

PART C

USE AND DEVELOPMENT: COASTAL MARGIN



8. Land Resources

NOTE: The provisions in this chapter apply only within the Coastal Margin between mean high water springs and the Coastal Environment Inland Boundary identified on the Planning Maps.

OBJECTIVE

Obj 8-1 The sustainable management of the land resource so as to avoid compromising future use and water quality.

Comment [1]: Appeal by:
Ngati Kahungunu Iwi Inc. (seeks new Obj)

POLICIES

Policy 8-1 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 1 below.

Comment [2]: Appeal by:
Ngati Kahungunu Iwi Inc.

Table 1: Environmental Guidelines – Land

Comment [3]: Appeal by:
Ngati Kahungunu Iwi Inc. (seeks new guideline)

Issue	Guideline
1. Appropriate land use	Land use activities should not exceed the land use capability ¹ of the subject land, as described in Schedule A to this Plan and assessed on-site.
2. Soils prone to wind erosion	Areas prone to wind erosion from land use activities should have preventative or remedial measures applied. The depth of soil (including sand) should not be reduced at a rate that exceeds the natural rate of replenishment.
3. Soils prone to other types of erosion	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.
4. Soil health	There should be no long-term degradation of the physical properties (including soil structure) or biological properties (including organic matter content) of soil.
5. Soil contamination	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.
6. Earthworks, roading, tracking	In order to meet the surface water quality guidelines set out in Chapter 9 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).

Policy 8-2 To implement the environmental guidelines for land set out in Policy 8-1 in the following manner:

Comment [4]: Appeal by:
Ngati Kahungunu Iwi Inc. (seeks new subclause)

- (a) **Non-regulatory methods** - The environmental guidelines for land will be implemented predominantly 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 s17 of the RMA have been breached (the duty of every person to avoid, remedy or mitigate any adverse effect on the environment).

¹ 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 A.

(c) **Regulatory methods** - In association with the above non-regulatory methods to regulate vegetation clearance in accordance with the rules set out in Part E of this Plan where significant adverse effects occur as a result of the vegetation clearance activities.

Explanation and Reasons

- 8.1 Obj 8-1 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 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 and others like 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 A to this Plan. However, the land use capability of specific sites requires individual on-site assessments.
- 8.2 Policy 8-1 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 A 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).
- 8.3 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 A of 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.
- 8.4 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.
- 8.5 Rules in this Plan are 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

Comment [5]: Appeal by: Ngati Kahungunu Iwi Inc. (seeks new AER)

Anticipated Environmental Result	Indicator	Data Source
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
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 complied with	<ul style="list-style-type: none"> ▪ Temperature not changed by more than 3 degrees Celsius, nor raised above 25 degrees Celsius ▪ Dissolved oxygen not complying with <u>exceeding</u> guideline values ▪ Ammoniacal nitrogen levels not complying with <u>exceeding</u> guideline values ▪ Soluble reactive phosphorous values not complying with <u>exceeding</u> guideline values ▪ No loss of fish species or indigenous invertebrates ▪ <u>Clarity in areas used for contact recreation not exceeding guideline values</u> ▪ <u>Faecal coliform concentrations not exceeding levels in Schedule C</u> ▪ <u>Suspended solid concentrations not exceeding levels in Schedule C</u> ▪ <u>Shellfish and other taonga species are safe for human consumption</u> 	Council surface water quality monitoring programme Annual <u>SER-SOE Reporting</u> <u>Cultural Health Index Monitoring</u>

9. Surface Water Quality

NOTE: The provisions in this chapter apply only within the Coastal Margin between mean high water springs and the Coastal Environment Inland Boundary identified on the Planning Maps.

OBJECTIVE

Obj 9-1 The maintenance and enhancement of the water quality of specific rivers and lakes in order that the existing species and natural character are sustained, while providing for resource availability for a variety of purposes, including groundwater recharge, maintenance or enhancement of mauri, and the protection of aquatic ecosystems.

POLICIES

Policy 9-1 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 Table 2 and Table 3².

Table 2: Environmental Guidelines – Surface Water Quality

Part I - Guidelines that Apply across the Entire Coastal Margin

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 9-2.

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

Comment [6]: Appeal by: Ngati Kahungunu Iwi Inc. (seeks new policy)

Comment [7]: Appeal by: Ngati Kahungunu Iwi Inc.

Comment [8]: Appeal by: Ngati Kahungunu Iwi Inc. (seeks new guidelines)

Comment [9]: Appeal by: Ngati Kahungunu Iwi Inc.

Table 3: Environmental Guidelines – Surface Water Quality

Part II - Guidelines that Apply to Specific Catchments

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 9-2.

Catchment Area	Faecal Coliforms (cfu/100ml)	Suspended Solids (mg/l)
Aropoanui River	200	50
Clive River and tributaries	200	10
Esk River	200	50
Ikanui Stream	200	50
Kopuawhara Stream	200	50
Mangakuri Stream	200	50
Maraetotara River	200	50

² Comparison of guidelines with existing water quality – Schedule C 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.

Catchment Area	Faecal Coliforms (cfu/100ml)	Suspended Solids (mg/l)
Mohaka River	50	10
Ngaruroro River downstream of the Expressway Bridge	150	25
Opoutama Stream	200	50
Porangahau River	200	50
Puhokio Stream	200	50
Tukituki River downstream of Tamumu bridge	100	10
Tutaekuri River downstream of the Expressway Bridge	150	25
Waingonoro Stream	200	50
Waipatiki Stream	200	50
Waipuka Stream	200	50
Wairoa River at and downstream of Frasertown	200	25

* The figures in Table 3 represent concentrations of contaminants in the water body that should not be exceeded after reasonable mixing.

Policy 9-2 To implement the environmental guidelines set out in Policy 9-1 predominantly in the process of making decisions on resource consents in accordance with 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, 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 c(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:
 - (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;
- (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

Comment [10]: Appeal by:
Ngati Kahungunu Iwi Inc.

[Note: 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.]

will be sought at the time of granting, review or renewal of 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 Part F) 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

- 9.1 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. Obj 9-1 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 area. These are set out elsewhere in this Plan.
- 9.2 Policy 9-1 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 water quality of Hawke's Bay's rivers and lakes compares quite favourably with the rest of New Zealand. 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. The presence of heavy metal concentrations within sediments can adversely impact upon the benthic community and on organisms which feed upon them. Suspended sediments containing metals and other contaminants affect water quality and can disperse over a wide area. Further research on background (ambient) heavy metal levels is required before guidelines are included in the policies.
- 9.3 The water quality guidelines set out in Policy 9-1 are likely to be refined in future. The Ministry for the Environment is 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. After this information becomes available, the HBRC is likely to build upon, and refine, its present overall direction for water quality

Comment [11]: Appeal by:
Ngati Kahungunu Iwi Inc.

Comment [12]: Appeal by:
Ngati Kahungunu Iwi Inc.

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.

9.4 The relevance of the specific water quality parameters chosen in Policy 9-1 is as follows (note that further Explanation and Reasons of the parameters used is provided in Schedule C 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.

9.5 Policy 9-2 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

Anticipated Environmental Result	Indicator	Data Source
Surface water bodies suitable for sustaining aquatic ecosystems	<ol style="list-style-type: none"> 1. Temperature not changed by more than 3 degrees Celsius, nor raised above 25 degrees Celsius 2. Dissolved oxygen <u>not exceeding complying with</u> guideline values 3. Ammoniacal nitrogen levels <u>not exceeding complying with</u> guideline values 4. Soluble reactive phosphorus values <u>not exceeding complying with</u> guideline values 5. No loss of fish species or indigenous invertebrates 6. <u>Clarity in areas used for contact recreation not exceeding guideline values</u> 7. <u>Faecal coliform concentrations not exceeding guideline values</u> 8. <u>Suspended solid concentrations not exceeding guideline values</u> 9. <u>Enhancement of degraded aquatic habitats</u> 6-10. <u>Fewer occurrences of algal growth to prevent effects on amenity, cultural values, macroinvertebrates and fish species</u> 	<p>Council water quality monitoring programme</p> <p>Annual SER-SOE monitoring and reporting</p>

10. Surface Water Quantity

NOTE: The provisions in this chapter apply only within the Coastal Margin between mean high water springs and the Coastal Environment Inland Boundary identified on the Planning Maps.

OBJECTIVE

Obj 10-1 The maintenance of the water quantity of specific rivers in order that the existing aquatic ecosystems are sustained.

POLICIES

- Policy 10-1 To sustain aquatic ecosystems by establishing a minimum flow in a river as that level which will maintain the existing ecosystem.
- Policy 10-2 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.
- Policy 10-3 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 restricted for more than 5% of the time on average during the period November – April.
- Policy 10-4 To define the Allocatable Volume as being the difference between the summer 7-day Q95 and the Minimum Flow.
- Policy 10-5 To sustain the natural character of the surface water body when determining the minimum flows and allocatable volumes for surface water bodies in Table 4.
- Policy 10-6 To allocate surface water for irrigation purposes on the basis of actual crop requirements up to a maximum equal to that required during a one in five year drought. The allocation assessment will take into account information on crop type, rainfall, potential evapotranspiration rates, and best irrigation management practices. The allocation assessment may also have regard to soil type and moisture holding capacity.
- Policy 10-7 To implement Policy 10-1, Policy 10-2 and Policy 10-3 predominantly in the process of making decisions on resource consents in accordance with the RMA, through Table 4.

Comment [13]: Appeal by: Ngati Kahungunu Iwi Inc. (seeks new Objs)

Comment [14]: Appeal by: Ngati Kahungunu Iwi Inc.

Comment [15]: Appeal by: Ngati Kahungunu Iwi Inc. (seeks new policies)

Table 4: Minimum Flow and Allocatable Volumes for Specified Rivers

River name	Minimum Flow Site Name	Minimum Flow (l/s)	Allocatable Volume (m ³ /week)	Map Reference
Esk River	Shingle Works	1400	355 018	V20:432945
Esk River	At SH2	1400 1100	355 018 -	V20:440942 V20:438939
Maraetotara River	At Te Awanga Bridge	220	30 971	W21:520661
Ngaruroro River	At Fernhill Bridge	2400	956 189	V21:330729
Nuhaka River	At Valley Road	80	41 731	X19:225329
Pouhokio Stream	At Allens Bridge	80	-	V22:498441
Tukituki River	At Red Bridge	3500	1 407 751	V22:466581
Tutaekuri River	At Puketapu	2000	928 972	V21:357812
Waimaunu Stream	At Duncans	10	15 304	X19:229300

Comment [16]: Appeal by: Ngati Kahungunu Iwi Inc.

Explanation and Reasons

- 10.1 Policy 10-1, Policy 10-2, and Policy 10-3 recognise 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. The taking of water should also not detract from aquatic or marine ecosystem integrity and function, or adversely affect the use of aquatic resources by tangata whenua in accordance with tikanga Maori.

- 10.2 Policy 10-6 sets out the technical procedure that HBRC will use for the allocation of surface water for irrigation purposes. In essence, HBRC will allocate surface water based on crop water requirements during a 1 in 5 year drought, adjusted according to local data for rainfall and evapotranspiration rates. For planning purposes it is necessary to establish a level of risk. A 20% risk that actual water needs will exceed the authorised volume in any one year (ie: a 1 in 5 year return period) recognises the need to balance crop water needs against the ability of the surface water body to maintain flow above the minimum flow and its ability to recover from a low flow situation. Policy 10-6 also notes that the water will also be allocated on the basis of best irrigation management practices rather than, for example, the amount of water required for an inefficient irrigation system.
- 10.3 Policy 10-4 and Policy 10-7 incorporate the results of investigations undertaken by the HBRC into identifying sustainable management levels for rivers. The general approach to developing minimum flows has been to seek to balance the risks of environmental effects against the needs of stream users for security of supply.
- 10.4 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.
- 10.5 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 smoothes 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

Anticipated Environmental Result	Indicator	Data Source
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-SOE monitoring
Restoration and enhancement of mauri	Physical, biological and cultural parameters	Cultural Impact assessments where available Cultural Health Index monitoring

11. Groundwater Quality

NOTE: The provisions in this chapter apply only within the Coastal Margin between mean high water springs and the Coastal Environment Inland Boundary identified on the Planning Maps.

OBJECTIVES

- Obj 11-1 No degradation of existing groundwater quality in aquifers in the Heretaunga Plains and Ruataniwha Plains aquifer systems.
- Obj 11-2 The maintenance or enhancement of groundwater quality in unconfined or semi-confined productive aquifers 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.

POLICIES

Policy 11-1 To manage the effects of activities affecting the quality of groundwater in accordance with the environmental guidelines set out in Table 5.

Comment [17]: Appeal by: Ngati Kahungunu Iwi Inc.

Table 5: Environmental Guidelines – Groundwater Quality

Issue	Guideline
CONFINED, PRODUCTIVE AQUIFERS IN THE HERETAUNGA PLAINS AQUIFER SYSTEMS	
1. No degradation	There should be no degradation of existing groundwater quality.
OTHER PRODUCTIVE AQUIFERS	
1. Human consumption	The quality of groundwater should meet the 'Drinking Water Quality Standards for New Zealand' (Ministry of Health, 2000 2005) without treatment, or after treatment where this is necessary because of the natural water quality.
2. Irrigation	The quality of groundwater should meet the guidelines for irrigation water contained in the 'Guidelines for Fresh and Marine Water Quality 2000' (ANZECC, 2000) without treatment, or after filtration where this is necessary because of the natural water quality.

Policy 11-2 To implement the environmental guidelines for groundwater quality set out in Policy 11-1 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 the RMA;
- (b) **Regional rules** - The environmental guidelines have also been incorporated in conditions, standards and terms in the rules set out in Part E of this Plan as appropriate -

and in accordance with the following approach:
- (c) **After reasonable mixing** - The environmental guidelines will apply after reasonable mixing of contaminants, and disregarding the effect of any natural perturbations that may affect the water body;
- (d) **Heretaunga and 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.

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 Part F of this Plan) 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 [any degradation of groundwater quality](#) or a breach of the environmental guidelines for those other water bodies that are hydraulically connected.

Explanation and Reasons

- 11.1 Policy 11-1 recognises the very high quality of groundwater in confined, productive aquifers in the Heretaunga Plains aquifer system (being a significant system partly within the coastal environment), and the strategic importance of this groundwater resources to the Region. It therefore establishes a regime of not allowing any degradation of the quality of this aquifer system.
- 11.2 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.
- 11.3 Policy 11-2 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

Anticipated Environmental Result	Indicator	Data Source
No degradation of existing groundwater quality in confined productive aquifers	Nitrate levels Pesticides and herbicides Faecal coliform concentrations not exceeding values in Schedule C	Ministry of Health Council SER-SOE monitoring
Groundwater quality in productive aquifers which meets the 'Drinking Water Quality Standards for New Zealand' (MoH, 2009/2005)	Nitrate levels Pesticides and herbicides Faecal coliform concentrations not exceeding values in Schedule C	Ministry of Health Council SER-SOE monitoring
Groundwater quality in productive aquifers which meets irrigation guidelines contained in the 'Guidelines for Fresh and Marine Water Quality 2000' (ANZECC, 2000)	Nitrate levels Pesticides and herbicides Faecal coliform concentrations not exceeding values in Schedule C	Ministry of Health Council SER-SOE monitoring

12. Groundwater Quantity

NOTE: The provisions in this chapter apply only within the Coastal Margin between mean high water springs and the Coastal Environment Inland Boundary identified on the Planning Maps.

OBJECTIVE

Obj 12-1 The maintenance of a sustainable groundwater resource.

POLICIES

Policy 12-1 To manage takes of groundwater to ensure abstraction does not exceed the rate of recharge.

Policy 12-2 To manage the available groundwater resource to ensure supplies of good quality groundwater.

Policy 12-3 To manage the groundwater resource in such a manner that existing efficient groundwater takes are not disadvantaged by new takes.

Policy 12-4 To manage takes of groundwater to ensure abstraction does not have an adverse effect on rivers, lakes, springs, or wetlands.

Policy 12-5 To allocate groundwater for irrigation purposes on the basis of actual crop water requirements up to a maximum equal to that required during a one in ten year drought. The allocation assessment will take into account information on crop type, rainfall, potential evapotranspiration rates, and best irrigation management practices. The allocation assessment may also have regard to soil type and moisture holding capacity.

Policy 12-6 To manage the effects of activities affecting quantity of groundwater in accordance with the environmental guidelines set out in Table 6.

Comment [18]: Appeal by:
Ngati Kahungunu Iwi Inc.

Table 6: Environmental Guidelines – Groundwater Quantity

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

Comment [19]: Appeal by:
Ngati Kahungunu Iwi Inc.

Policy 12-7 To implement the environmental guidelines for groundwater quantity set out in Policy 12-6 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 Part E of this Plan, and to provide a basis for 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 the RMA.

Explanation and Reasons

- 12.1 Policy 12-1 to Policy 12-6 recognise 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.
- 12.2 Policy 12-5 sets out the technical procedure that HBRC will use for the allocation of groundwater for irrigation purposes. For planning purposes, it is necessary to establish a level of risk. A 10% risk that actual water needs will exceed the authorised volume in any year (ie: a 1 in 10 year return period) is reasonable. This level of risk means that the groundwater allocated will meet crop requirements for a 1 in 10 year drought and will exceed crop requirements in the other 9 years on average. Policy 12-5 also notes that the water will also be allocated on the basis of best irrigation management practices rather than, for example, the amount of water required for an inefficient irrigation system.
- 12.3 Policy 12-7 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-SOE 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-SOE monitoring.
Avoid or remedy significant adverse effects of groundwater takes on rivers, lakes, springs and ecologically significant wetlands	Flow or level data	Council surface water monitoring programme

13. Beds of Rivers and Lakes

NOTE: The provisions in this chapter apply only within the Coastal Margin between mean high water springs and the Coastal Environment Inland Boundary identified on the Planning Maps.

Comment [20]: Appeal by: Ngati Kahungunu Iwi Inc. (seeks Ch renaming)

OBJECTIVE

Obj 13-1 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.

POLICIES

Policy 13-1 To manage the effects of activities affecting river beds and lake beds in accordance with the environmental guidelines set out in Table 7 below.

Comment [21]: Appeal by: Ngati Kahungunu Iwi Inc.

Table 7: Environmental Guidelines – Beds of Rivers and Lakes

Comment [22]: Appeal by: Ngati Kahungunu Iwi Inc. (seeks new guidelines)

Issue	Guideline
1. Fish passage	The activity should be undertaken in a manner that continues to provide for the existing passage of fish past the structure.
2. Fish spawning	In areas of fish spawning, the activity should be undertaken in a manner that minimises adverse effects on overall fish spawning patterns.
3. Bed stability	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.
4. Habitat	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.
5. Flow regimes	Adverse effects on natural flow regimes should be avoided where this is possible, or remedied or mitigated where avoidance is not possible.
6. Other structures and activities	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.
7. Flood risk	There should be no reduction in the channel's capacity that results in adverse flooding effects.
8. Debris risk	There should be no significant impedance to the passage of floating debris.
9. Damage to property	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.
10. Temporary activities	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.
11. Outstanding natural features	Adverse effects on any outstanding natural features within river and lake beds should be avoided, remedied or mitigated.
12. Historic heritage and significant cultural values	<u>Adverse effects on historic heritage features and areas of significant cultural heritage within river and lake beds should be avoided, remedied or mitigated.</u>

Policy 13-2 To implement the environmental guidelines for river beds and lake beds set out in Policy 13-1 predominantly in the following manner:

Comment [23]: Appeal by: Ngati Kahungunu Iwi Inc.

- (a) **Regional rules** - The environmental guidelines have been incorporated in conditions, standards and terms in the rules set out in Part E of this Plan, and to provide a basis for 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 the RMA.

Explanation and Reasons

- 13.1 Policy 13-1 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.
- 13.2 Policy 13-2 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

Anticipated Environmental Result	Indicator	Data Source
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, tangata whenua
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
Aquatic habitat is maintained at a sustainable level	<ol style="list-style-type: none"> 1. Temperature not changed by more than 3 degrees Celsius nor raised above 25 degrees Celsius 2. Dissolved oxygen not complying with <u>exceeding</u> guideline values 3. Ammoniacal nitrogen levels not complying with <u>exceeding</u> guideline values 4. Soluble reactive phosphorous values not complying with <u>exceeding</u> guideline values 5. No loss of fish species or indigenous invertebrates <u>diversity and abundance</u> 6. <u>Clarity in areas used for contact recreation not exceeding guideline values</u> 7. <u>Faecal coliform concentrations not exceeding with guideline values</u> 8. <u>Suspended solid concentrations not exceeding guideline values</u> 9. <u>Sediments and contaminants not having adverse effects on sedimentary fauna or aquatic ecosystems</u> 	Council water quality monitoring programme, <u>and tangata whenua monitoring programmes where available</u>

14. Air Quality

NOTE: The provisions in this chapter apply within the Coastal Environment – that is both the coastal marine area and the Coastal Margin.

OBJECTIVE

Obj 14-1 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.

POLICIES

Policy 14-1 To manage the effects of activities affecting air quality in accordance with the environmental guidelines set out in Table 8 below.

Table 8: Environmental Guidelines – Air Quality

Issue	Guideline
1. Odour	There should be no offensive or objectionable odour beyond the boundary of the subject property.
2. Gases, airborne liquid and other noxious or dangerous contaminants	There should be no noxious or dangerous levels of gases or airborne liquid or other airborne contaminants beyond the boundary of the subject property, in concentrations and at locations that are likely to cause adverse effects on human health, terrestrial ecosystems , aquatic ecosystems or property.
3. Smoke & water vapour	The discharge should not result in any smoke, water vapour or other contaminant that adversely affects navigation, traffic safety, or reduces horizontal visibility within 5m of ground level beyond the boundary of the subject property.
4. Dust	Any dust deposition should not raise the ambient dust deposition rate by more than 4 g/m ² per 30 days at any point beyond the boundary of the subject property.
5. Particulate matter	There should be no objectionable deposition of particulate matter on any land or structure beyond the boundary of the subject property.
6. Ambient air quality	The ambient air quality must remain within the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and Other Toxics) Regulations 2004. Where existing ambient air quality is better than these Regulations, there should be no significant degradation of ambient air quality.

Comment [24]: Appeal by: Ngati Kahungunu Iwi Inc.

Comment [25]: Appeal by: Ngati Kahungunu Iwi Inc. (seeks new guideline)

Policy 14-2 To implement the environmental guidelines for air quality set out in Policy 14-1 predominantly in the following manner:

- Regional rules** -The environmental guidelines have been incorporated primarily in conditions, standards and terms in the rules set out in Part E 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 Schedule B of this Plan, and in accordance with any relevant case law.
- Resource consents** - The environmental guidelines will also be used in the process of making decisions on resource consents, in accordance with the RMA.
- Non-regulatory methods** - Non-regulatory methods will also be used, where appropriate, to encourage compliance with the guidelines.

- (d) **Resource Management Regulations** - National Environmental Standards apply across New Zealand. These national standards may prohibit or restrict certain types of activities affecting air quality.

Explanation and Reasons

- 14.1 Prior to this Plan being prepared, the HBRC had already established an approach for air management in its former Regional Air Plan. Obj 14-1 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 14-1 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.
- 14.2 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 National Environmental Standards for ambient air quality as a 'bottom line', but also specifies that where existing quality is better than the National Environmental Standards (which is the case for most areas in Hawke's Bay, except the Napier and Hastings urban areas), the present air quality should be maintained. In other words, the existing ambient air quality should not be allowed to degrade to a level of contamination beyond that specified in the National Environmental Standards.
- 14.3 Policy 14-2 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 14-2(a) cross-references Schedule B 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 do not comply with guidelines beyond subject property boundary	Dust deposition should comply with the guidelines value of 4g/m ² per 30 days	Annual SER SOE update reporting Incident monitoring
Reduction in occurrences of objectionable deposition of particulate matter beyond subject property boundary	The accumulation of particulate matter	Annual SER SOE update reporting Incident monitoring
Ambient Air Quality	NO _x , SO _x , and CO ₂ PM ₁₀	Four yearly monitoring National Environmental Standard Ambient Air Quality compliance monitoring

15. Coastal Hazards

OBJECTIVES

Obj 15-1 Risks posed by coastal hazards to people and property are avoided or mitigated.

Obj 15-1A The avoidance of new and further development in areas identified as being currently at risk of coastal erosion or inundation (ie: those areas within Coastal Hazard Zone 1).

Obj 15-2 The avoidance of new and further inappropriate development in areas identified as being at risk of coastal erosion or inundation during the next 100 years (ie: those areas within Coastal Hazard Zone 2 or Coastal Hazard Zone 3), taking into account the risk associated with global sea level rise and the level of any protection afforded by natural coastal features and lawfully established coastal protection structures.

POLICIES

Policy 15-1 To manage coastal erosion and inundation risks in accordance with the environmental guidelines set out in Table 9.

Table 9: Environmental Guidelines – Coastal Hazards

Issue	Guideline
1. Management approach	Coastal hazards will be proactively managed in the following prioritised ways: i) avoidance of new development in areas that are, or have potential to be, subject to coastal erosion or inundation ii) maintaining and enhancing natural values and features that provide a buffer against coastal erosion and inundation iii) evaluating the feasibility of relocation and/or retreat of, existing uses and development iv) evaluating, then implementing if appropriate, activities which mitigate coastal hazards (for example, beach renourishment); and then v) evaluating, then implementing if appropriate subject to Guideline 10, permanent structures (for example, sea walls, groynes, artificial reefs) to mitigate coastal hazards.
2. Identification of coastal hazard areas	With the availability of new or updated information, areas subject to, or likely to be subject to, short and long-term coastal erosion, sea-water inundation, and cliff shoreline instability should be reviewed, identified and managed in an integrated manner. The most recent mid-range IPCC sea level rise scenario should be taken into account in these reviews.
3. Precautionary approach	a) A precautionary approach will be adopted in the assessment of: i) areas at risk from short, medium and long-term coastal erosion and inundation hazards and ii) potential adverse effects of subdivision, use and development in the coastal environment. b) Where a district plan gives effect to a more precautionary approach to the assessment and management of coastal hazard areas and controls on subdivision, use and development of land within those hazard areas than this Plan, then any regional rules for coastal hazards zones shall not apply to those areas will not be identified in this Plan for those areas.
4. Information	The most up to date information on coastal processes and coastal hazards within the region will be made available to local authorities, statutory agencies and the public to inform people of the relevant risk of coastal hazards in the area, and to encourage people to avoid developing in areas at risk of coastal hazards.
4A. Hazard Zone Review	HBRC will review the coastal hazard zones no less than every six years to coincide with sea level rise scenarios reviewed by the IPCC and any subsequent guidance produced by New Zealand's government on planning for climate change and sea level rise.

Comment [26]: Appeal by: Fenwicke, P and others on entire Chapter 15 Winstone Aggregates on entire Chapter15

Comment [27]: Appeal by: Ravensdown Fertiliser Co-op Ltd Te Awanga Society Inc Winstone Aggregates

Comment [28]: Appeal by: Napier City Council Ocean View Estate Limited Ravensdown Fertiliser Co-op Ltd Te Awanga Society Inc Winstone Aggregates

Comment [29]: Appeal by: Ngati Kahungunu Iwi Inc. (seeks new policies)

Comment [30]: Appeal by: Napier City Council Te Awanga Society Inc

Comment [31]: Appeal by: Ngati Kahungunu Iwi Inc.

Comment [32]: Appeal by: Ngati Kahungunu Iwi Inc. (seeks new guideline)

Comment [33]: Appeal by: Ocean View Estate Limited

Comment [34]: Appeal by: Ocean View Estate Limited

Comment [35]: Appeal by: Ravensdown Fertiliser Co-op Ltd

Comment [36]: Appeal by: Te Awanga Society Inc

Comment [37]: Appeal by: Ocean View Estate Limited

Comment [38]: Appeal by: Te Awanga Society Inc

Comment [39]: Appeal by: Winstone Aggregates

Comment [40]: Appeal by: Ocean View Estate Limited

Issue	Guideline
5. Foreshore protection	<p>a) Protection <u>and enhancement</u> of natural values and features will be promoted, particularly those that provide a natural buffer against coastal erosion and inundation. These features include significant landscape forms and features which have high amenity, cultural or historical values, along with dunes, gravel barriers, active off-shore sediment reservoirs, intertidal rock platforms and coastal vegetation. <u>Coastal enhancement works will be provided for as a permitted activity.</u></p> <p>b) Allowance shall be made for the future inland migration of natural features such as dunes and gravel barriers, as a result of coastal processes (including sea level rise).</p>
6. Existing subdivision, use and development	<p>a) Where existing subdivision, use and development is subject to, or is likely to be subject to, coastal erosion or <u>inundation</u>, further <u>inappropriate</u> subdivision, use and development within those existing developed areas should be avoided.</p> <p>aa) Further subdivision, use and development may be appropriate in areas where existing subdivision, use and development is subject to, or is likely to be subject to, coastal erosion or <u>inundation</u> if:</p> <ul style="list-style-type: none"> i) <u>it is for a temporary activity and/or</u> ii) <u>it protects or enhances natural features (for example, dunes, wetlands, gravel barriers, intertidal rock platforms) between existing development and the sea and</u> iii) <u>it presents less than a minor risk of exacerbating coastal hazards and</u> iv) <u>Council is satisfied that risks from coastal hazards are not increased and</u> v) <u>its location is proposed as far landward as practicable within the subject property.</u> <p>b) <u>Avoidance of further development, relocation and/or retreat</u> When assessing options for the management and control of land use activities to avoid or mitigate the effects of coastal hazards, <u>removal of existing uses and avoidance of further development</u> shall be recognised as an appropriate means of managing coastal erosion and <u>inundation</u> hazards.</p> <p>c) <u>land use activities in CHZ1, CHZ2 and CHZ3 that have less than a minor effect on exacerbating coastal hazards, and structures for public recreation facilities, will be provided for as permitted activities.</u></p>
7. New use and development	<p>New uses and development, (in particular, buildings and infrastructure) should not be located in areas that are, or have potential to be, subject to coastal erosion or inundation, unless-:</p> <ul style="list-style-type: none"> i) <u>it is for a temporary activity and/or</u> ii) <u>it protects or enhances natural buffers/features (for example, dunes, wetlands, gravel barriers, intertidal rock platforms) between existing development and the sea and</u> iii) <u>it presents less than a minor risk of exacerbating coastal erosion or inundation hazards.</u> iv) <u>Council is satisfied that risks from coastal hazards are not increased.</u>
8. New subdivision and district plan rezoning	<p>a) New and further subdivision shall be strongly discouraged within areas subject to, or likely to be subject to, coastal erosion or inundation hazards.</p> <p>b) District plans should restrict new and further subdivision of land and rezoning of land within coastal hazard zones so subdivision and zoning of land presents less than a minor risk of exacerbating coastal hazards.</p>
8A. Deposition and removal of sediment (and other earthworks)	<p>Subject to Guideline 9, deposition and removal of sediment and other earthworks should not occur in, or adjacent to, areas that are, or have potential to be, subject to coastal erosion, unless:</p> <ul style="list-style-type: none"> i) <u>it is for a temporary activity and/or</u> ii) <u>it protects or enhances natural features (for example, dunes, wetlands, gravel barriers, intertidal rock platforms) between existing development and the sea and</u> iii) <u>it presents less than a minor risk of exacerbating coastal hazards.</u>
9. Hazard mitigation works	<p>The ability for local authorities to carry out hazard mitigation works shall be provided for. Such works undertaken to mitigate coastal hazards must not adversely affect public access, natural character, dynamic coastal processes, <u>historic heritage</u>, landscape and ecological values in the coastal environment.</p>

Comment [41]: Appeal by:
Ocean View Estate Limited

Comment [42]: Appeal by:
Ngati Kahungunu Iwi Inc.

Comment [43]: Appeal by:
Ocean View Estate Limited

Comment [44]: Appeal by:
Ocean View Estate Limited

Comment [45]: Appeal by:
Ravensdown Fertiliser Co-op Ltd

Comment [46]: Appeal by:
Ngati Kahungunu Iwi Inc.
Ocean View Estate Limited
Te Awanga Society Inc.

Comment [47]: Appeal by:
Winstone Aggregates

Comment [48]: Appeal by:
Ocean View Estate Limited

Comment [49]: Appeal by:
Napier City Council

Issue	Guideline
10. Coastal protection structures	<p>a) Coastal protection structures should only be used to mitigate coastal hazards when:</p> <ul style="list-style-type: none"> i) it is the best practicable option and ii) no other non-structural alternative is effective or feasible to reduce coastal hazard risk and iii) the structure is to be located and designed so as to avoid adverse environmental effects to the greatest extent practicable, particularly effects on coastal processes, landscape values and the existing natural character of the coastline and iv) the structure is to: <ul style="list-style-type: none"> a. serve a use with a functional need to locate in the coastal marine area or b. protect areas of existing development and network utility operations from coastal erosion or inundation risks. <p>b) Maintenance and repair of existing lawfully established coastal protection structures will be provided for in this Plan as a restricted discretionary activity. In considering whether or not to grant consent, Council will have particular regard to the duration of consent to enable the undertaking of maintenance and repair works over an extended period of time.</p>
11. Network utility operations	<p>a) The continued use and protection of essential infrastructure and services in coastal hazard areas shall be provided for as a permitted activity where the infrastructure and service is located in a road reserve, where no reasonable alternative location or service delivery option exists.</p> <p>b) New and upgraded infrastructure and services should not be located in areas that are, or have potential to be, subject to coastal erosion or inundation risk unless:</p> <ul style="list-style-type: none"> i) it is for a temporary activity and/or ii) it protects or enhances natural features (for example, dunes, wetlands, gravel barriers, intertidal rock platforms) between existing development and the sea and iii) it presents less than a minor risk of exacerbating hazards and iv) Council is satisfied that risks from coastal hazards are not increased and v) no other reasonable alternative location or service delivery option exists beyond a CHZ.
12. Temporary activities	<p>a) The use of land subject to, or likely to be subject to, coastal erosion or inundation for the purposes of temporary activities (and any associated structures) shall be provided for as a permitted activity.</p> <p>b) Upon completion of any temporary activity that altered the profile of the fore dune, the fore dune should as far as practicable, be restored to no lesser state than it was in prior to the activity taking place.</p>
13. Decision Making	<p>When assessing resource consent applications the following matters shall be taken into account for activities in CHZ1, and in relation to CHZ2 and CHZ3, the following matters should be taken into account (where relevant):-</p> <ul style="list-style-type: none"> i) site elevation relative to mean sea level ii) the presence and long-term effectiveness of any lawfully established coastal protection structures iii) sea level rise predictions iv) geological characteristics of the site and surrounding environment v) the expected life of the proposed activity vi) the purpose and intended use of the proposed activity (eg: habitation, storage of goods and materials, commercial activity, essential infrastructure, or some other purpose). vii) the reasons for the proposed siting or location of the activity on the property relative to the location of coastal hazard zone(s) viii) the findings and recommendations of a site-specific coastal hazard assessment prepared by a suitably qualified person. Site-specific coastal hazard assessments shall address: <ul style="list-style-type: none"> a. Impacts of sea level rise using the Intergovernmental Panel on Climate Change's most recent assessment, and figures recommended in the most recent version of guidance manuals published by Ministry for the Environment and/or NZ Climate Change Office. b. Shoreline response to storm erosion and flooding: Scientifically appropriate models should be used, such as those based on, but not restricted to, the Bruun Rule or Komar Rule. c. Planning horizon: A 100-year planning horizon should be used. d. Long term trend: This should be derived from cadastral, aerial photography, surveys, or other reliable historic data. The reference shore adopted should be the toe of the foredune where these land forms occur, or elsewhere should be the seaward limit of vegetation or RL 11.0m datum as appropriate. e. Short term fluctuation: This should be derived from the most reliable records available at the time for particular stretches of the coast, and should err on the side of caution.

Comment [50]: Appeal by: Ngati Kahungunu Iwi Inc.

Comment [51]: Appeal by: Te Awanga Society Inc

Comment [52]: Appeal by: Ngati Kahungunu Iwi Inc. (seeks new subclause)

Comment [53]: Appeal by: Napier City Council

Comment [54]: Appeal by: Ocean View Estate Limited

Comment [55]: Appeal by: Napier City Council

Issue	Guideline
	<p>f. <u>Land stability factor: This should be based on the angle of repose (AOR) of the land geology as defined locally.</u></p> <p>g. <u>Factor of safety: The coastal hazard area assessment should include an appropriate factor of safety, either built into the above criteria and standards, or added on in the final stage in the calculation.</u></p> <p>h. <u>Any profiles (cross sections) should be carried out to accepted surveyors standards and practice. All levels must be in terms of mean sea level to Hawke's Bay datum.</u></p> <p>i. <u>For inundation hazards, sea level rise: minimum annual exceedance probability of 2%; tide level; wave set up; wave runup; factor of safety; and the potential for contaminants to mix with flood waters.</u></p>

Comment [56]: Appeal by:
Te Awanga Society Inc

Policy 15-2 To implement the environmental guidelines for coastal hazards set out in Policy 15-1 predominantly in the following manner:

- (a) **Resource consents** - The environmental guidelines will be used in the process of making decisions on resource consents, in accordance with the RMA.
- (b) **Regional rules** - The environmental guidelines have been incorporated into rules, (including conditions, standards and terms) set out in Part E of this Plan and provide a basis for the level of regulation used.
- (c) **Non-regulatory methods** - The environmental guidelines for coastal hazards may also be implemented through non-regulatory methods where appropriate, including the provision of information, advocacy on district plans and resource consent applications (including joint-hearing proceedings), environmental monitoring and reporting, financial incentives, and liaison/consultation with territorial authorities.

Explanation and Reasons

- 15.1 Natural disasters or the potential for disasters arise where these dynamic coastal processes interact with human use, property and infrastructure. Primary hazards arising from these interactions include erosion, inundation of low lying areas, and land instability including major slumping, slips and earthflows. There is a significant history of natural disasters and lesser adverse events affecting property at numerous locations along Hawke's Bay's coastline. The entire region's shoreline is prone to storm damage and the influence of cyclical erosion and accretion trends. There is also a risk of erosion due to ongoing and accelerated global sea level rise. Coastal erosion and inundation can and have damaged property and threatened people's safety and wellbeing. Limitations on the supply of sediment to coastal areas and impediments to sediment transport can affect the risks posed by coastal hazards. Also, in many instances, risks of damage to property, people's safety and the environment have increased due to the inappropriate location of assets and activities within hazard-prone areas.
- 15.2 While most natural processes which generate the coastal hazard originate in the coastal marine area, the adverse effects are usually expressed on the land above mean high water springs, where the regional council and territorial authorities have joint responsibilities to ensure such impacts are avoided or mitigated. Sustainable management of the coastal environment with respect to hazards involves consideration of the particular hazard in the wider context (both above and below mean high water springs), and over long-term timeframes. This is necessary to ensure appropriate methods are used to effectively avoid or mitigate natural coastal hazards.
- 15.3 Avoiding permanent development in areas prone to coastal erosion or inundation and taking into account the risk associated with global sea level rise is necessary to promote the sustainable management of the coastal environment's natural and physical resources. This approach enables the community to provide for efficient and effective use of resources and the safety of people and property and recognises the reasonably foreseeable needs of future generations. It also gives a clear indication to resource users that most development in these areas is inappropriate. Some limited forms of development may be appropriate if it does not interfere with coastal processes or the risks of coastal hazards are not worsened. Where existing development is within areas subject to coastal hazards, the risk needs to be minimised. This may be achieved through strategies involving planned retreat of existing development or perhaps strategies to implement physical solutions to mitigate coastal erosion or inundation processes.
- 15.4 Responses to coastal hazards should be prioritised. Guideline 1 outlines a prioritised approach (from avoidance of the hazard in the first instance; then in cases where existing development is threatened, consideration of relocating or abandoning such development; followed by maintenance and enhancement of natural features and buffers; then evaluating the use of beach nourishment solutions to mitigate the coastal hazard. The use of structural works is considered only after these other priorities have been evaluated and deemed inappropriate or not feasible. Even then, the use of structural protection works needs to be proven as the best practicable option. These priorities are outlined further in Guidelines 5-9 that give effect to policies in Chapter 3 of the NZCPS, particularly Policy 3.4.6.
- 15.5 Guidelines 2-4 are consistent with Policies 3.4.1 and 3.4.2 of the NZCPS which suggest local authorities should identify areas where coastal hazards exist and also take into account the possibility of sea level rise and its effects. A consistent regional approach should give a clear indication of which areas, on extrapolated trends, will be at risk from coastal erosion and inundation within defined time periods. Guideline 4A indicates that coastal hazard zones will be regularly reassessed to coincide with IPCC assessments and guidance from central government.

The CHZ review process may or may not reveal a need to amend the CHZs identified in the Plan. If amendments are necessary, then the RMA's plan change process will be used to introduce any such amendments.

~~15.6~~ Given the importance of network utility operations to the wellbeing of people and communities, it is appropriate that some new infrastructure may be established in coastal hazard areas where there are no other reasonable locations or no other service delivery options. The Plan provides for establishment of network utility operations in coastal hazard zones, but in order to ensure the effects are appropriately managed, a resource consent will be required where they are not located within road reserves.

~~15.6~~~~15.7~~ Guideline 3 gives effect to NZCPS Policy 3.3.1. Adopting a precautionary approach recognises that with further monitoring and research about the region's coastal processes and the effects of activities on those processes, adjustments to the policy and regulatory structure may need to be made at the next review of this Plan. Guideline 3(b) states that regional rules for coastal hazards will not be applied in areas where district plans identify coastal hazard zones and rules apply to subdivision, use and development within such zones. At the time of adopting this Plan, these circumstances were only relevant along the Westshore and Bay View coastline in Napier City.

~~15.8~~ Guideline 13 is intended to assist decision-makers and resource users by clearly outlining some of the key matters that shall be taken into account when assessing resource consent applications for non-complying activities in CHZ1. Where relevant, these matters should also be applied to assessment of other resource consent applications for activities in the CHZs. Specific details are provided on the desired type of information to be applied in preparation and review of any site-specific hazard assessments submitted in support of a resource consent application. These 'criteria' will assist in ensuring a consistently high level of quality is presented in such assessments.

ANTICIPATED ENVIRONMENTAL RESULTS

- ~~15.7~~ Assessment and identification of areas of land subject to, or likely to be subject to, coastal erosion and inundation.
- ~~15.8~~ Increased public awareness of coastal hazards and associated risks.
- ~~15.9~~ Risk to people's safety and property from coastal erosion and inundation is minimised.
- ~~15.10~~ New and further subdivision, use and development in the coastal environment is not located within identified high risk coastal hazard areas.
- ~~15.11~~ No increase in coastal erosion rates, inundation or the risk of flooding due to use of land within identified coastal hazard areas.
- ~~15.12~~ Natural buffers such as dunes, beach crests and wetlands are maintained.
- ~~15.13~~ Structural coastal protection works are only implemented where all other hazard avoidance or mitigation options are not suitable.

Anticipated Environmental Result	Indicator	Data Source
Avoidance and mitigation of the risk to property and other values from the effects of natural coastal hazards, in particular storm erosion and storm surge inundation.	Position of shoreline and upper beach crest Volumetric change in beach profile	HBRC Coastal Profile Monitoring Compliance monitoring Incident reports
Coastal protection structures are only constructed where such structures will not exacerbate the coastal hazard and where potential adverse effects on public and private land, amenity values, ecosystems and natural coastal processes can be avoided, remedied or mitigated.	Position of shoreline and upper beach crest Volumetric change in beach profile Number of incident reports / complaints received Physical and biological parameters	HBRC Coastal Profile Monitoring Compliance monitoring Incident reports