ensure, as far as possible, that aquatic ecosystems are not placed under additional stress over and above that which occurs naturally. In addition, the uses of water provided for as of right by the RMA (domestic use, stock water and fire fighting) need to be safeguarded.
- 5.5.4 The criteria for setting minimum flows are based on the following:
- (a) identified or estimated habitat requirements for a range of species which currently exist in the river
  - (b) the need to maintain water quality at low flows
  - (c) the need to meet recreational requirements
  - (d) Maori cultural and spiritual values
  - (e) the application of consistent methodology when setting and reviewing minimum flows
  - (f) the need to adequately provide for the recharge of groundwater.
- 5.5.5 Established minimum flows may be altered by Plan Change on the basis of new information and/or a review of the criteria in relation to the specific river or stream.
- 5.5.6 In order to determine the maximum amount of water that could be sustainably allocated from a river the HBRC has selected the 7-day average flow that is exceeded 95% of the time over the summer period November-April as the key statistic. This statistic (the 7-day Q95) was selected because:
- (a) It takes account of the natural availability of water within rivers.
  - (b) The November–April period is both the period of lowest flows and the time of greatest water demand in Hawke's Bay.
  - (c) The seven day averaged flow smooths out short-term variations that can skew low flow estimates.
  - (d) When a river is fully allocated and fully used the river should not drop below its minimum flow for more than 5% of the summer low flow period.

#### **ANTICIPATED ENVIRONMENTAL RESULTS**

<b>Anticipated Environmental Result</b>	<b>Indicator</b>	<b>Data Source</b>
The minimum flow is established and maintained at levels that provide for the sustaining of aquatic ecosystems and natural character in Hawke's Bay rivers	Measurement of river flow at minimum flow sites	Minimum flow monitoring and analysis
The maintenance of surface water quantity (other than by natural events) at a level which sustains the aquatic ecosystems in the relevant surface water bodies	Physical and biological parameters	Council SER monitoring

## 5.6 Groundwater Quality

### OBJECTIVES

- OBJ 42** No degradation of existing groundwater quality in aquifers in the Heretaunga Plains and Ruataniwha Plains aquifer systems.
- OBJ 43** The maintenance or enhancement of groundwater quality in unconfined or semi-confined productive aquifers<sup>19</sup> in order that it is suitable for human consumption and irrigation without treatment, or after treatment where this is necessary because of the natural water quality.

*Refer section 2.2 of this Plan*

### POLICIES

**POL 75 ENVIRONMENTAL GUIDELINES - GROUNDWATER QUALITY**

- 5.6.1 To manage the effects of activities affecting the quality of groundwater in accordance with the environmental guidelines set out in Table 10.

**Table 10. Environmental Guidelines – Groundwater Quality**

Issue	Guideline
<b>CONFINED, PRODUCTIVE AQUIFERS IN THE HERETAUNGA PLAINS AND RUATANIWHA PLAINS AQUIFER SYSTEMS (as shown in Schedule IV)</b>	
<b>1. No degradation</b>	There should be no degradation of existing water quality.
<b>OTHER PRODUCTIVE AQUIFERS</b>	
<b>1. Human consumption</b>	The quality of groundwater should meet the “Drinking Water Quality Standards for New Zealand” (Ministry of Health, 1995) without treatment, or after treatment where this is necessary because of the natural water quality.
<b>2. Irrigation</b>	The quality of groundwater should meet the guidelines for irrigation water contained in the “Australian Water Quality Guidelines for Fresh and Marine Waters” (Australian and New Zealand Environment and Conservation Council, 1998) without treatment, or after filtration where this is necessary because of the natural water quality.

<sup>19</sup> For the purposes of this Plan a “productive aquifer” means an aquifer that has a sufficient quantity, quality and flow of water that it can be used for water supply purposes.

### Explanation and Reasons

- 5.6.2 Policy 75 recognises the very high quality of groundwater in confined, productive aquifers in the Heretaunga Plains and Ruataniwha Plains aquifer systems, and the strategic importance of these groundwater resources to the region. It therefore establishes a regime of not allowing any degradation of the quality of these aquifers.
- 5.6.3 For other productive aquifers, the objectives and policies continue the approach established in the former Proposed Regional Water Resources Plan, of managing the water within these aquifers for the purposes of human consumption and irrigation. This may allow for some limited degradation of groundwater quality, provided the guidelines for human consumption and irrigation are met.

### POL 76 IMPLEMENTATION OF ENVIRONMENTAL GUIDELINES – GROUNDWATER QUALITY

- 5.6.4 To implement the environmental guidelines for groundwater quality set out in Policy 75 predominantly in the following manner:
- (a) **Resource consents** – The environmental guidelines will primarily be used in the process of making decisions on resource consents, in accordance with section 104 (1)(b) of the RMA.
  - (b) **Regional rules** – The environmental guidelines have also been incorporated in conditions, standards and terms in the rules set out in Chapter 6 of this Plan as appropriate.

And in accordance with the following approach:

- (c) **After reasonable mixing** - The environmental guidelines will apply after reasonable mixing<sup>20</sup> of contaminants, and disregarding the effect of any natural perturbations that may affect the water body.
- (d) **Heretaunga & Ruataniwha Plains confined aquifers** – To not permit any activity that is likely to cause any degradation of groundwater quality in confined productive aquifers in the Heretaunga Plains and Ruataniwha Plains aquifer systems. This means that activities involving the discharge of contaminants over the recharge areas will be regulated.
- (e) **Other productive aquifers with good water quality** - For other productive aquifers where the existing groundwater quality is suitable for human consumption and irrigation (without treatment, or after filtration where this is necessary because of the natural water quality), to ensure that the groundwater quality remains within these guidelines.
- (f) **Other productive aquifers with poor water quality** – Where existing water quality is poorer than the guidelines for “other productive aquifers”, the following approach will be adopted:
  - (i) **Regulated activities** – Where activities that are regulated by way of resource consents (e.g. discharges of contaminants onto land) are the predominant cause of poor water quality, improvements will be sought at the time of granting, review or renewal of consent while having regard to the following:
    - the extent to which the activity causes the poor water quality relative to other activities
    - for existing activities, the need to allow time to achieve the required improvements.

---

<sup>20</sup> For the purposes of this Regional Plan, “reasonable mixing” of contaminants in groundwater is considered to have occurred at whichever of the following is the lesser:

- a) a distance 100 metres from the point of discharge, or
- b) the boundary of the subject property.

Alternatively, for activities that are subject to resource consents, “reasonable mixing” may be determined on a case by case basis through the resource consent process.

Where activities that are regulated by way of resource consents are not the predominant cause of degraded water quality, conditions will be imposed on such consents to avoid further degradation of water quality unless the HBRC is satisfied that:

- exceptional circumstances justify allowing further degradation, or
  - in the case of discharges, the discharge is of a temporary nature, or is associated with necessary maintenance work.
- (ii) **Unregulated activities** – Where activities that are unregulated are the predominant cause of poor water quality, non-regulatory methods (as set out in Chapter 4) will be used as the primary means for achieving an improvement in water quality, in particular the provision of education and co-ordination.

Where no improvement or where further degradation is evident over time as a result of unregulated activities, the HBRC will consider the need for regulation of these activities.

- (g) **Interconnections between aquifers and other water bodies** – Aquifers (including unconfined, unproductive aquifers) that have hydraulic connections with other aquifers or surface water bodies will be managed in a manner which avoids a breach of the environmental guidelines for those other water bodies that are hydraulically connected.

**Explanation and Reasons**

5.6.5 Policy 76 sets out how the guidelines for groundwater quality will be implemented. It specifies that the guidelines have been applied through regional rules, and will be used in resource consent processes. It then sets out the manner in which the guidelines will be applied.

**ANTICIPATED ENVIRONMENTAL RESULTS**

<b>Anticipated Environmental Result</b>	<b>Indicator</b>	<b>Data Source</b>
No degradation of existing groundwater quality in confined productive aquifers	Nitrate levels Pesticides and herbicides	Ministry of Health  Council SER monitoring
Groundwater quality in productive aquifers which meets the “Drinking Water Quality Standards for New Zealand” (MoH, 1995)	Nitrate levels Pesticides and herbicides	Ministry of Health  Council SER monitoring
Groundwater quality in productive aquifers which meets irrigation guidelines contained in the “Australian Water Quality Guidelines for Fresh and Marine Waters” (Australian and NZ Environment and Conservation Council, 1998)	Nitrate levels Pesticides and herbicides	Ministry of Health  Council SER monitoring

## 5.7 Groundwater Quantity

### OBJECTIVE

**OBJ 44** The maintenance of a sustainable groundwater resource.

*Refer section 2.2 of this Plan*

### POLICIES

#### **POL 77 ENVIRONMENTAL GUIDELINES - GROUNDWATER QUANTITY**

- (a) To manage takes of groundwater to ensure abstraction does not exceed the rate of recharge.
- (b) To manage the available groundwater resource to ensure supplies of good quality groundwater.
- (c) To manage the groundwater resource in such a manner that existing efficient groundwater takes<sup>21</sup> are not disadvantaged by new takes.
- (d) To manage takes of groundwater to ensure abstraction does not have an adverse effect on rivers, lakes, springs, or wetlands.

5.7.1 The guidelines to achieve this policy are set out in Table 11.

**Table 11. Environmental Guidelines – Groundwater Quantity  
Guidelines that apply across the entire Hawke's Bay region**

<b>Issue</b>	<b>Guideline</b>
1. Demand	The safe yield identified for an aquifer should not be exceeded.
2. Effects of takes on water quality	Takes should not contribute to the intrusion of salt water into fresh water aquifers.
3. Effects of takes on levels of rivers, lakes, springs and wetlands	Takes should not cause a reduction in the flow of rivers, levels of springs or lakes or ecologically significant wetlands.
4. Effects of new takes on existing authorised users	The take should not adversely impact on existing efficient groundwater or surface water takes unless written approval from affected persons is obtained.

#### **Explanation and Reasons**

5.7.2 Policy 77 recognises that groundwater is a critical resource in Hawke's Bay, and in many areas is the main source of water. It is therefore necessary to ensure that the resource is managed in a sustainable manner to accommodate a variety of needs. It is also important to recognise that demand for the resource is high across a variety of sectors, in particular horticulture and agriculture. It is critical that there is a degree of protection for existing resource consent holders and permitted users whose takes are efficient, from adverse effects of new or proposed takes.

<sup>21</sup> For the purposes of this Plan "efficient taking" of groundwater means abstraction by a bore which penetrates the aquifer from which water is being drawn at a depth sufficient to enable water to be drawn all year (i.e. the bore depth is below the range of seasonal fluctuations in groundwater level), with the bore being adequately maintained, of sufficient diameter and screened to minimise drawdown, with a pump capable of drawing water from the base of the bore to the land surface.

## POL 78 IMPLEMENTATION OF ENVIRONMENTAL GUIDELINES – GROUNDWATER QUANTITY

5.7.3 To implement the environmental guidelines for groundwater quantity set out in Policy 77 predominantly in the following manner:

- (a) **Regional rules** – The environmental guidelines have been incorporated in conditions, standards and terms in the rules set out in Chapter 6 of this Plan, and to guide the level of regulation, as appropriate. In particular minor takes and uses of groundwater have been permitted provided adverse effects are managed in accordance with the environmental guidelines.
- (b) **Resource consents** – The environmental guidelines will also be used in the process of making decisions on resource consents, in accordance with section 104 (1)(b) of the RMA.

### Explanation and Reasons

5.7.4 Policy 78 establishes how the environmental guidelines for groundwater quantity will be implemented. They will be used in rules, and in the resource consent process.

### ANTICIPATED ENVIRONMENTAL RESULTS

Anticipated Environmental Result	Indicator	Data Source
Avoid any significant adverse effects of water takes on the long term quantity of groundwater in the regions aquifers	Water level trends	Council SER monitoring
The availability of groundwater for use without it being taken at a rate that depletes the resource beyond a sustainable level	Water level trends	Council SER monitoring
Avoid or remedy significant adverse effects of groundwater takes on rivers, lakes, ecologically significant wetlands and springs	Flow or level data	Council surface water monitoring programme

## 5.8 Beds of Rivers and Lakes

### OBJECTIVE

**OBJ 45** The maintenance or enhancement of the natural and physical resources, and use and values, of the beds of rivers and lakes within the region as a whole.

*Refer section 2.2 of this Plan*

### POLICY

**POL 79 ENVIRONMENTAL GUIDELINES – BEDS OF RIVERS AND LAKES**

5.8.1 To manage the effects of activities affecting river beds and lake beds in accordance with the environmental guidelines set out in Table 12 below.

**Table 12. Environmental Guidelines – Beds of Rivers and Lakes**

<b>Issue</b>	<b>Guideline</b>
<b>1. Fish passage</b>	The activity should be undertaken in a manner that continues to provide for the existing passage of fish past the structure.
<b>2. Fish spawning</b>	In areas of fish spawning the activity should be undertaken in a manner that minimises adverse effects on overall fish spawning patterns.
<b>3. Bed stability</b>	No long term or ongoing acceleration of the rate of erosion or accretion of the bed of a river or lake as a result of any activity in a river bed or lake bed.
<b>4. Habitat</b>	Adverse effects on the habitat of aquatic and terrestrial flora and fauna within the bed of a river or lake should be avoided, remedied or mitigated.
<b>5. Flow regimes</b>	Adverse effects on natural flow regimes should be avoided where this is possible, or remedied or mitigated where avoidance is not possible.
<b>6. Other structures &amp; activities</b>	There should be no significant adverse effects, including by way of destabilisation, on lawful existing structures or activities within the bed of a river or lake.
<b>7. Flood &amp; debris risk</b>	There should be no reduction in the ability of the channel to convey flood flows, and no significant impedance to the passage of floating debris.
<b>8. Damage to property</b>	There should be no damage caused, and no increase in the risk of damage, to any property, including river control works, unless written approval is obtained from any affected parties.
<b>9. Temporary activities</b>	Upon completion of any temporary activity affecting the bed of a river or lake, the bed should as far as practicable be restored to no less than the state it was in prior to the activity taking place.
<b>10. Outstanding natural features</b>	Adverse effects on any outstanding natural features within river and lake beds should be avoided, remedied or mitigated.

#### Explanation and Reasons

- 5.8.2 Policy 79 sets out environmental guidelines for the management of activities affecting river beds and lake beds, including structures in, on, under or over river or lake beds, and bed disturbances. The environmental guidelines address the management of both natural and physical resources within river beds and lake beds.

#### **POL 80 IMPLEMENTATION OF ENVIRONMENTAL GUIDELINES – RIVER BEDS & LAKE BEDS**

- 5.8.3 To implement the environmental guidelines for river beds and lake beds set out in Policy 79 predominantly in the following manner:
- (a) **Regional rules** – The environmental guidelines have been incorporated in conditions, standards and terms in the rules set out in Chapter 6 of this Plan, and to guide the level of regulation, as appropriate. In particular, the use, maintenance and removal of structures have been allowed provided adverse effects are managed in accordance with the environmental guidelines.
  - (b) **Resource consents** – The environmental guidelines will also be used in the process of making decisions on resource consents, in accordance with section 104 (1)(b) of the RMA.

#### Explanation and Reasons

- 5.8.4 Policy 80 establishes that the environmental guidelines for river and lake beds will be used to guide regulation. They have been used in rules, and will be used in resource consent processes.

#### **ANTICIPATED ENVIRONMENTAL RESULTS**

<b>Anticipated Environmental Result</b>	<b>Indicator</b>	<b>Data Source</b>
Fish passage and spawning are able to continue despite the erection or use of a structure or bed disturbance	Abundance of fish in selected locations	Department of Conservation Fish and Game HBRC
Avoidance, remedy or mitigation of adverse effects on natural flow regimes	Natural flow regimes	Flow monitoring programme
No significant adverse effects on existing structures or activities within the bed of a river or lake	Destabilisation of existing structures or activities	Compliance monitoring
No reduction in ability of channels to convey flood flows	River bed cross section profiles	Asset Management Plans and flow monitoring
No damage to property by works in river beds, without owners consent	Reports of damage from river control works	Occasional event reports
Restoration of river or lake bed following temporary activity	As far as practicable the bed is restored to at least its state prior to activity occurring	Compliance monitoring

Anticipated Environmental Result	Indicator	Data Source
Aquatic habitat is maintained at a sustainable level	Temperature not changed by more than 3°C nor raised above 25°C; dissolved oxygen not exceeding guideline values; ammoniacal nitrogen levels not exceeding guideline values; soluble reactive phosphorous values not exceeding guideline values; no loss of fish species or indigenous invertebrates	Council water quality monitoring programme