

3 REGIONALLY SIGNIFICANT ISSUES, OBJECTIVES AND POLICIES

3.1 Introduction

- 3.1.1 Under s 62 (1) of the RMA, a regional policy statement must state the “significant resource management issues of the region”. This section is written pursuant to this requirement and sets out the regionally significant issues in Hawke’s Bay. These issues are a fundamental element of this Plan and, together with the provisions of the RMA, provide the framework for the objectives and policies set out in response. These objectives and policies are specific to certain activities as set out in the Regional Policy Statement, unlike Chapter 5 where the objectives and policies apply to the use of resources within the Regional Plan framework.
- 3.1.2 The list of regionally significant issues set out in this chapter was distilled from a much larger list of potential resource management issues. This larger list, together with the approach used to derive the list of regionally significant issues, is contained in a background report to this Plan – “Background Report 1: Issues” (HBRC, 1999).
- 3.1.3 What makes an issue regionally significant? For the purposes of the Hawke's Bay Regional Resource Management Plan, a regionally significant issue is considered to be one that satisfies one or more of the following criteria:
- (a) **Widespread problem** – A problem which is relevant throughout the region, possibly crossing local authority boundaries.
 - (b) **Scarce resource** – The existence of a natural or physical resource that is scarce, rare or unique, and/or under threat. Scarce resources encompass internationally and nationally recognised resources (including resources that are nationally significant in accordance with section 6 of the RMA). They also include physical resources that have particular locational requirements or that form interlinked networks and natural resources that become scarce through unsustainable use.
 - (c) **Resource use conflict** – The presence of, or potential for, significant conflicts in resource use.
 - (d) **Cumulative impact** – The presence of, or potential for, significant cumulative impacts arising from resource use.
- 3.1.4 In essence, a regionally significant issue is one that requires a substantial, region-specific, response under the RMA. Regionally significant issues do not include matters that are regulated or protected under other legislation. Nor do they include matters relating to a national or international problem, where such matters are more appropriately dealt with at a national or international level. However, in these cases the HBRC would comply with any other legislation (if required) and any national direction given in relation to the problem.
- 3.1.5 It is important to recognise that an issue does not need to be identified as regionally significant, in order for the HBRC to address resource use activities under the RMA. This has been established in Chapter 5 where the HBRC has exercised its functions and powers under the RMA in a manner consistent with Part II of the Act. This requirement alone is adequate to address many resource use activities, such as controls on bore drilling, damming, structures in rivers and lakes, etc. What distinguishes these matters from those issues that are regionally significant is that they are not substantial problems in the region, and they do not require a response that is unique to Hawke's Bay.
- 3.1.6 Using the criteria noted above, 12 regionally significant issues have been identified. These are described in sections 3.2 to 3.13.
- 3.1.7 This chapter also sets out objectives and policies in response to the identified regionally significant issues. In order to provide a consistent approach, the policies for each regionally significant issue have been categorised under the following headings:
- (a) **Role of non-regulatory methods** - This type of policy identifies the role of non-regulatory methods in addressing the issue. These policies are linked to Chapter 4, where detailed provisions regarding non-regulatory methods are set out.

- (b) **Regulation** - This type of policy establishes how specific activities will be regulated by regional rules.
- (c) **Resource allocation** - This type of policy establishes how resources will be allocated.
- (d) **Decision-making criteria** - This type of policy sets up criteria to be used in making decisions on resource consent applications. These policies are intended to supplement the environmental guidelines established in Chapter 5.
- (e) **Problem-solving approaches** - This type of policy establishes an approach to solving a particular problem.
- (f) **Technical procedure** - This type of policy sets out a technical or scientific procedure or requirement to be used for specific elements of resource management.

3.1.8 The following table (Table 2 overleaf) provides a summary of the objectives, policies and methods set out in Chapter 3, including the relevant rules in Chapter 6.

Table 2. Summary of Objectives, Policies and Methods in Chapters 3 and 5

Objective	Policies	Rule Number	Non Regulatory Methods
Objective 3.1AA.1			
Objectives LW1 – LW3	LW1A, LW1, LW2, LW3, LW4		Refer Policy LW4
Objectives UD1 – UD6	UD1 – UD14.2		<ul style="list-style-type: none"> ▪ Education & Coordination ▪ Encouragement for Self-regulation ▪ Liaison with territorial authorities ▪ Advocacy ▪ Research and Investigation ▪ Provision of Information
Objectives 4 –10	Refer to Regional Coastal Plan		
Objective 11	1, 3	7, 8	<ul style="list-style-type: none"> ▪ Economic Instruments ▪ Education & Coordination ▪ Encouragement for Self-regulation
Objective 12	1, 2		
Objective 13	1		
Objective 14	1		
Objective 15	4		<ul style="list-style-type: none"> ▪ Economic Instruments ▪ Works and Services
Objective 16	5, 6, 8	10, 14, 15, 18, 28, 30	<ul style="list-style-type: none"> ▪ Liaison with territorial authorities
Objective 17	5, 7, 8		
Objective 18	5, 7, 8		
Objective 19	9, 10	9, 10	<ul style="list-style-type: none"> ▪ Education and Coordination
Objective 20	11, 12, 13, 14	12, 13, 14, 30, 52	<ul style="list-style-type: none"> ▪ Advocacy ▪ Promotion of composting ▪ Encouragement for self-regulation
Objective 21	15, 16, 17, 18	1, 2, 6, 10, 14, 15, 16, 30, 35 - 43, 49, 52	<ul style="list-style-type: none"> ▪ Liaison with territorial authorities ▪ Education and Coordination ▪ Encouragement for self-regulation
Objective 22	15, 17, 18, 19, 20, 21, 22	1, 2, 3, 6, 10, 14, 15, 36, 38, 39, 40, 41, 52	

Objective	Policies	Rule Number	Non Regulatory Methods
Objective 23	23, 24, 25, 26, 27, 29, 30, 31, 32, 33	1, 2, 53, 55	<ul style="list-style-type: none"> ▪ Education and Coordination ▪ Advocacy with territorial authorities
Objective 24	23, 25, 26, 27, 28, 30	2, 53, 60	<ul style="list-style-type: none"> ▪ Research and Investigation
Objective 25	34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44	54, 55, 60, 61	<ul style="list-style-type: none"> ▪ Liaison with territorial authorities ▪ Education and Coordination
Objective 26	34, 36, 38	55, 60, 61	<ul style="list-style-type: none"> ▪ Encouragement for self-regulation
Objective 27	45, 46, 47, 48, 49	6, 10, 14, 15, 39, 40, 42, 43, 52	<ul style="list-style-type: none"> ▪ Research and Investigation ▪ Economic Instruments ▪ Education and Coordination
Objective 28	50, 51, 52		<ul style="list-style-type: none"> ▪ Works and Services
Objective 29	54	74	
Objective 30	53		
Objective 31	55		<ul style="list-style-type: none"> ▪ Liaison with territorial authorities ▪ Works and Services ▪ Natural hazard priorities
Objective 32	56		<ul style="list-style-type: none"> ▪ Provision of Information
Objective 33	56		<ul style="list-style-type: none"> ▪ Liaison with territorial authorities
Objective 34	57, 58		<ul style="list-style-type: none"> ▪ Provision of Information
Objective 35	59, 60, 61, 62, 63		
Objectives 36 & 37	64, 65, 66		
Objective 38	67, 68	7, 8, 48	
Objective 39	69, 70	11, 12, 13, 17 - 30	
Objective 40	71, 72	5, 6, 7, 8, 12, 13, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 47, 49, 50, 51, 52	
Objective 41	73, 74	54, 55	
Objectives 42 & 43	75, 75	1, 2, 4, 12, 13, 30, 35, 36, 37, 42, 43	
Objective 44	77, 78	53, 55, 62	
Objective 45	79, 80	31, 32, 33, 47, 49, 52, 54, 55, 56, 57, 59, 63- 76	

3.1AA Consolidated Regional Policy Statement provisions inserted by various national directions

Introduction

3.1AA.a From time to time, national directions (e.g. in national policy statements, national environmental standard or other forms of regulation direction issued by Central Government Ministers) directs councils to insert provisions or amend plan provisions as soon as practicable **without** using a Schedule 1 RMA process. This chapter consolidates the various objectives and policies that have been directed to be in regional policy statements (refer to Chapter 5.1A for similar consolidated regional plan provisions). These objectives and policies are to be treated just like any other regional policy statement objective or policy included elsewhere in the RRMP.

3.1AA.b Consolidation is done for ease of reference and avoiding repetition throughout multiple chapters of the RRMP.

OBJECTIVES

OBJ 3.1AA.1: Housing bottom lines for Napier -Hastings Urban Environment ^[1]

1. Over the short-medium term and long term, the amount of development capacity that is sufficient to meet expected housing demand plus the appropriate competitiveness margin as set out in Table 2A, is provided for the Napier-Hastings urban environment.
2. Planning decisions relating to the Napier-Hastings urban environment must have particular regard to the housing bottom lines in Table 2A.

Table 2A: Housing bottom lines for Napier-Hastings Urban Environment, 2020-2050 ^[2, 3]

Area	Housing bottom lines (number of dwellings)		
	Short to medium term (2020 to 2030) includes an additional competitiveness margin of 20%	Long term (2031 – 2050) includes an additional competitiveness margin of 15%	2020 – 2050 TOTAL (includes competitiveness margins)
Napier-Hastings urban environment TOTAL	8,370	11,650	20,020
Hastings urban environment	5,190	7,640	12,830
Napier urban environment	3,180	4,010	7,190

^[1] Objective 3.1AA.1 was inserted on 18 December 2021 as directed by clause 3.6 of the National Policy Statement on Urban Development 2020.

^[2] The purpose of housing bottom lines is to clearly state the amount of development capacity that is sufficient to meet expected housing demand plus the appropriate competitiveness margin in the Napier-Hastings urban environment. These housing bottom lines for the 2020-2050 period are based on the assessment published in 2021 titled 'Housing Development Capacity Assessment 2021, prepared by m.e Consulting for Napier City Council, Hastings District Council and Hawke's Bay Regional Council.'

^[3] Housing bottom lines as described in Clause 3.6(3) of the National Policy Statement on Urban Development 2020 are:

- a) for the short-medium term (3-10 years), the sum of:
 - i) the amount of feasible, reasonably expected to be realised development capacity that must be enabled to meet demand, along with the competitiveness margin for the short-term; and
 - ii) the amount of feasible, reasonably expected to be realised development capacity that must be enabled to meet demand, along with the competitiveness margin for the medium-term; and
- b) for the long term (11-30 years) the amount of feasible, reasonably expected to be realised development capacity that must be enabled to meet demand, along with the competitiveness margin, for the long term.

3.1A Integrated Land Use and Freshwater Management

ISSUES

ISS LW1A E kore Parawhenua e haere ki te kore a Rakahore

Parawhenua (Water) would not flow if it were not for Rakahore (Rock)

He huahua te kai pai! He wai te kai pai!

Huahua (preserved birds) are a treasured delicacy. However water is a necessity.

Explanation: These two proverbs encapsulate the interrelationship between two significant elements – land and water. The Māori world is formed on the interconnectedness and interdependency of people to all living creatures and to the environments in which they live. The well-being of the whole is dependent on the well-being of its constituent parts.

ISS LW1 Multiple and often competing values and uses of fresh water can create conflict in the absence of clear and certain resource management policy guidance.

ISS LW2 Integration of the management of land use and water quality and quantity increases the ability to promote sustainable management of the region's natural and physical resources.

OBJECTIVES

OBJ LW 1 Integrated management of fresh water and land use and development

Fresh water and the effects of land use and development are managed in an integrated and sustainable manner which includes:¹

1. protecting the quality of outstanding freshwater bodies in Hawke's Bay;
- 1A. protecting wetlands, including their significant values;^{1A}
2. the maintenance of the overall quality of freshwater within the Hawke's Bay region and the improvement of water quality in water bodies that have been degraded to the point that they are over-allocated;
- 2B. establishing where over-allocation exists, avoiding any further over-allocation of freshwater and phasing out existing over-allocation;
3. recognising that land uses, freshwater quality and surface water flows can impact on aquifer recharge and the coastal environment;
4. safeguarding the life-supporting capacity and ecosystem processes of fresh water, including indigenous species and their associated fresh water ecosystems;
5. recognising the regional value of fresh water for human and animal drinking purposes, and for municipal water supply;
6. recognising the significant regional and national value of fresh water use for production and processing of beverages, food and fibre;
7. recognising the potential national, regional and local benefits arising from the use of water for renewable electricity generation;
8. recognising the benefits of industry good practice to land and water management, including audited self-management programmes;
- 8A. recognising the role of afforestation in sustainable land use and improving water quality;
9. ensuring efficient allocation and use of water;
12. recognising and providing for river management and flood protection activities;
13. recognising and providing for the recreational and conservation values of fresh water bodies; and

¹ There is no particular priority or ranking intended by the matters' order of appearance. For the avoidance of doubt, varying degrees of emphasis may apply, irrespective of their particular placement in the list, arising from the use of verbs in each sub-clause.

^{1A} While significant values of wetlands can include nutrient filtering, flood flow attenuation, sediment trapping and cultural, spiritual, recreational, aesthetic and educational values, their values as habitat to fish, invertebrate, plant and bird life is likely to be significant for wetlands across the region.

14. promoting the preservation of the natural character of the coastal environment, and rivers, lakes and wetlands, and their protection from inappropriate subdivision, use and development.

OBJ LW2 Integrated management of freshwater and land use development

The management of land use and freshwater use that recognises and balances the multiple and competing values and uses of those resources within catchments. Where significant conflict between competing values or uses exists or is foreseeable, the regional policy statement and regional plans provide clear priorities for the protection and use of those freshwater resources.

OBJ LW3 Tāngata whenua values in management of land use and development and freshwater

Tāngata whenua values are integrated into the management of freshwater and land use and development including:

- a) recognising the mana of hapu, whanau and iwi when establishing freshwater values; and
- b) recognising the cumulative effects of land use on the coastal environment as recognised through the Ki uta ki Tai ('mountains to the sea') philosophy; and
- c) recognising and providing for wairuatanga and the mauri of fresh water bodies in accordance with the values and principles expressed in Chapter 1.6, Schedule 1 and the objectives and policies in Chapter 3.14 of this Plan; and
- d) recognising in particular the significance of indigenous aquatic flora and fauna to tāngata whenua.

Principal reasons and explanation

Objectives LW1, LW2 and LW3 (and associated policies) assist HBRC to give effect to the 2011 National Policy Statement for Freshwater Management by setting out a broad overall framework (in parallel with other objectives in the RPS) for improving integrated management of the region's freshwater and land resources. These RPS provisions only partly implement the NPS for Freshwater Management. Regional plan policies and methods (including rules) also assist in giving effect to the NPS for Freshwater Management.

In Hawke's Bay, the issues and pressures on land and water resources vary throughout the region. As a result, the urgency for clarity around water allocation and to maintain or improve water quality also varies. For example, the food and wine production Hawke's Bay is renowned for is focussed mostly on the Heretaunga Plains, while for example plantation forestry and wool growing is typically located on hill country. These catchment differences have influenced HBRC's decision to prioritise catchments where the issues, pressures and conflicts are most pressing.

Objectives LW1, LW2 and LW3 are intended to outline the broad principles for policy-making and regional plan preparation to improve integrated decisions being made about the way the region's land and freshwater resources are used, developed or protected across the region's varying catchments and sub-catchments.

As well as different pressures in different catchments, freshwater values in Hawke's Bay also vary spatially. In addition to the national values of fresh water identified in the 2011 NPSFM's Preamble, HBRC has undertaken a process to assess freshwater values in Hawke's Bay. This included beginning with a Regional Water Symposium in 2010, followed by a process involving stakeholder representatives to develop the Hawke's Bay Regional Land and Water Management Strategy and a second Land and Water Symposium in 2011. This process helped HBRC to understand how to prioritise and strengthen policy options and management decisions for the different catchments. HBRC has also applied the River Values Assessment System (RiVAS)² to assess some of the values of rivers in the region. The results of the RiVAS assessments for Hawke's Bay reinforced the values identified at the symposiums and by the stakeholder reference group.

The predominant view of Māori in Hawke's Bay is that water is the essential ingredient of life: a priceless treasure left by ancestors for their descendants' life-sustaining use. This Plan sets out iwi environmental management principles (see Chapter 1.6), matters of significance to iwi/hapū (see Chapter 3.14) and commentary about the Māori dimension to resource management (see Schedule 1).

POLICIES

POL LW1A Problem solving approach – Wetlands and outstanding freshwater bodies

1. To work collaboratively with iwi, territorial authorities, stakeholders and the regional community:
 - a) to identify outstanding freshwater bodies at a regional level and include provisions in the Regional Policy Statement to list those waterbodies and guide the protection of the outstanding qualities of those waterbodies; and
 - b) to prepare a Regional Biodiversity Strategy and thereafter include provisions in the Regional Policy Statement and/or regional plans to (amongst other things) guide the protection of significant wetland habitat values identified by the Strategy.

² RiVAS, developed by Lincoln University, provides a standardised method that can be applied to multiple river values. It helps to identify which rivers are most highly rated for each value and has been applied in several regions throughout the country.

2. In relation to Policy LW1A.1, the identification of outstanding freshwater bodies will be completed and an associated change to the Regional Policy Statement will be publicly notified prior to public notification of any further³ catchment-based plan changes⁴ prepared in accordance with Policy LW1.

POL LW1 Problem solving approach - Catchment-based integrated management

1. Adopt an integrated management approach to fresh water and the effects of land use and development within each catchment area, that:⁵
 - b) provides for *mātauranga a hapū* and local tikanga values and uses of the catchment;
 - c) provides for the inter-connected nature of natural resources within the catchment area, including the coastal environment;
 - cA) recognises and provides for the need to protect the integrity of aquifer recharge systems;
 - cB) recognises and manages the co-existing values of wetland habitat and agricultural production;
 - d) gives effect to provisions relating to outstanding freshwater bodies arising from the implementation of Policy LW1A;
 - dA) maintains, and where necessary enhances, the water quality of those outstanding freshwater bodies identified in the catchment, and where appropriate, protects the water quantity of those outstanding freshwater bodies;
 - e) promotes collaboration and information sharing between relevant management agencies, iwi, landowners and other stakeholders;
 - f) takes a strategic long term planning outlook of at least 50 years to consider the future state, values and uses of water resources for future generations;
 - g) aims to meet the differing demand and pressures on, and values and uses of, freshwater resources to the extent possible;
 - gA) involves working collaboratively with the catchment communities and their nominated representatives;
 - h) ensures the timely use and adaptation of statutory and non-statutory measures to respond to any significant changes in resource use activities or the state of the environment;
 - iC) avoids development that limits the use or maintenance of existing electricity generating infrastructure or restricts the generation output of that infrastructure;
 - iD) provides opportunities for new renewable electricity generation infrastructure where the adverse effects on the environment can be appropriately managed;
 - iE) recognises and provides for existing use and investment;
 - j) ensures efficient allocation and use of fresh water within limits to achieve freshwater objectives; and
 - k) enables water storage infrastructure where it can provide increased water availability and security for water users while avoiding, remedying or mitigating adverse effects on freshwater values.
2. When preparing regional plans:
 - a) use the catchment-wide integrated management approach set out in POL LW1.1; and
 - b) identify the values for freshwater and wetlands and their spatial extent within each catchment and for catchments identified in Policy LW2.1:
 - i) the values must include those identified in Table 1; and
 - ii) may include additional values; and

³ Plan Change 6 for the Tukituki River catchment pre-dates this provision.

⁴ Notwithstanding Policy LW1A.2, a catchment-based regional plan change for the Mohaka River catchment may proceed in the meantime. For the avoidance of doubt, issue-specific regional plan changes (for example, urban stormwater or natural hazards and oil and gas resources) may also proceed in the meantime.

⁵ There is no particular priority or ranking intended by the matters' order of appearance. For the avoidance of doubt, varying degrees of emphasis may apply, irrespective of their particular placement in the list, arising from the use of verbs in each sub-clause.

- bA) recognise and provide for outstanding freshwater bodies and their values arising from the implementation of Policy LW1A; and
 - c) establish freshwater objectives for all freshwater bodies for the values identified in clause (b) and clause (bA) above; and
 - d) so as to achieve the freshwater objectives identified under clause (c), set:
 - i) groundwater and surface water quality limits and targets; and
 - ii) groundwater and surface water quantity allocation limits and targets and minimum flow regimes; and
 - e) set out how the groundwater and surface water quality and quantity limits and targets will be implemented through regulatory or non-regulatory methods including specifying timeframes for meeting water quality and allocation targets.
3. When setting the objectives referred to in Policy LW1.2, ensure:
- a) the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water are safeguarded; and
 - b) adverse effects on water quantity and water quality that diminish mauri are avoided, remedied or mitigated; and
 - c) the microbiological water quality in rivers and streams is safe for contact recreation where that has been identified as a value under Policy LW1.2 or Policy LW2 Table 1.⁶
4. When identifying methods and timeframes in regional plans to achieve limits and targets required by Policy LW1.2(e) have regard to:
- a) allowing reasonable transition times and pathways to meet any new water quantity limits or new water quality limits included in regional plans. A reasonable transition time is informed by the environmental and socio-economic costs and benefits that will occur during that transition time, and should include recognition of the existing investment; and
 - b) promoting and enabling the adoption and monitoring of industry-defined and Council approved good land and water management practices.

Principal reasons and explanation

Catchment-based resource management is promoted in Policy LW1 and is consistent with Objective C1 of the 2011 National Policy Statement for Freshwater Management. Policy LW1 provides a 'default' planning approach for all catchments and catchment areas across the region, irrespective of the catchment area's values being identified in Policy LW2. Many of the principles and considerations for catchment-based planning have emerged from the 2011 Hawke's Bay Land and Water Management Strategy.

National values of freshwater were listed in the 2011 NPSFM preamble and values have also been identified in the Hawke's Bay LAWMS.

Approaches to issues, values and uses of catchments will vary so Policy LW1.1, Policy LW1.2, Policy LW1.3 and Policy LW1.4 do not prescribe a one-size-fits-all approach for all catchments in Hawke's Bay. Each catchment-based process will need to be tailored for what is the most appropriate approach for that catchment (or grouping of catchments). Regional plans and changes to regional plans will be the key planning instrument for implementing catchment-based approaches to land use and freshwater resource management.

POL LW2 Problem solving approach - Prioritising values

Subject to achieving Policy LW1.3:

1. Give priority to maintaining, or enhancing where appropriate, the primary values and uses of freshwater bodies shown in Table 1 for the following catchment areas⁷ in accordance with Policy LW2.3:
 - a) Greater Heretaunga / Ahuriri Catchment Area;
 - b) Mohaka Catchment Area; and
 - c) Tukituki Catchment Area.

⁶ NOTE: Policy LW1.3(c) applies to any values and uses identified in Table 1 which refer to "amenity for contact recreation", "amenity for water-based recreation" or "recreational trout angling."

⁷ A map illustrating the indicative location of these Catchment Areas is set out in Appendix 'A'.

- 1A. Policy LW2.1 applies:
 - a) when preparing regional plans for the catchments specified in Policy LW2.1; and
 - b) when considering resource consents for activities in the catchments specified in Policy LW2.1 when no catchment-based regional plan has been prepared for the relevant catchment.
2. In relation to catchments not specified in Policy LW2.1 above, the management approach set out in Policy LW1.1, Policy LW1.2, Policy LW1.3 and Policy LW1.4 will apply.
- 2A. In relation to values not specified in Table 1, the management approach set out in Policy LW1.1, Policy LW1.2, Policy LW1.3 and Policy LW1.4 will apply.
3. When managing the fresh water bodies listed in Policy LW2.1:
 - a) recognise and provide for the primary values and uses identified in Table 1; and
 - b) have particular regard to the secondary values and uses identified in Table 1.
4. evaluate and determine the appropriate balance between any conflicting values and uses within (not between) columns in Table 1, using an integrated catchment-based process in accordance with Policy LW1.1, Policy LW1.2, Policy LW1.3 and Policy LW1.4 or when considering resource consent applications where no catchment-based regional plan has been prepared.

TABLE 1:

Catchment Area	Primary Value(s) and Uses – in no priority order	Secondary Value(s) and Uses – in no priority order
Greater Heretaunga / Ahuriri Catchment Area	<ul style="list-style-type: none"> • any regionally significant native water bird populations and their habitats • Cultural values and uses for: <ul style="list-style-type: none"> ○ mahinga kai ○ nohoanga ○ taonga raranga ○ taonga rongoa • Fish passage • Individual domestic needs and stock drinking needs⁸ • Industrial & commercial water supply • Native fish habitat in the Ngaruroro River and Tutaekuri River catchments • Recreational trout angling and trout habitat in: <ul style="list-style-type: none"> ○ the Mangaone River ○ the Mangatutu Stream ○ the Ngaruroro River and tributaries upstream of Whanawhana cableway ○ the Ngaruroro River mainstem between the Whanawhana cableway and confluence with the Maraekakaho River ○ the Tutaekuri River mainstem above the Mangaone River confluence • The high natural character values of the Ngaruroro River and its margins upstream of Whanawhana cableway, including Taruarau River • The high natural character values of the Tutaekuri River and its margins above the confluence of, and including, the Mangatutu Stream • Trout spawning habitat • Urban water supply for cities, townships and settlements and water supply for key social infrastructure facilities • freshwater use for beverages, food and fibre production and processing and other land-based primary production 	<ul style="list-style-type: none"> • Aggregate supply and extraction in Ngaruroro River downstream of the confluence with the Mangatahi Stream • Amenity for contact recreation (including swimming) in lower Ngaruroro River, Tutaekuri River and Ahuriri Estuary • any locally significant native water bird populations and their habitats • Native fish habitat, notwithstanding native fish habitat as a primary value and use in the Tutaekuri River and Ngaruroro River catchments • Recreational trout angling, where not identified as a primary value and use • Trout habitat, where not identified as a primary value and use

⁸ In line with s14(3)(b)(ii) of the RMA, it is recognised that drinking water for stock is allowed, provided that it does not have an adverse effect on the environment.

Catchment Area	Primary Value(s) and Uses – in no priority order	Secondary Value(s) and Uses – in no priority order
Mohaka Catchment Area	<ul style="list-style-type: none"> • Amenity for water-based recreation between State Highway 5 bridge and Willowflat • any regionally significant native water bird populations and their habitats • Cultural values and uses for: <ul style="list-style-type: none"> ○ mahinga kai ○ nohoanga ○ taonga raranga ○ taonga rongoa • Fish passage • Individual domestic needs and stock drinking needs⁸ • Long-fin eel habitat and passage • Recreational trout angling and trout habitat in the Mohaka River and tributaries upstream of, and including, the Te Hoe River • Scenic characteristics of Mokonui and Te Hoe gorges • The high natural character values of the Mohaka River and its margins • Trout spawning habitat 	<ul style="list-style-type: none"> • Aggregate supply and extraction in Mohaka River below railway viaduct • any locally significant native water bird populations and their habitats • Native fish habitat below Willowflat • Recreational trout angling, where not identified as a primary value and use • Trout habitat, where not identified as a primary value and use • Water use associated with maintaining or enhancing land-based primary production • Water use for renewable electricity generation in areas not restricted by the Water Conservation Order
Tukituki Catchment Area	<ul style="list-style-type: none"> • any regionally significant native water bird populations and their habitats • Cultural values and uses for: <ul style="list-style-type: none"> ○ mahinga kai ○ nohoanga ○ taonga raranga ○ taonga rongoa • Fish passage • Individual domestic needs and stock drinking needs⁸ • Industrial & commercial water supply • Native fish and trout habitat • Recreational trout angling and trout habitat in: <ul style="list-style-type: none"> ○ the Mangaonuku Stream ○ the Tukipo River ○ the Tukituki River mainstem downstream to Red Bridge ○ the Waipawa River • The high natural character values of: <ul style="list-style-type: none"> ○ the Tukituki River upstream of the end of Tukituki Road; and ○ the Waipawa River above the confluence with the Makaroro River, including the Makaroro River • Trout spawning habitat • Urban water supply for cities, townships and settlements and water supply for key social infrastructure facilities • freshwater use for beverages, food and fibre production and processing and other land-based primary production 	<ul style="list-style-type: none"> • Aggregate supply and extraction in lower Tukituki River • Amenity for contact recreation (including swimming) in lower Tukituki River. • any locally significant native water bird populations and their habitats • Recreational trout angling, where not identified as a primary value and use • Trout habitat, where not identified as a primary value and use • Water use for renewable electricity generation in the Tukituki River (mainstem) and the Waipawa River above SH50 including the Mākaroro River.

Principal reasons and explanation

Policy LW2.1 and 2.3 prioritises values of freshwater in three Catchment Areas where significant conflict exists between competing values. Clearer prioritised values in 'hotspot' catchments where significant conflicts exist was an action arising from the 2011 Hawke's Bay Land and Water Management Strategy. Policy LW2 implements OBJ LW2 in particular insofar as explicit recognition is made of the differing demands and pressures on freshwater resources, particularly within the three nominated 'hotspot' catchment areas. In relation to the remaining catchment areas across the region, Policy LW2 does not pre-define any priorities, thus enabling catchment-based regional plan changes (refer Policy LW1) for those areas to assess values and prioritise those values accordingly.

The primary and secondary values in Table 1 are identified to apply to the catchment overall, or to sub-catchments or reaches where stated. Table 1 recognises that not all values are necessarily equal across every part of the catchment area, and that some values in parts of the catchment area can be managed in a way to ensure, overall, the water body's value(s) is appropriately managed. With catchment-based regional planning processes, it is potentially possible for objectives to be established that meet the primary values and uses at the same time as meeting the secondary values.

[Refer also:

- OBJ1, OBJ2 and OBJ3 in Chapter 2.3 (Plan objectives);
- Objectives and policies in Chapter 3.4 (Scarcity of indigenous vegetation and wetlands);
- Objectives and policies in Chapter 3.8 (Groundwater quality);
- Objectives and policies in Chapter 3.9 (Groundwater quantity);
- Objectives and policies in Chapter 3.10 (Surface water resources); and
- Objectives and policies in Chapter 3.14 (Recognition of matters of significance to iwi/hapū).

POL LW3 Problem solving approach – Managing the effects of land use

1. To manage the effects of the use of, and discharges from, land so that:
 - a) the loss of nitrogen from land to groundwater and surface water, does not cause catchment area or sub-catchment area limits for nitrogen set out in regional plans to be exceeded;
 - b) the discharge of faecal matter from livestock to land, and thereafter to groundwater and surface water, does not cause faecal indicator bacteria water quality limits for human consumption and irrigation purposes set out in regional plans to be exceeded;
 - c) the loss of phosphorus from production land into groundwater or surface water does not cause limits set out in regional plans to be exceeded.
- 1A. To provide for the use of audited self management programmes to achieve good management of production land.
2. To review regional plans and prepare changes to regional plans to promote integrated management of land use and development and the region's water resources.

Principal reasons and explanation

Policy LW3 makes it clear that HBRC will manage the loss of contaminants (nitrogen, phosphorus and faecal indicator bacteria) from land use activities to groundwater and surface water in order to ensure that groundwater and surface water objectives and limits identified in specified catchment areas are achieved. Restrictions under section 15 of the RMA may also apply to land use activities. Phosphorus and nitrogen leaching and run-off will be managed by both regulatory and non-regulatory methods. This approach will be complemented by industries' implementation of good agricultural practices.

HBRC had prepared a NPSFM Implementation Programme that outlined key regional plan and policy statement change processes required to fully implement the earlier 2011, 2014 and 2017 versions of NPSFMs by 2030. However, that programme has been reconfigured due to the 2020 NPSFM that came into effect on 3 September 2020 and several of the amendments made to the RMA in 2020.

POL LW4 Role of non-regulatory methods

To use non-regulatory methods, as set out in Chapter 4, in support of regulatory methods, for managing fresh water and land use and development in an integrated manner, including:

- a) **research, investigation and provision of information and services** – HBRC has in place a programme of research, monitoring and assessment of the state and trends of Hawke's Bay's natural resources. That programme will continue to be enhanced to assist HBRC implement the NPSFM and Hawke's Bay Land and Water Management Strategy;
- b) **advocacy, liaison and collaboration** – HBRC will promote a collaborative approach to the integrated management of land use and development and the region's freshwater resources;
- c) **land and water strategies** – the 2011 Hawke's Bay Land and Water Management Strategy contains a variety of policies and actions. A range of agencies and partnerships will be necessary to implement the actions and policies in the Strategy;
- e) **industry good practice** – HBRC will strongly encourage industry and/or catchment-based good practices for production land uses along with audited self management programmes as a key mechanism for achieving freshwater objectives at a catchment or sub-catchment level.

Principal reasons and explanation

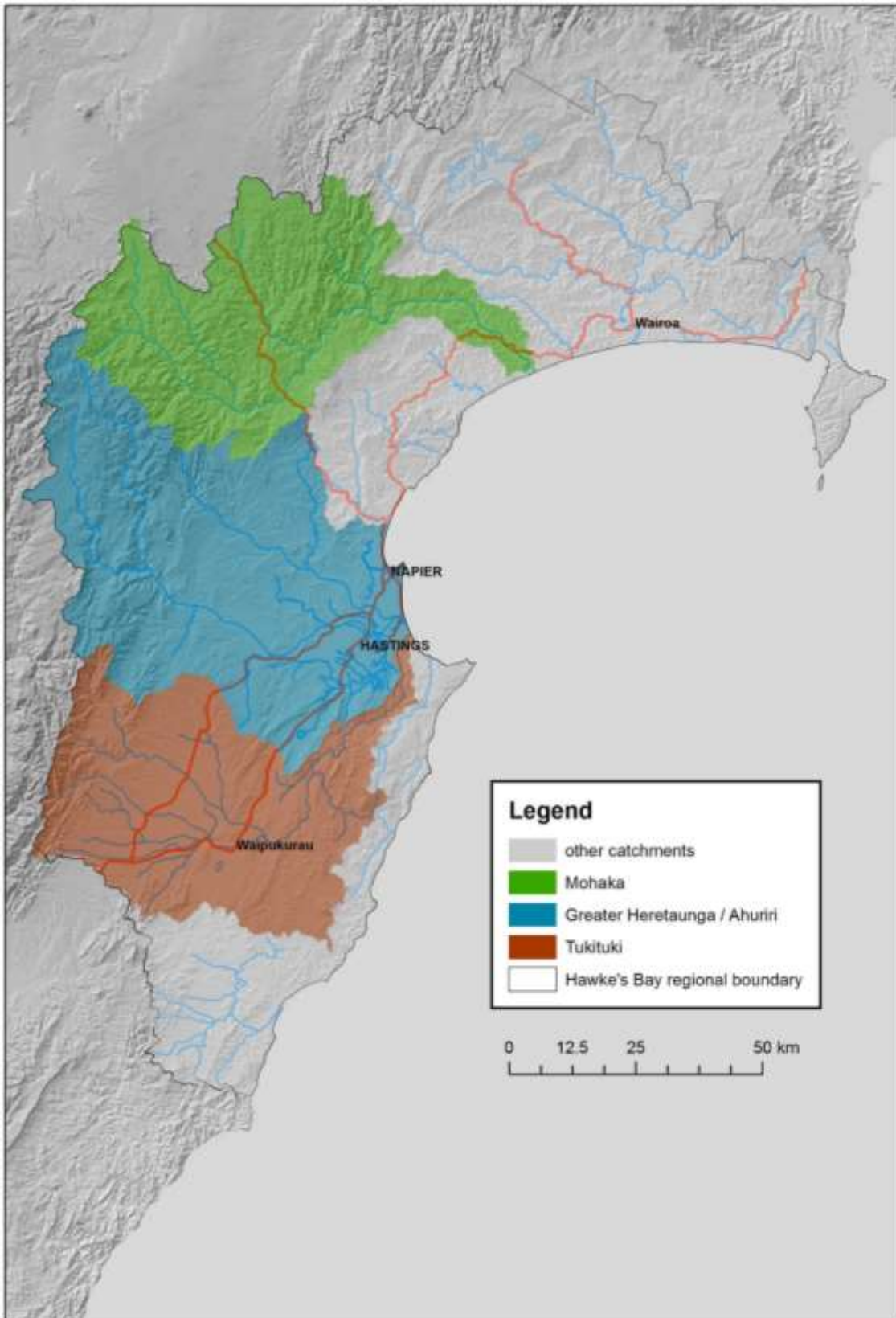
Policy LW4 sets out the role of HBRC's non-regulatory methods in supporting regional rules and other regulatory methods to assist management of freshwater and land use and development in an integrated manner. This policy (and Policy LW1) recognises the need for a collaborative approach as an important means of minimising conflict and managing often competing pressures for the use and values of fresh water.

Anticipated Environmental Results

[Refer also anticipated environmental results in Chapters 3.3; 3.4; 3.7; 3.8; 3.9; 3.10; and 3.11]

Anticipated Environmental Results	Indicator(s)	Data Source(s)
1. Land and water management is tailored and prioritised to address the key values and pressures of each catchment	Freshwater objectives, targets and limits for catchments and/or groups of catchments are identified in regional plans for catchments Physical and biological parameters Social, cultural and economic indices	Regional plans and changes to regional plans HBRC's NPSFM Implementation Programme SOE monitoring and reporting Local authority records User surveys Catchment-specific monitoring programmes
2. Regional economic prosperity is enhanced	Regional GDP trends and unemployment trends for primary sector and associated manufacturing and processing	Statistics NZ Economic activity surveys Employment records by sector
3. Water is efficiently allocated	Level of allocation Catchment contaminant load modelling and monitoring Water use restriction timings and durations	SOE monitoring HBRC Consents records Compliance records Catchment-specific monitoring reports Water-supply management plans
4. Quality of fresh water in region overall is maintained or improved.	Catchment targets are met and limits in regional plans are not exceeded Catchment contaminant load modelling and monitoring	SOE monitoring Compliance records Catchment-specific monitoring reports
5. Water storage is developed to provide increased water availability and security for water users	Consents issued for water storage projects Improved security of supply of water for users in times and places of water scarcity	HBRC consent records Building consent authority records
6. Tikanga Maori and tāngata whenua values are taken into account when managing freshwater	Cultural indices developed through cultural monitoring frameworks	Cultural health monitoring records

Appendix A – Indicative locations of ‘Catchment Areas’ in POL LW2



3.1B Managing the Built Environment

Urban Development and Strategic Integration of Infrastructure

ISSUES

- ISS UD1 The adverse effects of sporadic and unplanned urban development (particularly in the Heretaunga Plains sub-region), on:**
- a) the natural environment (land and water);**
 - b) the efficient provision, operation, maintenance and upgrading of physical infrastructure or services (particularly strategic infrastructure); and**
 - c) the economic, cultural and social wellbeing of the Region's people and communities.**

Explanation

Unplanned urban form and ad hoc management of urban growth can have adverse effects on people and communities, and on the natural environment (land and water). Effective management of growth in the region is necessary to ensure development occurs in a planned, sustainable manner and in a way that also does not compromise the planned provision, operation, maintenance and upgrading of strategic and regionally significant infrastructure. This aligns with the statutory functions of the Regional Council in giving effect to the Act as contained in section 30 of the Resource Management Act 1991 – in particular:

- “(1)(a) the establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the natural and physical resources of the region;*
(b) the preparation of objectives and policies in relation to any actual or potential effects of the use, development or protection of land which are of regional significance; ...
(gb) the strategic integration of infrastructure with land use through objectives, policies, and methods;”

Managing urban growth and development is a regionally significant issue because what occurs in one area will invariably have an effect on other places. This is particularly so for the urban centres of Napier and Hastings, and surrounding coastal and rural settlements in and around the Heretaunga Plains. As at 2010, 8,000 households are projected to be required between 2015 and 2045 in the Heretaunga Plains area. Growth in the other parts of the Region is not projected to be significant over that period.

Managed growth intervention recognises the actual or potential effects urban growth can have on people and communities, and on the natural environment. Unplanned urban development can have adverse effects on sensitive natural environments (streams, wetlands, lakes and rivers), and result in high travel costs, reverse sensitivity and social isolation. Planning urban development in advance will ensure development is directed away from potential and known hazard areas.

Managed growth intervention also recognises the important role that efficient infrastructure (e.g. road, rail, ports, airports, electricity networks, telecommunications, drainage, dams, water and wastewater networks) plays in supporting settlement growth and prosperity. The protection of the region's strategic infrastructure is essential for growth. A lack of integration between land use and infrastructure can result in poor infrastructure investment decisions, public funding pressures, reverse sensitivity effects and inefficient land use patterns.

In the past, Hastings and Napier have planned for growth independently. However, in recognising the interrelationship of these key urban centres, and the pressures on shared resources and infrastructure, Hawke's Bay Regional Council, Hastings District Council and Napier City Council embarked on a collaborative approach to urban growth and development out to 2045, culminating in the development of the Heretaunga Plains Urban Development Strategy (HPUDS2010).^{1a}

The purpose of the Heretaunga Plains Urban Development Strategy is to assist, in a collaborative manner, the local authorities to plan and manage growth on the Heretaunga Plains and some additional coastal communities beyond the immediate Heretaunga Plains. The Strategy takes a long-term approach to addressing the key issues facing the Heretaunga Plains in a more integrated way, and focuses on a preferred settlement pattern that will lead to more compact development through gradual restriction on urban boundaries to allow for proper planning and design work.

The Regional Policy Statement seeks to give effect to the general tenets of HPUDS2010 at the regional level, where the outcomes of the HPUDS2010 process align with the statutory functions of the Regional Council.

Much of the urban growth policy in the Regional Policy Statement is therefore directed at a sub-regional level to the Heretaunga Plains and surrounding coastal and rural settlements. The Wairoa and Central Hawke's Bay Districts, and Hastings District hinterland, have different pressures, which warrant less regional policy direction in terms of urban growth management at this time. This may change over time, requiring further regional policy intervention at a later date.

For the purposes of the Regional Policy Statement, the Heretaunga Plains sub-region is geographically defined in Schedule XIV, matching the geographical extent adopted for HPUDS2010 and the Heretaunga Plains Transportation Strategy.

^{1a} Heretaunga Plains Urban Development Strategy, Adopted August 2010

ISS UD2 The adverse effects from urban development encroaching on versatile land (particularly in the Heretaunga Plains sub-region where the land supports regionally and nationally significant intensive economic activity), and ultimately the adverse effects of this on the economic wellbeing of the Region's people and communities both now and for future generations.

Explanation

The Heretaunga Plains sub-region contains areas with a high proportion of very high value versatile land. There are competing demands for this valuable finite resource. The diversity and intensity of horticultural and viticultural production on the Heretaunga Plains, for instance, creates a high demand for land which is in short supply, whilst the same land is highly desirable for urban and rural lifestyle development.

The versatile land of the region, particularly in the Heretaunga Plains sub-region is a regionally, if not nationally, significant resource for primary production and ultimately underpins the economy of the Region. Therefore, pressure from urban development encroaching on this resource is a regionally significant issue.

Pressure for urban expansion on to agricultural land continues unless controlled, because the financial incentives are strong. The increased market value of land developed for urban use is considerable and beyond agricultural returns to sustain. Once developed, the economic value of urban and industrial infrastructure typically means this land is permanently removed from primary production. In short, within agriculture, land use conflicts occur between short-term economic incentives and the future sustainability of the soils. Subdivision for urban development removes land from agricultural production but also impacts on the productivity of other land, in particular through reverse sensitivity.

The concentration of highly versatile soils in conjunction with significant concentration of the Region's population on the Heretaunga Plains, reinforces the focus of urban growth policy in the Regional Policy Statement on the Heretaunga Plains sub-region at this time.

OBJECTIVES

URBAN FORM (REGION)

OBJ UD1 Establish compact, and strongly connected urban form throughout the Region, that:

- a) achieves quality built environments that:
 - i. provide for a range of housing choices and affordability,
 - ii. have a sense of character and identity,
 - iii. retain heritage values and values important to tangata whenua,
 - iv. are healthy, environmentally sustainable, functionally efficient, and economically and socially resilient, and
 - v. demonstrates consideration of the principles of urban design;
- b) avoids, remedies or mitigates reverse sensitivity effects in accordance with objectives and policies in Chapter 3.5 of this plan;
- c) avoids, remedies or mitigates reverse sensitivity effects on existing strategic and other physical infrastructure in accordance with objectives and policies in Chapter 3.5 and 3.13 of this plan;
- d) avoids unnecessary encroachment of urban activities on the versatile land of the Heretaunga Plains; and
- e) avoids or mitigates increasing the frequency or severity of risk to people and property from natural hazards.

Principal reasons and explanation

A sprawling uncontrolled pattern of development does not promote sustainable forms of development and promotes less efficient use of existing infrastructure. High levels of amenity, quality living environments, and retention of significant features and values are harder to achieve when development is not well designed and connected. Sprawling development also leads to unsustainable encroachment onto versatile land which underpins much of the Region's economy. Transitioning to a more compact, well-designed and strongly connected urban form better supports the economic, social and cultural wellbeing of the Region's people and communities.

[Refer also:

- OBJ7 and OBJ8 (Chapter 3.2 – Coastal Resources) re: coastal values important to tangata whenua, and development in coastal hazard areas
- OBJ16 and OBJ18 (Chapter 3.5 – Conflicting Land Uses) re: nuisance effects from location of conflicting land uses
- OBJ31 (Chapter 3.12 – Natural Hazards) re: natural hazards
- OBJ32 and OBJ33 (Chapter 3.13 – Maintenance and Enhancement of Physical Infrastructure) re: recognising and providing for operation, maintenance and development of physical infrastructure, and specific locational requirements
- OBJ36 and OBJ37 (Chapter 3.14 – Matters of Significance to Iwi/Hapu) re: values important to tangata whenua]

INTENSIFICATION OF RESIDENTIAL AREAS (HERETAUNGA PLAINS SUB-REGION)

OBJ UD2 Provide for residential growth in the Heretaunga Plains sub-region through higher density development in suitable locations.

Principal reasons and explanation

New development accommodates growth and provides the opportunity to enhance the quality of the environment. In the right location, more intensive forms of development will, amongst other things, promote efficient use of existing infrastructure or any planned infrastructure already committed to by Local Authorities (e.g. by funding) but not yet constructed, minimise energy use (as development spreads, the demand for transport and energy use increases), and reduce the need to encroach onto the versatile land of the Heretaunga Plains.

PROVISION FOR BUSINESS LAND (HERETAUNGA PLAINS SUB-REGION)

OBJ UD3 Identify and provide for the land requirements for the growth of business activities in the Heretaunga Plains sub-region in a manner that supports the settlement pattern promoted in OBJ UD1.

Principal reasons and explanation

The provision of adequate land for future business activities is important for long term economic growth and the provision of both employment and services to the sub-region's existing and future communities. HPUDS2010 identified that there is already an adequate supply of commercial land within the Heretaunga Plains sub-region to accommodate projected demand and growth. In relation to industrial land, HPUDS2010 identified a limited number of areas appropriate for additional industrial land expansion and growth. These additional areas (identified in Policy UD4.5) are expected to accommodate projected growth and demand for industrially-zoned land out to 2045, and any additional growth in the event that the projections change from what was anticipated in HPUDS2010.

PLANNED PROVISION FOR URBAN DEVELOPMENT (HERETAUNGA PLAINS SUB-REGION)

OBJ UD4 Enable urban development in the Heretaunga Plains sub-region, in an integrated, planned and staged manner which:

- a) allows for the adequate and timely supply of land and associated infrastructure; and
- b) avoids inappropriate lifestyle development, ad hoc residential development and other inappropriate urban activities in rural parts of the Heretaunga Plains sub-region.

Principal reasons and explanation

Successful long term growth management is dependent on integrating long term land use, the infrastructure necessary to support this growth and the ability to fund and supply the infrastructure in a timely and equitable manner. In order to protect the productivity of rural land in the Heretaunga Plains, all inappropriate urban development should be avoided.

INTEGRATION OF LAND USE WITH SIGNIFICANT INFRASTRUCTURE (REGION)

OBJ UD5 Ensure through long-term planning for land use change throughout the Region, that the rate and location of development is integrated with the provision of strategic and other infrastructure, the provision of services, and associated funding mechanisms.

Principal reasons and explanation

Strategic infrastructure in the wider region is essential to the well-being and health and safety of people and communities. Consideration needs to be given to sequencing and costs of infrastructure development in decision making. These can have significant effects on efficiency and the economic well-being of communities. Recognition of the importance of strategic infrastructure will lead to greater weight being given to its requirements and the desirability to reduce incompatibility and conflicts.

[Refer also OBJ32 and OBJ33 (Chapter 3.13 – Maintenance and Enhancement of Physical Infrastructure) re: recognising and providing for operation, maintenance and development of physical infrastructure, and specific locational requirements]

INTEGRATION OF TRANSPORT INFRASTRUCTURE WITH DEVELOPMENT (REGION)

OBJ UD6 Ensure that the planning and provision of transport infrastructure is integrated with development and settlement patterns and facilitates the movement of goods and people and provision of services throughout the Region, while:

- a) limiting network congestion;
- b) reducing dependency on private motor vehicles;
- c) reducing emission of contaminants to air and energy use; and
- d) promoting the use of active transport modes.

Principal reasons and explanation

Development that is not well integrated with transport infrastructure can result in increased car dependency, higher energy use, greater traffic volumes, and inefficient freight movement. Land use patterns that are integrated with transport infrastructure minimise energy

use through network optimisation, and enables greater recognition of the importance of strategic transport networks in supporting the economic and social wellbeing, and health and safety, of people and communities.

[Refer also OBJ32 and OBJ33 (Chapter 3.13 – Maintenance and Enhancement of Physical Infrastructure) re: recognising and providing for operation, maintenance and development of physical infrastructure, and specific locational requirements]

POLICIES

PROVIDING FOR DEVELOPMENT

PROVISION FOR URBAN ACTIVITIES (HERETAUNGA PLAINS SUB-REGION)

POL UD1 In providing for urban activities in the Heretaunga Plains sub-region, territorial authorities must place priority on:

- a) the retention of the versatile land of the Heretaunga Plains for existing and foreseeable future primary production, and
- b) ensuring efficient utilisation of existing infrastructure, or
- c) ensuring efficient utilisation of planned infrastructure already committed to by a local authority, but not yet constructed.

Principal reasons and explanation

Efficient utilisation of existing infrastructure investment (or planned infrastructure already committed to (e.g. by funding) by not yet constructed) and the retention of the versatile land of the Heretaunga Plains for existing and foreseeable future primary production must underpin all decisions surrounding provision for urban activity in the Heretaunga Plains sub-region in order to achieve the desired settlement pattern outlined in HPUDS2010. For clarification, the supply of land for residential and industrial activities where they support effective and efficient use and management of versatile land would not conflict with Policy UD1, and would assist in achieving Policy UD1(a).

PROVISION FOR BUSINESS ACTIVITIES (HERETAUNGA PLAINS SUB-REGION)

POL UD2 In the Heretaunga Plains sub-region, district plans shall provide for business activities to 2045, in a manner which:

- a) Reinforces the role of Napier and Hastings cities as the commercial and business core of the Heretaunga Plains, whilst supporting adequate capacity in defined rural towns and settlements for a range of day-to-day services and activities;
- b) Promotes the utilisation, redevelopment and intensification of existing commercial land;
- c) Promotes the utilisation, redevelopment and intensification of existing industrial land, and provides sufficient additional greenfields industrial land to ensure demand for new land can be met by supply;
- d) Promotes the utilisation of existing infrastructure availability, capacity and quality as far as reasonably practicable;
- e) Avoids unnecessary encroachment onto the versatile land of the Heretaunga Plains;
- f) Avoids, remedies or mitigates reverse sensitivity effects in accordance with Objectives and Policies in Chapters 3.5 and 3.13 of the plan;
- g) Ensures close proximity to, major transport hubs and multi-modal transport networks.
- h) promotes close proximity to labour supply.
- i) Avoids or mitigates the following locational constraints:
 - i. projected sea level rise as a result of climatic changes
 - ii. active coastal erosion and inundation
 - iii. stormwater infrastructure that is unable to mitigate identified flooding risk
 - iv. flood control and drainage schemes that are at or over capacity
 - v. active earthquake faults
 - vi. high liquefaction potential
 - vii. nearby sensitive waterbodies that are susceptible to potential contamination from runoff, stormwater discharges, or wastewater treatment and disposal.
 - viii. no current wastewater reticulation and the land is poor draining
 - ix. water short areas affecting the provision of adequate water supply.

Principal reasons and explanation

In achieving a more compact urban settlement pattern, the emphasis should be on utilising and redeveloping existing commercial and industrial land to accommodate business growth, in the first instance. This will ensure efficient utilisation of existing and planned infrastructure, minimisation of reverse sensitivity issues, and efficiencies in utilising the presence of existing labour supply. Across the Heretaunga Plains sub-region there is potential to provide for most anticipated new commercial activity within existing zoned commercial land through redevelopment and uptake of existing commercially-zoned land to 2045. However, there is some expectation that additional industrial land may be required at some point during that period, depending on uptake.

Any provision for new business land should be focussed around existing infrastructure to minimise public costs and in particular to achieve integration with transport networks. Any new infrastructure should be planned in a manner which recognises the importance of the links to and from the Heretaunga Plains sub region and the role these links serve for the efficient distribution of goods throughout the region. Phasing or sequencing of business land for development is not necessary provided that a ready supply is available, as it is expected that the market will dictate its rate of development.

POL UD3 RURAL RESIDENTIAL AND LIFESTYLE DEVELOPMENT (HERETAUNGA PLAINS SUB-REGION)
In the Heretaunga Plains sub-region, district plans shall include policies and methods discouraging or avoiding ad hoc residential development and further rezoning for rural residential purposes or lifestyle development outside existing rural residential zones.

Principal reasons and explanation

Similar to urban development, rural residential or lifestyle development can also act to remove valuable land from agricultural production and can also impact on the productivity of other land (i.e. rural or industrial), in particular through reverse sensitivity. These forms of development should not be confused with residential development (eg: farm houses) that is ancillary to primary production activities or to boundary adjustments that may effectively create a lifestyle site by reducing the land area surrounding a dwelling to create a larger more productive balance title. Provision for rural residential and lifestyle development should be carefully managed to minimise fragmentation of the versatile land of the Heretaunga Plains. There is currently an excess supply of rural residential zoned areas within the Heretaunga Plains sub-region, considered sufficient to cater for projected demand for rural residential lots in the sub-region through to 2045, and further rezoning for this purpose is considered unnecessary for the foreseeable future.

ACHIEVING CONTAINMENT OF URBAN ACTIVITIES

POL UD4.1 ESTABLISHING URBAN LIMITS (HERETAUNGA PLAINS SUB-REGION)
Within the Heretaunga Plains sub-region, district plans shall identify urban limits for those urban areas and settlements within which urban activities can occur, sufficient to cater for anticipated population and household growth to 2045.

POL UD4.2 NEW RESIDENTIAL GREENFIELD GROWTH AREA CRITERIA (HERETAUNGA PLAINS SUB-REGION)
In determining future Residential Greenfield Growth Areas, not already identified within Policy UD4.3, for inclusion within urban limits in the Heretaunga Plains sub-region, the following general criteria shall apply:

- a) Must form an extension contiguous with existing urban areas and settlements.
- b) Land is identified as having low versatility, and/or productive capacity has been compromised by:
 - i. Size and shape of land parcels that mitigates against productive use;
 - ii. Surrounding land uses and reverse sensitivity;
 - iii. Lack of water and/or poor drainage.
- c) Clear natural boundaries exist, or logical greenbelts could be created to establish a defined urban edge.
- d) Supports compact urban form.
- e) Can be serviced at reasonable cost.
- f) Can be integrated with existing development.
- g) Can be integrated with the provision of strategic and other infrastructure (particularly strategic transport networks in order to limit network congestion, reduce dependency on private motor vehicles and promote the use of active transport modes).
- h) An appropriate separation distance from electricity transmission infrastructure should be maintained in order to ensure the continued safe and efficient operation and development of the electricity transmission network.
- i) Promotes, and does not compromise, social infrastructure including community, education, sport and recreation facilities and public open space.
- j) Avoids or mitigates the following locational constraints:
 - i. projected sea level rise as a result of climatic changes
 - ii. active coastal erosion and inundation
 - iii. stormwater infrastructure that is unable to mitigate identified flooding risk
 - iv. flood control and drainage schemes that are at or over capacity
 - v. active earthquake faults
 - vi. high liquefaction potential
 - vii. nearby sensitive waterbodies that are susceptible to potential contamination from on-site wastewater systems or stormwater discharges
 - viii. no current wastewater reticulation and the land is poor draining

- ix. identified water short areas with the potential to affect the provision of an adequate water supply.

APPROPRIATE RESIDENTIAL GREENFIELD GROWTH AREAS (HERETAUNGA PLAINS SUB-REGION)

POL UD4.3 Within the Heretaunga Plains sub-region, areas where future residential greenfield growth for the 2015-2045 period has been identified as appropriate and providing choice in location, subject to further assessment referred to in POL UD10.1, POL UD10.3, POL UD10.4 and POL UD12, are:

- a) Bay View
- b) Park Island / Parklands
- c) Taradale Hills
- d) Te Awa / The Loop
- e) Arataki Extension
- f) Haumoana (south of East Road) / Te Awanga
- g) Havelock North Hills (lower extension)
- h) Howard Street
- i) Irongate Road / York
- j) Kaiapo Road
- k) Lyndhurst
- l) Lyndhurst Road extension
- m) Maraekakaho rural settlement
- n) Middle Road / Iona / Hills
- o) Murdoch Road / Copeland
- p) Omahu / Bridge Pa (marae-based)
- q) Waimarama

All indicative areas are shown in Schedule XIVa.^{1b}

INAPPROPRIATE RESIDENTIAL GREENFIELD GROWTH AREAS (HERETAUNGA PLAINS SUB-REGION)

POL UD4.4 Within the Heretaunga Plains sub-region, areas where future^{1c} residential greenfield growth has been determined as inappropriate, beyond existing settlements are:

- a) Waipatiki Beach
- b) Tangoio
- c) Whirinaki
- d) Puketapu
- e) Jervoistown and Meeanee
- f) Clive
- g) East Clive
- h) Clifton
- i) Ocean Beach – apart from the potential for appropriate growth of the existing Waipuka bach settlement^{1d} on Maori land inland of areas at risk of coastal hazards
- j) Natural detention areas (50 year flood ponding areas).
- k) Haumoana (north of East Road)

^{1b} All spatial areas are indicative only until formalised via a plan change; and reference should be made to the Heretaunga Plains Urban Development Strategy for more information on these future greenfield growth areas.

^{1c} 'Future' greenfield growth refers to areas not already zoned for some form of residential development in existing district plans.

^{1d} This area is defined as being Areas A to D in the Ocean Beach Structure Plan (2007).

- POL UD4.5 APPROPRIATE INDUSTRIAL GREENFIELD GROWTH AREAS (HERETAUNGA PLAINS SUB-REGION)** Within the Heretaunga Plains sub-region, areas where future industrial greenfield growth for the 2015-2045 period have been identified as appropriate, subject to further assessment referred to in POL UD10.1, POL UD10.3, POL UD10.4 and POL UD12, are :
- a) Irongate industrial area
 - b) Omahu industrial area
 - c) Whakatu industrial area
 - d) Tomoana industrial area
 - e) Awatoto industrial area

The indicative locations of the above areas are shown in Schedule XIVb.^{1e}

Principal reasons and explanation

Demographic changes to the population within the Heretaunga Plains sub-region will ultimately influence demand for land. Setting urban limits allows long term land use and infrastructure to be adequately managed and planned for, and provides certainty around where future development is planned to occur. Urban limits will ensure development consolidates within and around existing settlements which is critical to transitioning to a more compact urban settlement pattern in the Heretaunga Plains sub-region. In 2010, projected demographic changes for the sub-region over the 35 year period to 2045 (sourced from Statistics New Zealand) anticipate moderate population growth, an older population, and declining household occupancy rates leading to an increase in household numbers of 8,014 to 58,925 (a 15.7% increase).

In transitioning to a more compact settlement pattern, the 2010 Heretaunga Plains Urban Development Strategy adopted a gradual move towards a greater proportion of new households being supplied through higher density development over time (refer Table 1, POL UD7 explanation). However, these changes were still assessed as resulting in 'on the ground' requirements for urban development beyond current supply for this purpose. Of the total 8,014 new households projected over the period, some 3,358 are proposed to be supplied through greenfield development. Urban limits therefore need to encompass sufficient additional land area to accommodate this level of greenfield development.

The greenfield growth areas referred to in Policy UD4.3 are areas which provide choice in location around existing settlements in the Napier City and Hastings District, but not already zoned for some form of residential development in plans existing at 2010. These areas are not subject to Policy UD4.2 and are appropriate for inclusion within the urban limits subject to further assessment pursuant to Policies UD10.1, UD10.3, UD10.4 and UD12. Development in these areas ahead of rezoning has the potential to reduce the efficiency of infrastructure provision, limit the options available in developing the area, and impact on the uptake of lots in another area. Therefore inappropriate ad hoc residential development should be avoided in accordance with Policy UD10.2 until rezoning of the areas identified in Policy UD4.3 has taken place.

Policy UD4.2 allows for the creation of new greenfield growth areas in the Heretaunga Plains sub-region. Any new greenfield growth areas within the urban limits must promote the overall transition to the compact settlement philosophy adopted in the Regional Policy Statement; be economically, socially and environmentally sustainable; and provide for locational choice.

All new greenfield areas proposed under Policy UD4.2 will be subject to the HPUDS review process, whereby greenfield growth areas, other than those identified in Policy UD4.3, will be decided in collaboration with Hawke's Bay Regional Council, Napier City Council and Hastings District Council as per the HPUDS 2010 review process, prior to re-zoning taking place. This process applies to both private and council led plan changes, and ensures the consequences and actions of re-zoning new greenfield areas are adequately considered in the context of the whole of the Heretaunga Plains sub-region.

The HPUDS review process, means the creation of new greenfield areas under Policy UD4.2 is only likely to occur in the following circumstances. Firstly, if one of the greenfield growth areas specified in Policy UD4.3 is deemed unviable for development, a new area will need to be proposed to compensate for the 'lost lots' in that area. Secondly, if reporting in Policy UD14.1 suggests the future development trends for the Heretaunga Plains sub-region have changed, and more growth areas are required than initially anticipated.

The areas determined as inappropriate for further residential greenfield development at this time (for various reasons), have been identified in Policy UD4.4 (established during development of the 2010 Heretaunga Plains Urban Development Strategy).

- POL UD5 CONTAINING URBAN ACTIVITIES WITHIN URBAN LIMITS (HERETAUNGA PLAINS SUB-REGION)** Except as provided for in POL UD6.1 (provision for papakainga and marae-based development), district plans shall include policies and methods to avoid inappropriate urban activities beyond urban limits established in accordance with POL UD4.1 within the Heretaunga Plains sub-region.

Principal reasons and explanation

In containing urban development, it is essential that urban activities are avoided beyond the urban limits established in response to POL UD4.1.

^{1e} Reference should be made to the Heretaunga Plains Urban Development Strategy for more information on these future greenfield growth areas.

PROVISION FOR PAKAINGA AND MARAE-BASED DEVELOPMENT (REGION)

POL UD6.1 District plans shall, where appropriate enable papakainga and marae-based development in accordance with tikanga Maori values, outside existing urban areas and any urban limits, provided development:

- a) Avoids or mitigates the following locational constraints:
 - i. projected sea level rise as a result of climatic changes
 - ii. active coastal erosion and inundation
 - iii. stormwater infrastructure that is unable to mitigate identified flooding risk
 - iv. flood control and drainage schemes that are at or over capacity
 - v. active earthquake faults
 - vi. high liquefaction potential
 - vii. nearby sensitive waterbodies that are susceptible to potential contamination from on-site wastewater systems or stormwater discharges
 - viii. no current wastewater reticulation and the land is poor draining
 - ix. identified water short areas with the potential to affect the provision of an adequate water supply.

PAPAKAINGA AND MARAE-BASED DEVELOPMENT (REGION)

POL UD6.2 Papakainga and marae-based development shall be encouraged, where possible; to:

- a) integrate with existing development
- b) integrate with the provision of strategic and other infrastructure (particularly strategic transport networks in order to limit network congestion, reduce dependency on private motor vehicles and promote the use of active transport modes).
- c) Promote, and not compromise, social infrastructure including community, education, sport and recreation facilities and public open space.

Principal reasons and explanation

Housing and associated activities around rural marae have been in existence for many years. Provision is made for accommodating growth through papakainga and marae-based development on ancestral land, which may fall outside urban limits. The continuation and expansion of papakainga and other marae based activities, subject to relevant statutory processes, gives effect to the requirements of sections 6(e), 7(a) and 8 of the Act and also recognises the statutory provisions in the Te Ture Whenua Maori Act 1993. This policy provides tangata whenua with the potential to meet their housing and economic development needs.

ENCOURAGING INTENSIFICATION OF RESIDENTIAL ACTIVITY

INTENSIFICATION IN EXISTING RESIDENTIAL AREAS (HERETAUNGA PLAINS SUB-REGION)

POL UD7 In the Heretaunga Plains sub-region, district plans shall include objectives, policies and methods promoting intensification by redevelopment of suitable locations within existing residential areas.

Principal reasons and explanation

An increasing proportion of the residential growth of the Heretaunga Plains sub-region is expected to take place through intensification, by redevelopment within existing residential and rural residential areas, in the move towards more compact urban form for the Heretaunga Plains sub-region. The existing urban areas most suited to intensification will be determined by the relevant territorial authority and included in the district plan. Between 2015 and 2045, the proportion of growth accommodated through intensification is intended to increase from approximately 45% to 60% (refer Table 1 below).

Table 1: Proportion of Additional Households by Type of Development for the Heretaunga Plains Sub-Region 2015-2045
(based on 2010 projections)

Type of Development	Proportion of Additional Households [No.]			
	2015-2025	2025-2035	2035-2045	2015-2045
Intensification	45% [1,872]	55% [1,502]	60% [674]	51% [4,048]
Greenfields	45% [1,872]	40% [1,092]	35% [394]	42% [3,358]
Rural Residential	10% [416]	5% [136]	5% [56]	7% [608]
TOTAL	100% [4,160]	100% [2,730]	100% [1,124]	100% [8,014]

DENSITY OF RESIDENTIAL DEVELOPMENT AREAS (HERETAUNGA PLAINS SUB-REGION)

POL UD8

In the Heretaunga Plains sub-region, residential subdivision and development shall seek to achieve the following minimum net densities, where appropriate, within greenfield growth or intensification development areas, to be achieved in a staged manner by 2045:

- a) an average yield of 15 lots or dwellings per hectare in each greenfield growth area developed post 31 December 2015;
- b) an average yield of 20 lots or dwellings per hectare within each intensification development area.

Principal reasons and explanation

The setting of net density targets reflects the promotion of more intensive developments, in transitioning to more compact urban form for the Heretaunga Plains sub-region over time. The policy expresses desired minimum net densities averaged over each greenfield growth area or intensification development area in a staged manner. It is accepted that achievement of these densities may be constrained by various limiting factors, such as orientation, topography and geology, which may lead to areas achieving lower or higher density yields. However, it is expected that overall greenfield growth areas and intensification development areas will set out to achieve these minimum net densities, and that they will be achieved across the sub-region by 2045.

The mechanism of how to achieve the density targets through subdivision and land use development will be provided in the relevant district plan. This will enable territorial authorities to determine the speed in which intensification occurs, and develop appropriate design guidelines for influencing intensive development for inclusion in their district plans. Further, before rezoning land for urban purposes, territorial authorities are required to ensure that structure plans are put in place (see Policy UD10.1).

ACHIEVING STRATEGIC INTEGRATION OF INFRASTRUCTURE WITH LAND USE

SEQUENCING (HERETAUNGA PLAINS SUB-REGION)

POL UD9.1

In the Heretaunga Plains sub-region, district plans shall provide for the strategic integration of infrastructure and development through the staged release of new greenfield growth areas.

SEQUENCING DECISION-MAKING CRITERIA (HERETAUNGA PLAINS SUB-REGION)

POL UD9.2

In the Heretaunga Plains sub-region, the sequencing of development for greenfield growth areas shall be based on the following criteria:

- a) Availability and costs of infrastructure services (water, wastewater, stormwater, transport and electricity distribution);
- b) The operational capacity of strategic infrastructure (particularly strategic transport networks); and
- c) Balanced supply and locational choice across the sub-region.

Other factors that may be taken into account include (but are not limited to):

- d) The accessibility and capacity of social infrastructure (particularly community, education, sport and recreation facilities and public open space);
- e) The sustainable management of natural and physical resources;
- f) The availability of employment opportunities in and near the greenfield growth areas;
- g) The willingness and timeframe of landowners to participate in greenfield growth plans;
- h) The opinion of developers regarding land for greenfield growth to ensure the sequencing is feasible and will result in positive growth and investment.

Principal reasons and explanation

The market has not always delivered infrastructure or a development pattern in a way that is efficient and cost-effective for the community. Addressing the timing and sequencing of development is designed to ensure, within broad limits, that development proceeds in a way that gives infrastructure service providers time to match demand, and the ability to fund that service delivery, and also to ensure sufficient locational choice. Sequencing will provide more certainty to the community, developers and infrastructure providers about when and where development is likely to occur. The overall purpose is to provide a broad framework that signals to the market the importance of integrating public and private development decisions.

STRUCTURE PLANS (HERETAUNGA PLAINS SUB-REGION)

POL UD10.1

In the Heretaunga Plains sub-region, development of urban activities within greenfield growth areas shall occur in accordance with a comprehensive structure plan. Structure plans shall be prepared when it is proposed to amend the district plan, and shall be included in the district plan to provide for urban activities.

AD HOC URBAN DEVELOPMENT (HERETAUNGA PLAINS SUB-REGION)

POL UD10.2 In the Heretaunga Plains sub-region, avoid inappropriate ad hoc urban development within the residential greenfield growth areas identified in Policy UD4.3 or created under Policy UD4.2 prior to rezoning taking place.

STRUCTURE PLANS (REGION)

POL UD10.3 Notwithstanding Policy UD10.1, structure plans for any area in the Region shall:

- a) Be prepared as a single plan for the whole of a greenfield growth area;
- b) Be prepared in accordance with the matters set out in POL UD12;
- c) Show indicative land uses, including:
 - i. principal roads and connections with the surrounding road network and relevant infrastructure and services;
 - ii. land required for stormwater treatment, retention and drainage paths;
 - iii. any land to be set aside for business activities, recreation, social infrastructure , environmental or landscape protection or enhancement, or set aside from development for any other reason; and
 - iv. pedestrian walkways, cycleways, and potential public passenger transport routes both within and adjoining the area to be developed;
- d) Identify significant natural, cultural and historic or heritage features;
- e) Identify existing strategic infrastructure; and
- f) Identify the National Grid (including an appropriate buffer corridor).

STRUCTURE PLANS (REGION)

POL UD10.4 Notwithstanding Policy UD10.1, in developing structure plans for any area in the Region, supporting documentation should address:

- a) The infrastructure required, and when it will be required to service the development area;
- b) How development may present opportunities for improvements to existing infrastructure provision;
- c) How effective provision is made for a range of transport options and integration between transport modes;
- d) How provision is made for the continued use, maintenance and development of strategic infrastructure;
- e) How effective management of stormwater and wastewater discharges is to be achieved;
- f) How significant natural, cultural and historic or heritage features and values are to be protected and/or enhanced;
- g) How any natural hazards will be avoided or mitigated; and
- h) Any other aspects relevant to an understanding of the development and its proposed zoning.

Principal reasons and explanation

Structure plans provide a mechanism for integrating urban development with infrastructure, making the best use of existing infrastructure, and identifying and providing for the additional infrastructure required to meet the needs of incoming residents and businesses. Development occurring ahead of rezoning has the potential to reduce the efficiency of infrastructure and limit the options available when developing a structure plan for the area.

Structure plans provide the mechanism for integrating new development with existing urban areas, ensuring urban growth is accommodated in a sustainable way, and that all constraints are investigated and addressed or protected at the time of initial zoning for urban purposes. Infrastructure providers should be consulted early on in the structure planning process to ensure appropriate decisions are made as to how servicing is to be achieved, whether the proposed development is appropriate, and what limitations may exist. Policy UD10.3(e) and (f) ensure strategic infrastructure is taken into account when developing an area for urban activities, in particular sub-clause (f) specifically gives effect to Policy 11 of the National Policy Statement on Electricity Transmission, which refers to identification of an appropriate buffer corridor around National Grid lines.

REZONING FOR URBAN DEVELOPMENT (REGION)

POL UD11 Notwithstanding Policy UD10.1, within the Region, any rezoning for the development of urban activities should be accompanied by a structure plan for inclusion in the district plan, in accordance with the matters in POL UD10.3 and POL UD10.4, and POL UD12.

MATTERS FOR DECISION-MAKING (REGION)

- POL UD12** In preparing or assessing any rezoning, structure plans, or other provisions for the urban development of land within the Region, territorial authorities^{1f} shall have regard to:
- a) The principles of the New Zealand Urban Design Protocol (Ministry for the Environment, 2005);
 - b) New Zealand Standard NZS4404:2010 Land Development and Subdivision Infrastructure, and subsequent revisions;
 - c) Good, safe connectivity within the area, and to surrounding areas, by a variety of transport modes, including motor vehicles, cycling, pedestrian and public transport, and provision for easy and safe transfer between modes of transport;
 - d) Location within walkable distance to community, social and commercial facilities;
 - e) Provision for a range of residential densities and lot sizes, with higher residential densities located within walking distance of commercial centres;
 - f) Provision for the maintenance and enhancement of water in waterbodies, including appropriate stormwater management facilities to avoid downstream flooding and to maintain or enhance water quality;
 - g) Provision for sufficient and integrated open spaces and parks to enable people to meet their recreation needs, with higher levels of public open space for areas of higher residential density;
 - h) Protection and enhancement of significant natural, ecological, landscape, cultural and historic heritage features;
 - i) Provision for a high standard of visual interest and amenity;
 - j) Provision for people's health and well-being through good building design, including energy efficiency and the provision of natural light;
 - k) Provision for low impact stormwater treatment and disposal;
 - l) Avoidance, remediation or mitigation of reverse sensitivity effects arising from the location of conflicting land use activities;
 - m) Avoidance of reverse sensitivity effects on existing strategic and other physical infrastructure, to the extent reasonably possible;
 - n) Effective and efficient use of existing and new infrastructure networks, including opportunities to leverage improvements to existing infrastructure off the back of proposed development;
 - o) Location and operational constraints of existing and planned strategic infrastructure;
 - p) Appropriate relationships in terms of scale and style with the surrounding neighbourhood; and
 - q) Provision of social infrastructure.

Principal reasons and explanation

These matters provide general guidance to territorial authorities and developers involved in the preparation and assessment of urban developments, recognising that good urban design will increase the efficiency and effectiveness of urban areas – both in terms of quality of life, and the efficient and effective provision of infrastructure and community services. These matters are considered especially important in achieving quality urban environments given the policy direction towards higher density development.

^{1f} The matters set out in POL UD12 are in addition to local authorities' legal obligations stated in the Resource Management Act to give effect to, or have regard to, national policy statements, national environmental standards, iwi management plans, etc.

SERVICING OF DEVELOPMENTS (REGION)

POL UD13 Within the region, territorial authorities shall ensure development is appropriately and efficiently serviced for the collection, treatment, disposal or re-use of sewage and stormwater, and the provision of potable water by:

- a) Avoiding development which will not be serviced in a timely manner to avoid or mitigate adverse effects on the environment and human health; and
- b) Requiring these services to be designed, built, managed or upgraded to maximise their ongoing effectiveness.

Principal reasons and explanation

Appropriate provision for sewerage, stormwater and potable water infrastructure is essential to people's wellbeing, health and safety and to environmental health, as well as ensuring adverse effects on the receiving environment are avoided or mitigated. Developments must manage the disposal and treatment of sewage and stormwater recognising the receiving environment (its receiving capacity, and limitations in terms of environmental quality). Servicing should be considered early in the development process. This will ensure that appropriate decisions are made as to how servicing is to be achieved, whether the proposed development is appropriate, and what site limitations may exist. This also enables consideration of water conservation and water efficiency methods.

[Refer also POL18(d) (Chapter 3.8 – Groundwater Quality) re: connections to reticulated systems]

MONITORING AND REVIEW OF DEVELOPMENT IN HERETAUNGA PLAINS SUB-REGION

MONITORING (HERETAUNGA PLAINS SUB-REGION)

POL UD14.1 Information will be collected on development and infrastructure trends and pressures in the Heretaunga Plains sub-region, so that these trends and pressures can be responded to appropriately and in a timely manner, to support further regular reviews of the Heretaunga Plains Urban Development Strategy and so this information can be used to assess the need for changes to the settlement pattern in Policies UD2, UD3, UD4.1, UD4.2, UD4.3, UD4.4, UD4.5, UD7 and UD8.

REVIEWS (HERETAUNGA PLAINS SUB-REGION)

POL UD14.2 Hawke's Bay Regional Council will review Policies UD2, UD3, UD4.1, UD4.2, UD4.3, UD4.5, UD4.4, UD7 and UD8, including the extent, location and sequencing of land for development in the Heretaunga Plains sub-region, in collaboration with Napier City Council, Hastings District Council, the New Zealand Transport Agency and any other relevant parties, if any of the following situations occur:

- a) reporting in POL UD14.1 recommends that a review is needed; or
- b) household and/or population growth varies by more than 10% over 5 consecutive years from the household and population predictions in HPUDS; or
- c) HPUDS partners agree that insufficient land exists within the identified greenfield growth areas to cater for household and business growth anticipated within 10 years of the analysis; or
- d) HPUDS partners agree that exceptional circumstances have arisen such that a review is necessary to achieve Objectives UD2, UD3 and UD4 in particular.

Principal reasons and explanation

The preferred settlement pattern for future growth in the Heretaunga Plains sub-region is based on certain assumptions about likely future development trends and requirements in the Heretaunga Plains sub-region. Policy UD14.1 establishes the need to collect and report information on development trends and pressures that is needed to help inform future revisions of HPUDS and to provide information to support Policy UD14.2. The information referred to in Policy UD14.1 can be collected in a variety of ways including those set out in HPUDS and Method UD2. Policy UD14.2 recognises that conditions could change such that the preferred settlement pattern and greenfield growth areas need to be reviewed to ensure ongoing management of development in the Heretaunga Plains sub-region remains appropriate. Examples of exceptional circumstances include a natural event causing widespread damage to land and property; a large local or sub-regional company relocating operating facilities into, or out of, the area.

METHODS

Many of the policies in this chapter will be given effect to by territorial authorities through inclusion of appropriate provisions in district plans and in decisions on resource consents and designations. The policies in this chapter will also be given effect to through methods in the Regional Resource Management Plan and Regional Coastal Environment Plan.

The following are additional methods being used or to be used by the Regional Council to implement policies in this Chapter. Territorial authorities may also use or intend using any of these methods or similar methods:-

Advocacy

MET UD1 Hawke's Bay Regional Council will:

- a) Promote alignment of relevant regional and district plan provisions applying to land use management throughout the region and in particular, on the versatile land of the Heretaunga Plains.
- b) Encourage the replacement of onsite wastewater disposal systems where there are multiple systems in close proximity, with reticulated wastewater systems.
- c) Promote awareness of the effects of stormwater discharges on water quality.
- d) Promote low impact urban design and development (LIUDD).
- e) Encourage the adoption of land based mitigation of stormwater, including the use of wetlands.
- f) Advocate a whole-of-catchment approach to the management of water.
- g) Promote development setbacks and buffer zones to protect natural physical processes, ensure natural hazard mitigation and manage reverse sensitivity effects.
- h) Promote awareness of natural hazard risk, particularly risks associated with coastal erosion and inundation.
- i) Promote awareness of limits on availability of potable water supplies and potential reverse sensitivity impacts on lawful efficient water use.
- j) Promote setbacks and buffer zones to protect the ongoing operation, maintenance and development of strategic infrastructure.

Monitoring and Review

MET UD2 Hawke's Bay Regional Council, in conjunction with the territorial authorities in the Heretaunga Plains sub-region, will update the Heretaunga Plains Urban Development Strategy on a regular basis through regular review of the information used, particularly in the forecasting of growth, funding of infrastructure and assumptions. As a minimum, monitoring of the demographic projections upon which HPUDS is based and projected actual uptake rates will be undertaken following each census. These reviews will feed back into monitoring the effectiveness of the Regional Policy Statement.

Cross Boundary Liaison/Collaboration

MET UD3 Hawke's Bay Regional Council will:

- a) Liaise and collaborate on cross boundary infrastructure issues.
- b) Promote a collaborative approach to the sustainable management of versatile land.
- c) Promote a collaborative approach to the management of the coastal environment.

Transportation Strategies

MET UD4 Hawke's Bay Regional Council will ensure urban growth management feeds into and informs transportation strategies and funding – such as the Heretaunga Plains Transportation Study, regional transport strategies, and corridor studies.

Provision of Information and Services

MET UD5 Hawke's Bay Regional Council will continue to monitor, research and map natural hazards, and review hazard and risk information, and provide information and guidance to territorial authorities on natural hazards and natural hazard risk.

Preparation and Review of Objectives, Policies and Methods in Regional Plans

MET UD6

Hawke's Bay Regional Council will set out objectives, policies and methods in regional plans which:

- a) Avoid cumulative effects of discharges from on-site wastewater treatment and disposal systems;
- b) Discourage discharges from new community wastewater collection, treatment and disposal systems in circumstances where a suitable existing community system is available;
- c) Ensure discharges of stormwater are managed so that the impact on water quantity of development is similar to that which existed prior to the development and avoids or mitigates any increase in downstream flood risk;
- d) Ensure appropriate treatment of stormwater discharges occurs to avoid or mitigate inappropriate adverse effects on water quality and the receiving water body;
- e) Encourage and where appropriate require the progressive upgrading and development of discharges from wastewater and stormwater systems where these currently result in inappropriate adverse effects on the environment;
- f) Control the adverse effects of development on water bodies, including their value as sources of drinking water;
- g) Enable the development and use of strategic infrastructure while controlling adverse effects of that development and use.

[Refer also:

- *POL5 and POL6 Non-Regulatory Methods (Chapter 3.5) re: land use conflicts*
- *POL55 Non-Regulatory Methods (Chapter 3.12) re: natural hazards*
- *Methods in Chapter 4 – sections 4.3 (Liaison with Territorial Authorities, 4.5 (Works and Services), 4.6 (Research and Investigation) and 4.7 (Monitoring)*
- *POL56 Non-Regulatory Methods (Chapter 3.13) re: Territorial Authority liaison and provision of information in relation to regional infrastructure]*

ANTICIPATED ENVIRONMENTAL RESULTS

- AER UD1** Availability of sufficient land to accommodate population and household growth, as and where required, while retaining versatile land for existing and foreseeable future primary production.
- AER UD2** Balanced supply of affordable residential housing and locational choice in the Heretaunga Plains sub-region.
- AER UD3** More compact, well-designed and strongly connected urban areas.
- AER UD4** Napier and Hastings retained as the primary urban centres for the Heretaunga Plains sub-region.
- AER UD5** Encroachment of urban activities (residential, commercial, industrial) onto the versatile land of the Heretaunga Plains is confined to defined greenfield growth areas within specified urban limits.
- AER UD6** The retention, as far as is reasonably practicable, of the versatile land of the Heretaunga Plains for existing and foreseeable future primary production.
- AER UD7** Efficient utilisation of existing infrastructure.
- AER UD8** Efficient utilisation of infrastructure which has already been planned and committed to by a Local Authority (e.g. by funding) but not yet constructed.
- AER UD9** Increased use of public transport and active transport modes (cycling, walking), reduced dependency on the private motor vehicle and reduced energy use.
- AER UD10** Planned provision for, and protection of, infrastructure to support existing development and anticipated urban growth in defined growth areas.
- AER UD11** Urban activities and urban development maintains groundwater and surface water quality and habitat health.
- AER UD12** Urban development is avoided in areas identified as being at unacceptable risk from natural hazard (flooding, coastal inundation, coastal erosion, liquefaction, land instability).
- AER UD13** New development is appropriately serviced by wastewater, stormwater, potable water and multi-modal transport infrastructure.
- AER UD14** The efficient provision of freight links for distribution to and from the region.

3.2 The Sustainable Management of Coastal Resources

ISSUE

- 3.2.1 ***Integrated management of the region's coastal resources across a wide range of natural and physical conditions, administrative responsibilities cultural considerations, and matters of social and economic well being.***

OBJECTIVES

- OBJ 4** Promotion of the preservation of the natural character of the coastal environment and its protection from inappropriate subdivision, use and development.
- OBJ 5** The maintenance and where practicable and in the public interest, the enhancement of public access to and along the coast.
- OBJ 6** The management of coastal water quality to achieve appropriate standards, taking into account spatial variations in existing water quality, actual and potential public uses, and the sensitivity of the receiving environment.
- OBJ 7** The promotion of the protection of coastal characteristics of special significance to iwi, including waahi tapu, tauranga waka, taonga raranga, mahinga kai and mahinga mataitai.
- OBJ 8** The avoidance of further permanent development in areas prone to coastal erosion or inundation, taking into account the risk associated with global sea level rise and any protection afforded by natural coastal features.
- OBJ 9** Appropriate provision for economic development within the coastal environment, including the maintenance and enhancement of infrastructure, network utilities, industry and commerce, and aquaculture.
- OBJ 10** Enabling safe and efficient navigation.

Explanation and Reasons

- 3.2.2 The coastal environment includes the coastal marine area (the area from mean high water springs to the outer limits of the territorial sea) and the adjacent land that is affected by maritime influences, the air above it, and coastal water.
- 3.2.3 People and communities in the region are aware of, and have concerns about, the sustainable management of the coastline.
- 3.2.4 The environment of the coastline contributes to the characteristics which give Hawke's Bay its unique identity. This environment provides a social, recreational, cultural and economic resource for the regional community and for visitors. Public use and enjoyment of the coastline are, in turn, dependent on the protection and maintenance of its physical and biological diversity, health and well-being. Areas of wildlife habitat, marine and land-based vegetation, and geomorphological features also have value. These contribute to the distinctive natural identity of New Zealand in general, and the region in particular.
- 3.2.5 Among the significant features of the region's coastline are the spiritual and cultural significance of the sea to tangata whenua, the recreational amenities of coastal areas, and the importance of the coastal waters as a way of transporting goods.
- 3.2.6 Integrated management of the coast requires special effort as the regional council and the territorial authorities in the region jointly manage the coastal environment area landward of the "Coastal Marine Area". This is achieved through district and (as appropriate) regional plans. However, the "Coastal Marine Area" is primarily the responsibility of the Hawke's Bay Regional Council, which must prepare a Regional Coastal Plan. HBRC has combined its regional coastal plan with other regional planning provisions applicable to the coastal environment into the Regional Coastal Environment Plan. The coastal environment includes the coastal marine area and an area of land immediately adjacent to the coast. The Minister of Conservation also retains some specific responsibilities over the coastal marine area.
- 3.2.7 The New Zealand Coastal Policy Statement (NZCPS) provides principles for, and guidance to, regional and territorial authorities in managing coastal resources. The NZCPS links matters of national importance, as set out in the Act, with the objectives, policies, rules and other provisions of regional and district plans, including the Regional Coastal Environment Plan. The Regional Coastal Environment Plan thus contains a greater level of detail for areas and activities within the coastal environment than the broad regional policy framework for coastal resources included in the Regional Policy Statement.
- 3.2.8 The preservation of the natural character of the coastal environment is specified as a matter of national importance in the Act. The natural character of the coast embraces ecological, physical, spiritual, cultural, intrinsic and aesthetic values. While it is a matter of national importance to preserve those values, the Act does not preclude appropriate use and development, particularly where natural character has already been compromised.
- 3.2.9 Public access to and along the coast is an important issue for the residents of Hawke's Bay. It is also a matter of national importance in the RMA. In planning for the use, development and protection of the natural and physical resources in the coast, public access as far as possible should be maintained. In certain circumstances it may be desirable to enhance public access to and along the coast.

- 3.2.10 Good water quality is important for the sustainable management of natural and physical resources in the coastal environment and is an issue of prime concern to the residents of Hawke's Bay. However, water quality may vary over time and in different areas. An appropriate management framework includes achieving standards through management of discharge including point and non-point source discharges from land and to sea.
- 3.2.11 Tangata whenua of Hawke's Bay have strong traditional and cultural relationships with the sea. The identification and protection of coastal characteristics of special significance to iwi recognises the special relationships that iwi have with coastal resources.
- 3.2.12 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 achieve the purpose of the Act. This approach enables people to provide for their safety and recognises the reasonably foreseeable needs of future generations. It also gives a clear indication to resource users that development in these areas is inappropriate and indicates that local authorities are accountable for any development that does occur in these areas.
- 3.2.13 The provisions of the Act do not relate solely to the control of environmental effects. Providing for economic development in the coastal environment within the region is necessary to achieve the purpose of the Act because the Act requires the Council to promote the sustainable management of both natural and physical resources. Physical resources include land and structures and includes the structures in the region which add to the present and future economic well-being of the region. The responsibility for providing for the social, economic, cultural, health and safety needs of the community lies in part with the Regional Council. The economic well-being of the people and communities of the region requires the continuation of an economic infrastructure.
- 3.2.14 There are a number of existing surface water activities in Hawke's Bay ranging from passive recreation to recreational use of boats, yachts and pleasure craft, to commercial fishing and port related shipping. New activities may occupy coastal marine space and may have the potential to enhance or conflict with navigational needs. Promoting safe and efficient navigation is necessary to promote the purpose of the Act because it enables people and communities to provide for their social, cultural and economic well-being and for their health and safety.

POLICIES

- 3.2.15 There are no specific policies relating to the coastal environment part of this Plan, although provisions within the Regional Policy Statement parts of this Plan do apply within the coastal environment. Specific regional plan provisions (including policies) for the coastal environment are contained within the Regional Coastal Environment Plan.
- 3.2.16 The Hawke's Bay Regional Coastal Environment Plan is a combined Plan, incorporating the regional coastal plan that HBRC is required to prepare. It sets out in some detail objectives, policies and methods including rules which are the basis for management of the coastal environment. Thus the Regional Policy Statement of this Plan does not repeat or elaborate on the above objectives, and the Regional Coastal Environment Plan should be referred to for further detail.
- 3.2.17 Under the Act, HBRC has shared responsibility with the territorial authorities for management of activities and effects of activities within the coastal environment.
- 3.2.18 Some aspects of those activities are the sole responsibility of district councils – particularly managing the effects of land uses, development and subdivision in terms of the Act and in ways which are not inconsistent with this Regional Policy Statement or regional plans. District Plans should also be referred to as these may set out specific objectives, policies, methods and rules for the landward side of the coastal environment.

3.3 Loss and Degradation of Soil

ISSUE

3.3.1 Loss and degradation of soil, in particular:

- (a) Accelerated hill country erosion caused by the clearance of vegetation, inappropriate pastoral farming, and earthworks.
- (b) Wind erosion caused by inappropriate cultivation practices.
- (c) Degradation of soil health due to inappropriate management practices.
- (d) The adverse effect of soil loss on water quality.

OBJECTIVES

- OBJ 11** An ongoing reduction in the extent and severity of hill country erosion.
- OBJ 12** The avoidance of loss in the productive capability of land, as a result of inappropriate land use practices hastening wind erosion.
- OBJ 13** The avoidance of nuisance effects or economic losses on adjoining properties as a result of wind erosion.
- OBJ 14** The avoidance of loss in the productive capability of land, as a result of reduced soil health.

Explanation and Reasons

- 3.3.2 Hill country erosion refers to large and obvious examples of mass movement. These include earth flows, gully erosion, slips, slump erosion, and rock slides. Hill country erosion is very prominent in Hawke's Bay, particularly in northern and coastal areas. A degree of natural erosion can be expected, and this is evident even in naturally forested areas after severe storm events. However, erosion rates have been accelerated where:
 - (a) Land has been managed for maximum production (through increased pasture areas and high stocking rates) rather than in a manner which more closely aligns with the capability of the land.
 - (b) Vegetation has been cleared, resulting in insufficient deep-rooting vegetative species that bind erodible soils.
 - (c) Tracking and other earth works lays the land bare, exposing it to rain, frost and wind.
- 3.3.3 There are three issues regarding erosion: a natural rate of erosion (under natural vegetation); accelerated erosion due to the removal of natural forest, and pasture establishment; and aggravated accelerated erosion, due to inappropriate land management practices, such as over grazing of pasture.
- 3.3.4 Intensive pastoral farming undertaken on land that is not physically capable of sustaining high stocking rates, such as some hill country in Hawke's Bay, will accelerate erosion. The degradation of pasture by grazing stock, and the pugging and compaction of soils may further increase the susceptibility of hill slopes to mass movement.
- 3.3.5 Although pasture cover can return within a few years after a period of erosion, it is likely that the new growth will be less productive than previous pasture, as the underlying sub-soil is thinner and holds fewer nutrients. Generally, it takes about 20 years for pasture to return to 70-80% of its pre-erosion cover, and if erosion is repeated, areas may become barren (Ministry for the Environment, 1997). However, the impact on productivity can be worse. Trustrum et al. (1984) reported that pastoral land in Hawke's Bay which has been subject to slips can take up to 60 years to return to 80% of its pre-slip productivity level. If erosion is repeated, areas may become barren.
- 3.3.6 As well as reducing productivity, erosion can have other effects. There can be disruption to infrastructure such as roads and fences. Mass movement of soil can also add large volumes of sediment to water bodies - affecting water quality and ecosystems, and exacerbating flood risks.
- 3.3.7 Forest vegetation can reduce the amount and degree of erosion by intercepting rainfall, increasing evapotranspiration rates and reinforcing soils through the root network. Good forestry practice can reduce the risk of soil erosion that may follow harvesting, particularly when followed by storm events. The level and extent of erosion that results from the removal of trees is dependent on a number of factors including the tree species, the area felled, the method of felling, the implementation of other forestry management techniques used to minimise runoff and erosion and the underlying geology.

- 3.3.8 The northern part of the Hawke's Bay region has a predominance of siltstone hill country. This area is the most erosion-prone landform in the region, and is subject to high intensity rainstorms with a recurrence interval averaging 3 to 5 years. These cyclonic rainstorms can cause erosion on large areas. Extreme events during the last two decades have included Cyclone Bola in 1988 which caused widespread impacts, and the series of cyclones in 1997 which severely affected land in the Wairoa District. It was estimated (Trustum and Page, 1991) that Cyclone Bola moved 1.35 million m³ of soil in the Tutira catchment, and that 90% of the sediment was derived from just 44% of the area. This equates to a surface lowering of about 42 mm across the entire catchment, or about 85 mm in the highly erodible area.
- 3.3.9 The (mostly coastal) hill country of southern Hawke's Bay largely consists of jointed mudstone. This is subject to earthflow erosion, particularly where it is dissected by gullies or undercut by streams. However, the extent of erosion is not as severe as that in the northern siltstone hill country.
- 3.3.10 The Hawke's Bay region's lowland areas are characterised by stable soils with a relatively high fertility. However, some of these areas are susceptible to wind erosion. Wind erosion is most likely to occur where the land has been laid bare by cropping, erosion or earth works. Wind erosion exacerbated by cultivation has been identified in areas of Hawke's Bay, where soils are dry and light. Such erosion has resulted in the loss of the soil resource, and dust nuisance to properties downwind. In extreme cases, dust resulting from wind erosion has caused immediate economic losses by smothering crops on properties downwind. Wind erosion can also occur in coastal dune areas, and hill country areas during summer droughts.
- 3.3.11 The degradation of soil health, including its physical and biological properties, reduces a soil's productivity, often leading to increased inputs of fertiliser, irrigation and cultivation as short term compensators. This increases the risk of leaching and increases use of water and is not sustainable in the long term.¹

POLICIES

POL 1 ROLE OF NON-REGULATORY METHODS

- 3.3.12 To use non-regulatory methods, as set out in Chapter 4, as the primary means for achieving the objectives above and the environmental guidelines set out in Chapter 5, including:
- (a) **Economic instruments** - The provision of financial incentives to facilitate the retirement or sustainable use of erosion-prone areas.
 - (b) **Education and co-ordination** – Actively promoting self-regulation by land owners, assisting with the formation of Landcare Groups, preparing soil conservation farm plans, providing information about sustainable land management practices, and responding to requests for advice.
 - (c) **Encouragement for self-regulation** – Promote and support self-regulation, including the adoption by resource user groups, of guidelines and codes of practice by resource user groups.

Explanation and Reasons

- 3.3.13 Policy 1 sets out the role of the HBRC in providing financial incentives and promoting self-regulation, better land management practices and education, as the primary response to addressing the loss and degradation of soil in the region. By providing financial incentives, and encouraging greater responsibility, accountability, and awareness of the effects of land use, the loss and degradation of soil should be reduced.

¹ For the purposes of this plan “soil health” refers to physical parameters including soil structure and porosity, biological parameters including soil organic matter and earthworms, and chemical parameters including soil contaminants but excluding soil chemical properties generally accepted as measurements of soil fertility.

POL 2 PROBLEM SOLVING APPROACH - WIND EROSION

- 3.3.14 To use both non-regulatory methods as set out in Chapter 4, and enforcement procedures available under section 17 of the Act, to ensure cropping activities are undertaken in a manner which uses the best practicable option to minimise the risk of both erosion and the discharge of offensive or objectionable dust beyond the boundary of the subject property.

Explanation and Reasons

- 3.3.15 Policy 2 sets out Council's two-pronged approach to wind erosion – the encouragement of best practices to minimise the risk of both topsoil loss and of nuisance effects beyond a property boundary; in conjunction with the discouragement of any on-going breach of section 17 by the use of enforcement action.

POL 3 PROBLEM SOLVING APPROACH – VEGETATION REMOVAL

- 3.3.16 (a) To use both non-regulatory methods, as set out in Chapter 4, to discourage the removal of vegetation on highly erodible land, particularly Class VIIe and VIII land, except where:
- (i) The removal of vegetation is for the purpose of providing environmental benefits, including land stabilisation, enhancement of water quality, and/or the establishment of indigenous plant species.
 - (ii) The removal of vegetation is for the purpose of establishing or maintaining a network utility firebreak² or fence line.
 - (iii) The removal of vegetation is for the purpose of harvesting vegetation that was planted for commercial purposes.
 - (iv) The removal of vegetation involves a plant pest and is consistent with the requirements of the Regional Plant Pest Management Strategy.
- (b) To use regulatory methods, as set out in Chapter 6, to discourage the removal of vegetation except where the conditions/standards/terms of Rules 7 and 8 are met.

Explanation and Reasons

- 3.3.17 Policy 3 provides guidance to resource users when considering activities proposed in areas of highly erodible land, particularly on land with a land use capability class of VIIe or VIII. This policy seeks to discourage, through enforcement action and non-regulatory methods, the removal of vegetation in areas of highly erodible land.

ANTICIPATED ENVIRONMENTAL RESULTS

Anticipated Environmental Result	Indicator	Data Source
Reduction in area of land prone to wind erosion	% land prone to wind erosion	% soils at risk from erosion mapped
No long-term degradation in soil health	Change in area susceptible to decline in soil health	Results of "500 soils" project
An increase in the area of the region being sustainably managed	% region being sustainably managed against land use capability	Land cover mapping (5 yearly)
Reduction of sediment deposited in the region's water bodies	Number of incidents reported/complaints received	Council records

² **Firebreak** means an adequate cleared area that is not vegetated to prevent the spread of fire between vegetated areas.

3.4 Scarcity of Indigenous Vegetation and Wetlands

ISSUE

- 3.4.1 **The scarcity of indigenous vegetation, wetlands, and habitats of indigenous fauna as a result of vegetation modification or clearance and land drainage.**

OBJECTIVE

- OBJ 15** The preservation and enhancement of remaining areas of significant indigenous vegetation, significant habitats of indigenous fauna and ecologically significant wetlands.

Explanation and Reasons

- 3.4.2 Before settlement, Hawke's Bay was covered in dense native forest, wetlands and high country tussock. The vast majority of native forest and tussock has been removed, and wetlands have been drained, as a result of successive settlement by Maori and European. This pattern is typical of what happened throughout New Zealand and, indeed, elsewhere in the world wherever land has been developed for human settlement. It is unreasonable to expect revegetation of the landscape back to its pre-settlement state, as this would essentially require a reversing of the pattern of settlement. However, it is important to value the areas of indigenous vegetation and habitat that remain, and encourage the establishment of other areas.
- 3.4.3 Wetlands provide important areas of indigenous habitat, adding to the biodiversity of Hawke's Bay and the stability and quality of the region's waterways. These areas provide habitat for many of our birds, plants and amphibians. They also filter sediment and nutrients, regulate water flows, decrease the frequency and size of floods, and curb erosion.
- 3.4.4 The majority of wetland areas that once covered the Hawke's Bay region have been drained and developed. Less than 10% of the original wetland area of Hawke's Bay remains, and many of the remaining areas are in poor condition or under threat from land use activities.
- 3.4.5 The remaining areas of indigenous vegetation and wetlands are vulnerable to various threats, in particular:
- (a) modification or clearance of indigenous vegetation
 - (b) drainage, diversion of water, or water abstraction affecting the quantity of water in wetlands
 - (c) the presence of animal or plant pests
 - (d) pollutants entering wetlands from aerial spraying, topdressing or land runoff, and
 - (e) land use activities around the margins, particularly wandering and grazing stock and heavy machinery.
- 3.4.6 Because the extent of indigenous vegetation and wetlands is already limited in Hawke's Bay, it is important that those areas remaining are preserved, rather than reduced even further.

POLICIES

POL 4A ROLE OF NON-REGULATORY METHODS

To use both non-regulatory and regulatory methods for protecting significant values of wetlands.

POL 4 ROLE OF NON-REGULATORY METHODS

To use non-regulatory methods, as set out in Chapter 4, as the primary means for achieving the preservation and enhancement of remaining areas of significant indigenous vegetation and ecologically significant wetlands, in particular:

- (a) **Economic instruments** – Providing financial support for the preservation of remaining areas of significant indigenous vegetation or wetlands, including support for the covenanting of indigenous vegetation, at a level of funding as established in the HBRC's Annual Plan.

For the purposes of this policy, significant indigenous vegetation includes any of the following:

- (i) Vegetation that has been especially set aside by statute or covenant, or is otherwise legally managed for protection or preservation.
- (ii) Areas of indigenous vegetation over 40 hectares in size.
- (iii) Any area of naturally occurring indigenous vegetation, with the following characteristics:
 - being over one hectare, where the average canopy height is greater than 6 m

- being five hectares or greater, with an actual or emerging predominance of indigenous tree species of any height (where ‘tree species’ is any species which may attain a diameter at breast height of 30 centimetres or greater in Hawke’s Bay).
 - (iv) Vegetation recommended for protection under the Protected Natural Areas programme or another programme of the Department of Conservation, or recommended for protection in a report by the Forest Heritage Fund or Nga Whenua Rahui Committees.
- (b) **Works and services** – Providing works and services, or financial support, for the preservation of remaining ecologically significant indigenous wetlands at a level of funding as established in the HBRC’s Annual Plan, subject to a management plan or statutory covenant being established for each wetland receiving assistance. Priority for Council’s works and service-related projects will be given to the following wetlands⁴ (see Figure 4):
 - Whakaki Lake
 - Lake Poukawa/Pekapeka Swamp
 - Opoutama Lagoon
 - Whakamahi Lagoon
 - Ngamotu Lagoon
 - Lake Hatuma
 - Waitangi Estuary
 - Maungawhio Lagoon
 - Lake Runanga
 - Lake Oingo.
- (c) **Liaison with territorial authorities** - Advocating to territorial authorities that they establish mechanisms in their district plans which preserve and enhance areas of significant indigenous vegetation and wetlands.
- (d) **Education** – Encouraging landowners not to undertake drainage and diversion activities where these adversely affect the indigenous ecosystems of wetland areas. Protection and support is available through the covenanting of significant areas.

Explanation and Reasons

- 3.4.7 Policy 4 sets out the role of the HBRC in providing financial support, undertaking works and services and liaising with territorial authorities to achieve the preservation and enhancement of the remaining areas of significant indigenous vegetation and wetlands. The HBRC recognises the importance of these remaining significant areas and as a result funding has been established within the Annual Plan for the non-regulatory methods.
- 3.4.8 These non-regulatory methods will assist HBRC in protecting the significant values of wetlands in accordance with Objective A2(B) of the 2011 National Policy Statement for Freshwater Management. These methods will complement regional rules that are included elsewhere in this Plan and the Regional Coastal Environment Plan. Significant values of wetlands can include nutrient filtering, flood flow attenuation, sediment trapping, habitats for flora and fauna, recreation, cultural values and educational value.

⁴ **Priority wetlands for works and services** - Note that some of these wetland areas are located within the coastal marine area (and therefore fall under the provisions of the Regional Coastal Plan rather than this Plan). However, the full list of priority wetlands has been included for the sake of completeness.

3.5 Effects of Conflicting Land Use Activities

ISSUE

- 3.5.1 **The occurrence of off site impacts or nuisance effects, especially odour, smoke, dust, noise, vibrations, agrichemical spray drift and increased traffic, caused by the location of conflicting land use activities.**

OBJECTIVES

- OBJ 16** For future activities, the avoidance or mitigation of off site impacts or nuisance effects arising from the location of conflicting land use activities.
- OBJ 17** For existing activities (including their expansion), the remedy or mitigation of the extent of off site impacts or nuisance effects arising from the present location of conflicting land use activities.
- OBJ 18** For the expansion of existing activities which are tied operationally to a specific location, the mitigation of off site impacts or nuisance effects arising from the location of conflicting land activities adjacent to, or in the vicinity of, areas required for current or future operational needs.

Explanation and Reasons

- 3.5.2 Where different land uses are located adjacent to each other there is always the potential for conflict. This is particularly the case where, for example, there is residential development adjacent to industrial or rural activities, or the use or disposal of organic material associated with rural activities. The proximity of these land uses to one another can cause conflict, predominantly in relation to odour, smoke, dust, noise and agrichemical spray drift (note that the issue of agrichemical use is discussed more fully in section 3.6).
- 3.5.3 The RMA, through the specification of functions of regional councils and territorial local authorities, has created an overlap in functions which complicates the issue. Section 30 of the RMA sets out regional council functions, including the control of the discharge of contaminants into or onto land, air, or water. Intimately related to this are the section 31 land use functions of territorial local authorities. Section 31 accords these organisations the responsibility of controlling the actual and potential effects of the use, development, or subdivision of land. Given that the effects of the land use activity are controlled by the territorial local authority, and any discharge associated with that activity by the regional council, there is often the situation where responsibility shifts from territorial local authority to regional council in terms of function. The control of the emission of noise and the mitigation of the effects of noise are a function of territorial authorities (except in the Coastal Marine Area). In the Coastal Marine Area this has been transferred to the territorial authorities from the regional council.
- 3.5.4 Coupled with this is the need to recognise that the effects of an activity vary according to its location and the surrounding land use activities, e.g. an orchard may not cause any adverse effects to neighbouring orchards and farms, but may cause adverse effects to neighbouring residential areas. Regional Council staff respond to a large number of complaints related to discharges from activities sited in incompatible locations.
- 3.5.5 It is important that local authorities work together to resolve present issues and to ensure that predicaments surrounding conflicting land use activities do not arise from inappropriate planning decisions. This can be most efficiently and effectively achieved through the District Plan development process through techniques involving regulation such as zoning and buffering or the use of separation distances; or the use of non-regulatory methods such as information provision about the potential nuisances likely to arise.
- 3.5.6 Of particular concern to industries and rural businesses are complaints about existing activities made by new neighbours. The viability of existing business activities may be threatened as a result of effects which were not perceived as a problem when the activities were first established. Commonly this occurs when rural lifestyle subdivisions are allowed in traditional farming areas. Odours, noise, agrichemical and fertiliser applications, and dust may be considered to be incompatible with the new adjacent activity. Similar situations arise when residential areas encroach onto industrial areas.
- 3.5.6A Similar concerns are held by the regions infrastructure providers, given that some types of infrastructure can, by their very nature, produce adverse effects which are considered unacceptable by existing activities and the community. For example, infrastructure can cause emissions or vibrations which go beyond the boundaries of the site; or activities associated with the land use may create adverse effects on nearby land, such increased traffic or noise.
- 3.5.6B Such effects need to be planned and managed in an effective manner to ensure established infrastructure is not compromised by the location of sensitive activities nearby, and that existing land uses are not adversely affected by the use and development of new infrastructure.
- 3.5.7 These issues form the justification for management on the basis of “reverse sensitivity”. The Environment Court has defined the term “reverse sensitivity” as the effects of the existence of sensitive activities on other activities in their vicinity, particularly by leading to restraints in the carrying on of those activities. The crux of this principle is that where an existing activity produces a situation that a new activity would likely regard as noxious, dangerous, offensive or objectionable, then the new activity should not be sited next to the existing one. Alternatively, safeguards should be put in place to ensure that the new activity does not curtail the existing one.

- 3.5.8 The principle of reverse sensitivity is receiving increasing recognition in RMA case law, e.g. *McQueen v Waikato District Council* (A045/94), *Auckland Regional Council v Auckland City Council* (A10/97), *RDM Consultants Limited v Manawatu Wanganui Regional Council* (W91/98), and *Coeur Gold NZ and Others v Waikato Regional Council* (A97/98).

POLICIES

POL 5 ROLE OF NON-REGULATORY METHODS

- 3.5.9 To use non-regulatory methods as set out in Chapter 4, in particular **liaison with territorial authorities**, as the primary means of preventing or resolving problems arising from incompatible land use activities and implementing the problem-solving approaches set out below.

Explanation and Reasons

- 3.5.10 Policy 5 recognises that while the issues that arise (e.g. dust, smoke and odour nuisance) are controlled by the HBRC, the conflict between incompatible land uses has generally arisen as a result of past land use planning decisions, and a legal inability to consider the likely effects of conflicting land uses. This policy recognises the need for a collaborative approach as the primary means of preventing and resolving problems that arise from incompatible land uses.

POL 6 PROBLEM-SOLVING APPROACH – FUTURE LAND USE CONFLICTS

- 3.5.11 To recognise that the future establishment of potentially conflicting land use activities adjacent to, or within the vicinity of each other is appropriate provided no existing land use activity (which adopts the best practicable option or is otherwise environmentally sound⁵) is restricted or compromised. This will be primarily achieved through liaison with territorial authorities and the use of mechanisms available to territorial authorities, which recognise and protect the ongoing functioning and operation of those existing activities.

Explanation and Reasons

- 3.5.12 Policy 6 sets out an approach to avoid the existing level of problems arising from incompatible land uses becoming worse as a result of future decisions. In particular, this policy seeks to encompass the notion of “reverse sensitivity”, recognising the rights of existing lawfully established activities.

POL 7 PROBLEM-SOLVING APPROACH – EXISTING LAND USE CONFLICTS

- 3.5.13 To adopt the following approach for addressing existing problems arising from conflicting land use activities that are adjacent to, or within the vicinity of each other:
- (a) Recognise existing lawfully established resource use activities that are operated in a manner that adopts the best practicable option, or which is otherwise environmentally sound.
 - (b) The HBRC will place emphasis on holding discussions and providing information as the primary means of conflict resolution.
 - (c) In the event that further action is necessary, the HBRC may adopt a range of methods to seek to address the problem, including one or more of the following:
 - (i) Working with organisations representing resource users, if such organisations exist
 - (ii) Promoting the use of community working groups which bring affected people together in order to discuss the problem
 - (iii) Using an independent facilitator to mediate between disputing parties
 - (iv) Using the services of independent experts to carry out investigations and for Council to use that information to guide resource user/parties in dispute.

⁵ “Environmentally sound activities” are considered to be those which comply with the Environmental Guidelines set out in Chapter 5; any relevant rules of this Plan; any effects-based environmental guidelines, standards or rules of the relevant territorial authority; and any resource consents required for the activity.

Explanation and Reasons

- 3.5.14 Policy 7 sets out the approach to be taken to address existing problems that arise because of incompatible land uses. Again, this policy expressly recognises the rights of existing lawfully established activities that adopt the “best practicable option” or which are otherwise environmentally sound. Notwithstanding the recognition of existing lawfully established activities, the HBRC will endeavour to resolve any issues by facilitating discussions between affected parties.

POL 8 DECISION-MAKING CRITERIA – ODOUR EFFECTS

- 3.5.15 To have regard to the following factors when considering conditions on resource consents where a discharge of odour to air occurs:
- (a) the likely frequency and duration of odour events
 - (b) the nature of the odour
 - (c) the nature of the local environment where odour may be experienced and the reasonable expectation of amenity within that environment given its zoning
 - (d) any antecedent or contributing factors, including climatic or topographical features
 - (e) the extent to which lawfully established resource use activities operate in a manner that adopts the best practical option, or which is otherwise environmentally sound.

Explanation and Reasons

- 3.5.16 The issue of odour is one of the more frequent complaints which arises as a result of land use effects conflicts. The HBRC assesses each resource consent application on its circumstances and likewise deals with each complaint on a case by case basis. Policy 8 is intended to give some guidance to HBRC when determining resource consent conditions to take into account such factors as the frequency, intensity, duration, offensiveness and location of the odour event. These factors will also be taken into account in assessing any complaint, and the policy acknowledges the unique set of circumstances of each situation.

ANTICIPATED ENVIRONMENTAL RESULTS

Anticipated Environmental Result	Indicator	Data Source
Minimisation of conflict of effects between existing activities	Compliance with rules and consent conditions	Compliance monitoring Incident response monitoring
Reduction in adverse effects of incompatible activities on one another	Consideration given to effects in district plans	District Plans HBRC statutory advocacy records
Avoidance or mitigation of effects between future incompatible activities	Compliance with rules and consent conditions Compliance registers	District Plans Regional Plans

3.6 Agrichemical Use

ISSUE

- 3.6.1 **The potential adverse effects on human health, property and the environment from agrichemical use.**

OBJECTIVE

- OBJ 19** The avoidance of any significant adverse effects on human health, property or the environment from agrichemical use.

Explanation and Reasons

- 3.6.2 Agrichemical use is an issue of considerable concern in the Hawke's Bay region. At present, most primary producers and other organisations such as road and rail authorities, councils and contractors in Hawke's Bay use agrichemicals for plant and animal pest and disease control. Indeed, many primary producers are required to use agrichemicals in accordance with schedules set for export markets. However, problems occur because of conflict between this reliance on chemicals and the concerns of others that may be adversely affected by them. Horticulture is an intensive land use over the Heretaunga Plains, and a major concern to the Council is agrichemical use associated with this activity. Over the year 1998-1999 agrichemical complaints represented 15% of air related incidents in the region.
- 3.6.3 Agrichemicals may adversely affect human health if mismanaged. Effects often take time to manifest themselves and difficulties in undertaking studies to assess health effects mean that the extent of the problem is often unclear. However, this potential for health problems means that particular care is required when agrichemicals are used within close proximity of residential buildings, schools, other areas where people congregate, and public roads. It also indicates the importance of taking a precautionary approach, and notifying people of when agrichemicals are to be used and the levels of risk involved.
- 3.6.4 Agrichemicals may also have other effects if mismanaged. For example, they may affect water quality, sensitive ecosystems and beneficial organisms such as bees and predatory insects. They may also affect the viability of adjacent land uses, particularly organic farming. Organic farming is increasing in the Hawke's Bay region, as the demand for organic produce rises. There is also the potential to create offensive odours when spraying some agrichemicals.
- 3.6.5 People have the right to use agrichemicals safely and responsibly, within legal constraints. Equally, others who may be affected have a right to know what agrichemicals are to be used, or have been used. As there is likely to be a reliance on agrichemicals for some time yet, there is a need to:
- (a) ensure that they are not causing adverse effects on people's health or the environment
 - (b) ensure that they are not being used irresponsibly
 - (c) improve the methods of application, including avoiding excessive or non-target application
 - (d) look for ways of reducing the use of agrichemicals over time where alternatives exist or can be developed, and
 - (e) adequately inform people about agrichemical use.
- 3.6.6 Industry is taking steps towards addressing concerns with agrichemical use. For example, a number of GROWSAFE® training programmes are offered by the New Zealand Agrichemical Education Trust (NZAET) through the Agriculture Industry Training Organisation, and are linked with the National Qualifications framework. These are based on the requirements of the Code of Practice for the Management of Agrichemicals (NZS 8409:2004, NZAET 1999). In addition, Heinz-Wattie Ltd and ENZA operate successful programmes for produce growers, aimed at reducing their reliance on, and use of, agrichemicals.
- 3.6.7 The issue of agrichemical use was thoroughly discussed and addressed during development of the Regional Air Plan (HBRC, 1998). Owing to the relatively recent development of that Plan, and the level of agreement reached on how to manage agrichemical use, this Plan adopts an approach very similar to that contained in the Regional Air Plan.

POLICIES

POL 9 ROLE OF NON-REGULATORY METHODS

3.6.8 To use non-regulatory methods, as set out in Chapter 4, in support of regulatory methods for avoiding adverse effects on human health and the environment from agrichemical use, in particular **education and co-ordination** as follows:

- (a) Advocating to relevant industry and other organisations that, in liaison with the HBRC, they:
 - Provide information and advice to agrichemical users about the safe and responsible use of agrichemicals.
 - Provide general information to the public about agrichemical use in Hawke's Bay, including the types of agrichemicals used, and when, how and why they are used.
- (b) Promoting the safe and responsible use of agrichemicals, including through adherence to the Code of Practice for the Management of Agrichemicals (NZS 8409:2004, NZAET 1999) or other recognised codes of practice.
- (c) Encouraging the use of a decision-making process that takes into account all other practicable alternatives before an agrichemical is used in response to an identified need.
- (d) Promoting the use of suitable mitigation methods to minimise spray drift, such as the planting of shelter belts.

Explanation and Reasons

3.6.9 Policy 9 reflects the importance of ongoing liaison between the HBRC and agrichemical users and the public, so that all parties are working together in managing agrichemical spray drift. It is important for the HBRC to be aware of industry initiatives for the management of agrichemical use, and to discuss its requirements and any public concerns about agrichemical use with the key stakeholders. This policy reflects the Regional Council's belief that the responsibility for educating users and informing the public about agrichemical use also rests with the industries and organisations that represent the users. It also acknowledges the status of the "Code of Practice for the Management of Agrichemicals" as providing valuable information on the use of agrichemicals and the avoidance of spray drift. Policy 9 recognises the importance of educating agrichemical users in other methods that will assist in the reduction of spray drift, such as the planting of shelterbelts.

POL 10 REGULATION – DISCHARGES OF AGRICHEMICALS

3.6.10 To provide for discharges of agrichemicals into air, onto land or into water, in circumstances where the following requirements are met:

- (a) The agrichemicals to be discharged are approved for their intended use.
- (b) The proposed method of application, including the type of spray equipment to be used, the spray volume and droplet size, the direction of spraying and the height of release above the ground, is appropriate for the types of agrichemicals to be used and for the minimisation of spray drift.
- (c) The agrichemical user has appropriate training in respect of agrichemical use.
- (d) The discharge does not cause any adverse effect on human health.
- (e) The discharge does not cause any adverse effects on dwellinghouses, public land, or other areas where people reside or congregate.
- (f) The discharge does not cause any adverse effects on sensitive neighbouring land uses.
- (g) The discharge does not cause any adverse effects on non-target flora and fauna.

- (h) The discharge does not adversely affect the water quality of any water body.
- (i) The discharge does not result in any spray drift being deposited on any roof or other structure used as a catchment for water supply.

Explanation and Reasons

3.6.11 Policy 10 sets out the circumstances when the HBRC will provide for the discharge of agrichemicals into the environment. These circumstances are consistent with the matters prescribed in the New Zealand Standard for the Management of Agrichemicals (NZS 8409:2004) and the safe and responsible use of agrichemicals referred to in Policy 9. Policy 10 is a regulation policy and, as such, its purpose is to set out the parameters whereby the discharge of agrichemicals will be permitted (and, consequentially, when it will be regulated).

ANTICIPATED ENVIRONMENTAL RESULTS

Anticipated Environmental Result	Indicator	Data Source
Reduction in receipt of legitimate complaints about agrichemical spray drift	Number of complaints received	Council records Incident Monitoring
Minimisation of adverse effects of agrichemical sprays on water bodies, and non-target flora and fauna	Number of complaints received	Council records Incident Monitoring

3.7 Management of Organic Material⁶

ISSUE

- 3.7.1 **The actual and potential nuisance and adverse effects on humans, property and the environment due to the poor management and utilisation of organic material derived from primary processing industries.**

OBJECTIVE

- OBJ 20** The management and use of organic material derived from industries processing primary products in a manner that does not result in any adverse effects on humans or the environment.

Explanation and Reasons

- 3.6.12 The Hawke's Bay regional economy is based on primary production activities such as pastoral farming, dairying, forestry, horticulture, orcharding, viticulture and fishing. Most of the produce from these activities is then processed in the region, generating organic by-products such as:

- (a) by-products from the fruit and vegetable processing industries
- (b) apex meal, paunch grass, and stock yard waste from the animal processing plants
- (c) grape marc from wineries
- (d) fish waste from fish processors
- (e) bark and sawdust from timber processing plants
- (f) wool scour waste from wool scourers.

(Note that liquid animal effluent that is collected and managed, such as that from dairy, piggery or poultry sheds, is not included in this issue.)

- 3.7.2 The materials listed above can be used for a variety of purposes such as stock feed, soil conditioners, and composting. The alternative to such beneficial use is disposal as waste, onto or into land. To categorise the use of organic material for beneficial purposes it must be clearly shown that the organic material:

- (a) can and will safely be eaten by stock before it becomes indigestible (where material is used as stock feed)
- (b) will not enter waterways
- (c) will result in a nutrient loading onto land that does not exceed the natural uptake by grass or crops, and
- (d) is not contaminated with non-organic material.

- 3.7.3 The HBRC supports the re-use of organic material, rather than the disposal of it into landfills (or any unauthorised site). However, when organic material decomposes it can produce odours, leachate and other contaminants that may affect neighbouring properties and the environment. Therefore the use of this organic material has to be managed in such a way that these effects are minimised. This can involve a number of management practices such as:

- (a) storing material that might generate leachate on an impervious surface to avoid groundwater contamination
- (b) using fresh material for stock feed to prevent decomposition odours being generated
- (c) only feeding out what the stock will eat, to avoid surplus residual material lying in paddocks
- (d) keeping material covered to avoid flies or other pests, and
- (e) storing and using organic material in locations away from adjoining incompatible activities.

⁶ Section 3.7 of the Regional Resource Management Plan applies only to organic material derived from primary processing industries.

POLICIES

POL 11 ROLE OF NON-REGULATORY METHODS

3.7.4 To use non-regulatory methods, as set out in Chapter 4, in support of regulatory methods for avoiding nuisance and adverse effects on humans and the environment from the use of organic matter, in particular:

- (a) **Advocating** that the industrial and trade premises, which generate organic material, promote the use of this material in such a manner that it will avoid adverse effects.
- (b) **Promoting the composting of suitable organic material**, rather than disposal to landfill.
- (c) **Encouragement for self-regulation** – Promote and support self-regulation by resource users, including the preparation and adoption of guidelines and codes of practice by resource user groups.

Explanation and Reasons

3.7.5 Policy 11 aims to encourage industrial and trade premises, which generate organic material, to take an interest in the use and ultimate disposal of their material once it has left their premises. This policy also notes that the HBRC promotes composting of suitable organic material rather than disposal as waste, and advocates education of appropriate uses and management practices.

POL 12 REGULATION – DISCHARGES FROM THE USE OF ORGANIC MATERIAL

3.7.6 To provide for the discharge of contaminants into air, into land or onto land, from the use of organic material, in such a manner that any adverse effects on the environment are avoided or minimised.

3.7.7 The HBRC may request that a management plan is prepared where the circumstances are such that:

- (a) organic material is sourced from industrial or trade premises
- (b) there are residential properties in close proximity to the activity
- (c) large volumes of organic material are being stored and/or used
- (d) the organic material is likely to be malodorous in nature
- (e) nutrient loadings may exceed the natural uptake rate by grass or crops
- (f) the groundwater resource is particularly susceptible to contamination e.g. on the Heretaunga Plains unconfined aquifer, or on highly permeable soils
- (g) when organic material is stored in a position where it can potentially enter a surface water body.

Explanation and Reasons

3.7.8 Policy 12 provides for the regulation of the discharge of contaminants into the air, and into and onto land, as a result of using organic material. This policy recognises that the use of organic material may produce adverse effects on the environment, particularly where the activity is undertaken in close proximity to residential properties, is malodorous or where it has the potential to contaminate water bodies.

POL 13 REGULATION - COMPOSTING

3.7.9 To require a resource consent to be obtained for the discharge of contaminants into air arising from the composting of more than 100 m³ of compost and raw material per industrial or trade premise.

Explanation and Reasons

3.7.10 Policy 13 provides for the regulation of the composting of over 100 m³ of organic material per industrial or trade premise at any one time (see Rule 28), owing to the potentially malodorous nature of this activity. The composting of up to 100 m³ is permitted in accordance with Rule 29 provided the conditions of this rule are met.

POL 14 DECISION-MAKING CRITERIA – SEPARATION DISTANCES

3.7.11 To require the establishment and maintenance of separation distances in relation to the storage, use or disposal of organic material to ensure that:

- (a) there is no direct runoff of leachate into surface water
- (b) there is adequate vertical separation from groundwater, such that the activity is consistent with Objectives 21 and 22, and
- (c) there are no offensive or objectionable odours imposed on neighbouring properties.

Explanation and Reasons

3.7.12 Policy 14 provides guidance to resource consent applicants and decision-makers when assessing activities that store, use or dispose of organic materials. This policy recognises the importance of buffer zones. A buffer zone is a physical separation of the activity from neighbouring properties or resources and may be either a vertical separation or a horizontal separation.

ANTICIPATED ENVIRONMENTAL RESULTS

Anticipated Environmental Result	Indicator	Data Source
Reduction in adverse effects arising from the use of organic material	Number of complaints received	Council records Incident Monitoring
An increase in composting of organic material	Amount of organic material disposed to landfills	Landfill records

3.8 Groundwater Quality

ISSUE

3.8.1 The risk of contamination of groundwater arising from

- (a) horticultural, agricultural and industrial land use practices
- (b) discharges of contaminants, including the cumulative effects of domestic sewage discharges from unsewered communities
- (c) spills

particularly in the Heretaunga Plains and Ruataniwha Plains aquifer systems, and coastal aquifers.

OBJECTIVES

OBJ 21 No degradation of existing groundwater quality in the Heretaunga Plains and Ruataniwha Plains aquifer systems.^{6A}

OBJ 22 The maintenance or enhancement of groundwater quality in aquifers⁷ 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.

Explanation and Reasons

Heretaunga Plains

3.8.2 The most significant groundwater resource in Hawke's Bay is the Heretaunga Plains aquifer system. During the past 20 years there has been an intensification of rural land use activities, and expansion of urban areas, on the Heretaunga Plains. In the area of the unconfined aquifer there is the potential for adverse effects on groundwater by infiltration of contaminants such as bacteria, nutrients and chemicals through the highly permeable gravels. The risk of contamination arises from a number of activities, including:

- (a) on-site sewage disposal (particularly septic tanks)
- (b) the use, transport and storage of hazardous substances, including hydrocarbon fuels and agrichemicals
- (c) industrial discharges
- (d) intensive horticultural and agricultural land uses
- (e) stormwater discharges
- (f) landfills and offal holes, and
- (g) mining and quarrying.

3.8.3 The groundwater quality in the Heretaunga Plains aquifer system has been investigated and documented in Dravid and Brown (1997). Investigations are continuing. Overall, present groundwater quality is high. Indeed, the quality is such that groundwater is used for domestic supply in Napier and Hastings without treatment. However, as early as 1974 it was recommended that urban development and the storage of hazardous substances be prohibited from the unconfined aquifer area, and that a precautionary approach be taken with respect to future development.

3.8.4 The HBRC has been systematically monitoring groundwater quality on an ongoing basis since 1994. The results show:

- (a) Groundwater quality is high, with only minor contamination evident as a result of identifiable sources, notably the Roys Hill landfill and septic tanks, and diffuse nitrate pollution from intensive land use activities.
- (b) There is a high risk of groundwater contamination from infiltration of contaminants into the unconfined aquifer.

^{6A} Subject to the Ruataniwha Plains being removed by Plan Change 6.

⁷ **Productive aquifers** – For the purposes of this Regional Plan, a “productive aquifer” means an aquifer that has a sufficient quality, quantity and flow of water that it can be used for water supply purposes.

- (c) A number of areas in the shallow unconfined aquifer area have high nitrate contamination (for example, during 2000 groundwater samples collected from a well near Bridge Pa exceeded the drinking water standard for nitrate levels. Council's State of the Environment annual updates may be referenced to identify other affected areas over the life of the Plan).
- (d) The high rate of groundwater flow (up to 1.5 km/y) means that any contamination is rapidly transported through the groundwater system, and therefore dispersed.
- (e) The most likely threat to groundwater quality in shallow confined aquifers is the entry of contaminated water from the unconfined aquifer area.
- (f) Contamination of groundwater in deeper confined aquifers, which have limited hydraulic connection with the unconfined aquifer, is unlikely.

Ruataniwha Plains

- 3.8.5 The Ruataniwha Plains comprise a productive agricultural basin in central Hawke's Bay where more than 60% of all water utilised is derived from groundwater.
- 3.8.6 Most groundwater is extracted at a relatively shallow depth (less than about 70 metres) with the greatest density of bores located near Ongaonga, the Waipawa River, and between Takapau and Maharakeke. Nearly all groundwater originates from a number of highly mixed (heterogeneous) alluvial aquifers. Underlying these aquifers is a layer of mudstone, sandstone and limestone at a depth of about 150 metres.
- 3.8.7 A number of unconfined and confined aquifers have been identified within the Ruataniwha Plains. About 25% of all groundwater extracted from within the Ruataniwha Plains is derived from the unconfined Central Plains Aquifer. This aquifer lies within the east central portion of the plains and consists of clean sands and gravels with minor silt-bound layers. The aquifer is up to about 25 metres thick.
- 3.8.8 In general, the quality of groundwater within the Ruataniwha Plains alluvial aquifers is high. This quality is predominately in response to clean surface water recharging the alluvial aquifer system.
- 3.8.9 The issues relating to the quality of the Ruataniwha Plains groundwater resource can be summarised as follows:
- (a) Recharge to the deeper confined aquifer is believed to occur from within the Ruahine Ranges, whereas the Recent Terrace and Old Terrace Aquifers are recharged from rivers and streams of the Plains.
 - (b) Unconfined aquifers are vulnerable to contamination.
 - (c) Chief sources of contamination are attributed to agriculture and meat processing industries. Specific sources of contamination include land disposal of wastes, sewage disposal via septic tanks, irrigation, pesticide application, fertiliser application and animal feeding operations.
 - (d) Groundwater contamination of deeper confined aquifers appears unlikely.

Unsewered communities

- 3.8.10 Over recent years the cumulative effects of septic tank discharges from unsewered settlements have created potential health risks. Contamination of groundwater from septic tank discharges occurs not only in the main aquifer systems, but also in coastal settlements. Discussions between the HBRC, territorial authorities, and the community health authority have signalled the need to specifically target problems arising from domestic sewage discharges in these areas.

POLICIES

POL 15 ROLE OF NON-REGULATORY METHODS

- 3.8.11 To use non-regulatory methods, as set out in Chapter 4, in support of regulatory methods for avoiding adverse effects on groundwater quality, including:
- (a) **Liaison with territorial authorities - future development** - Advocating that any future urban residential or urban industrial development in areas of high groundwater contamination vulnerability (particularly within the Heretaunga Plains unconfined aquifer system as shown in Schedule Va) should include reticulated water, sewerage and stormwater systems.
 - (b) **Liaison with territorial authorities – existing on-site sewage problems** – Where existing on-site sewage treatment systems are found to cause degradation of groundwater quality, advocating the introduction of community reticulation and treatment systems as the preferred means of addressing the problem.

- (c) **Liaison with territorial authorities – provision of services** – Advocating that when considering water supply reticulation in small communities, the ability of existing wastewater disposal systems to cope with the increased loadings that will result be taken into account and the need for a reticulated sewerage system to be introduced to be considered.
- (d) **Liaison with territorial authorities – connection to services** – Advocating that where a reticulated sewerage system is readily available, to require future development to connect to it.
- (e) **Liaison with territorial authorities – contaminated sites** - Providing information to territorial authorities regarding sites within their respective area that have been confirmed as being contaminated and advocating that land use activities on such sites be managed appropriately for environmental and health reasons.
- (f) **Education and co-ordination** - Providing education and information regarding sound land use and waste management practices.
- (g) **Encouragement for self-regulation** – Promote and support self-regulation by resource users, including the preparation and adoption of guidelines and codes of practice by resource user groups.

Explanation and Reasons

- 3.8.12 Policy 15 recognises the effects of urban and industrial development, and on-site sewage disposal, on the quality of groundwater in those areas of high contamination vulnerability. This policy seeks to ensure that, where appropriate, future developments are provided with reticulated water, sewerage and stormwater systems, and existing problems are remedied. Policy 15 also recognises the importance of informing landowners and occupiers that some land use activities can adversely affect groundwater quality.

POL 16 REGULATION – DISCHARGES OVER HERETAUNGA PLAINS AND RUATANIWHA PLAINS AQUIFER SYSTEMS

- 3.8.13 To regulate the following activities involving the discharges of contaminants onto or into land over the Heretaunga Plains unconfined aquifer area (as shown in Schedule Va) or Ruataniwha Plains unconfined aquifer area (as shown in Schedule IV) at a rate that may cause contamination of the aquifer systems:
- the storage of stock feed
 - the use of compost, biosolids, and other soil conditioners
 - animal effluent discharge
 - management of solid waste
 - existing domestic sewage disposal systems
 - new domestic sewage disposal systems
 - stormwater discharges
 - discharges to land that may enter water.

Explanation and Reasons

- 3.8.14 Policy 16 provides for the regulation of activities over the Heretaunga Plains and Ruataniwha Plains unconfined aquifers, owing to the very high value of this groundwater and the risk of groundwater contamination. Discharges to land in areas other than the Heretaunga Plains and Ruataniwha Plains unconfined aquifers are permitted in the Plan, subject to compliance with relevant standards/conditions/terms.

POL 17 DECISION-MAKING CRITERIA – ACTIVITIES AFFECTING GROUNDWATER QUALITY

- 3.8.15 To manage the effects of activities that may affect the quality of groundwater in accordance with the following approach:
- (a) To ensure that all activities, particularly discharges of contaminants onto or into land, comply with the environmental guidelines for groundwater quality, and the associated implementation approach, set out in Policies 75 and 76.
 - (b) To encourage discharges of contaminants onto or into land where these are likely to have less adverse effect than discharges into water.

- (c) To consider the effects of the taking of groundwater on the quality of groundwater, including the potential for salt water intrusion.
- (d) To prevent or minimise spills or other breaches of resource consent conditions causing contamination of groundwater, particularly in those areas of high contamination vulnerability for the Heretaunga Plains aquifer system as shown in the DRASTIC map in Schedule V, by requiring the preparation and implementation of site management plans and spill contingency measures for relevant activities.
- (e) To disallow any discharge activity which presents a significant risk of groundwater contamination in those areas of high contamination vulnerability for the Heretaunga Plains aquifer system as shown in the DRASTIC map in Schedule V.

Explanation and Reasons

3.8.16 Policy 17 sets out the overall approach for the management of all activities which may adversely affect groundwater quality.

POL 18 DECISION-MAKING CRITERIA – ON-SITE SEWAGE DISCHARGES

(a) Discharges over the Heretaunga Plains Unconfined Aquifer

3.8.17 For consent applications for on-site sewage discharges over the Heretaunga Plains unconfined aquifer area, to require a treatment and disposal system that meets the following criteria:

- (i) A filtration system which reduces the level of suspended solids to a maximum of 10 g/m³.
- (ii) A land application method which achieves even distribution over the entire field.
- (iii) For discharges of greater than 2 m³/d and/or irregular use, a land application method which has been demonstrated to function with the required discharge volume and/or irregular loading.

3.8.18 For any systems existing at the date of public notification of this Plan which are unable to meet the conditions set out in the rules, compliance with the conditions must be achieved within five years of this Plan provision becoming operative, or this particular provision being beyond legal challenge.

(b) Discharges in areas with a high water table

3.8.19 For consent applications for on-site sewage discharges where the water table is likely to be within 600 mm of the point of discharge at any time, to require a level of treatment and disposal at the point of discharge such that the effluent meets the following criteria:

- (i) A treatment system which reduces the level of faecal coliform bacteria to a maximum of 1000 cfu/100 mls.
- (ii) Where the groundwater is used as a potable water supply, a treatment system which reduces the level of nitrate-nitrogen to a maximum of 30 g/m³.
- (iii) A land application method which achieves both an even distribution and provides at least 450 mm of soil adsorption and absorption processes over the entire field.

3.8.20 For any systems existing at the date of public notification of this Plan which are unable to meet the conditions set out in the rules, compliance with the conditions must be achieved within five years of this Plan provision becoming operative, or this particular provision being beyond legal challenge.

(c) Use of low maintenance systems

3.8.21 To generally encourage the use of low maintenance on-site sewage disposal systems using physical methods of treatment in combination with shallow land application fields achieving even distribution.

(d) **Connections to reticulated systems**

- (i) To require any existing on-site sewage discharge which fails to meet the conditions specified in any rule for existing effluent disposal systems to discharge into a reticulation system in the following situations:
- where the building from which the discharge occurs is connected to a public water supply, or
 - where the property on which the discharge is occurring is zoned for residential activity in an operative District Plan, and
 - a community reticulated sewerage scheme is available.
- (ii) To require any new sewage discharge from a property which is zoned for residential activity to be serviced by a community reticulated sewerage scheme, provided a community scheme is available or can economically be made available, unless it can be demonstrated that individual on-site disposal is the best practicable option.

(e) **Sewage disposal by long-drop method**

- 3.8.22 For on-site sewage discharges using the long-drop method of disposal, to allow these only where the soil infiltration rate is low, groundwater quality will not be affected, and the discharge is of a short-term or temporary nature.

(f) **Assessment of treatment and land application methods**

- 3.8.23 To use the flow chart set out as Figure 6 (in Section 6.6.4) of this Plan as a general guide for assessing the types of treatment and land application methods that may be acceptable for minor discharges that may be permitted under Rules 35 and 37.

Explanation and Reasons

- 3.8.24 Policy 18 sets out additional decision-making criteria specifically in relation to on-site sewage disposal, which establish performance standards that must be met. While the use of on-site systems is preferable to discharging such contaminants directly to surface water, such use may nevertheless result in adverse effects on ground and surface water quality if the treatment systems are not designed or operated properly.
- 3.8.25 In areas where public sewerage systems are available the HBRC advocates connection of properties to those systems to avoid the cumulative adverse effects of wastewater discharges. The policy recognises that land zoned for residential use should not be developed until it is serviced by a community sewerage scheme as opposed to individual on-site systems on small sized properties. Community sewerage schemes may include those provided by the territorial local authority or a communal system set up to cater for a residential subdivision. However, there may be circumstances where a residential property is of sufficient size that deferring development until a connection to a community reticulation scheme becomes available is not warranted. In addition, there may also be circumstances in the region where residential growth is limited so that on-site systems may be able to provide the necessary environmental protection.

POL 19 DECISION-MAKING CRITERIA – EFFECTS OF FRESHWATER PASTURE IRRIGATION ON AGRICULTURAL EFFLUENT DISPOSAL AREAS

- 3.8.26 To minimise the leaching of nutrients to groundwater by ensuring that the combined hydraulic loading rates from agricultural effluent disposal and freshwater pasture irrigation do not exceed the capacity of the soil.

Explanation and Reasons

- 3.8.27 The effect of pasture irrigation can be managed through the resource consent process. Policy 19 indicates HBRC's preferred approach to managing this effect as part of the integrated management of the agricultural effluent disposal process. For the purposes of this policy the capacity of the soil encompasses the soil moisture holding capacity, the infiltration rate and the nutrient absorbing capacity of the pasture.

POL 20 DECISION-MAKING CRITERIA – AGRICULTURAL EFFLUENT DISCHARGES IN SENSITIVE CATCHMENTS

3.8.28 To manage the effects of discharges of agricultural effluent, particularly dairy shed effluent, onto land in sensitive catchments as shown in Schedule VIb in a manner that is in accordance with the objectives and policies of this Plan, and which:

- (a) Takes into account the cumulative effects of the discharges, from all agricultural activity carried out on the same land, by requiring the provision with any resource consent application of a total farm balance of the nutrient inputs, transfers and outputs which demonstrates that the nitrogen leaching potential is minimised.
- (b) Integrates the management of other activities which may have an impact on the effects of the agricultural effluent discharge.

Explanation and Reasons

3.8.29 Policy 20 sets out additional decision-making criteria for discharges of agricultural effluent onto land. This policy recognises the need for integrated management of agricultural effluent in a manner that takes into account not only the effects of the discharge, but also the effects of other activities such as pasture irrigation, stock feeding, and stocking densities.

3.8.30 The policy recognises also that while leaching of nitrogen through the soil to shallow groundwater is not a significant issue in many areas, there are a number of highly sensitive catchments within the region, for which even minor changes in nitrate levels may impact significantly on the state of the resource.

POL 21 DECISION-MAKING CRITERIA - BORE CONSTRUCTION

3.8.31 To ensure that bores are drilled, constructed and maintained in a manner which avoids any contamination or cross-contamination of groundwater aquifers, and which does not allow any seepage or backflow of contaminants into groundwater.

Explanation and Reasons

3.8.32 Policy 21 sets out additional decision-making criteria for bore construction, addressing the need to avoid aquifer cross-contamination, and the ingress of contaminants down the bore.

POL 22 DECISION-MAKING CRITERIA – RISK ASSESSMENT OF CONTAMINATED SITES

- (a) When assessing the risks to environmental and public health through the effects of contaminated sites on groundwater quality the following factors shall be taken into account:
 - (i) the level of contamination in soil and water at the site and the characteristics of the contaminants, such as their mobility
 - (ii) any numerical standards provided by relevant national guidelines
 - (iii) in the absence of relevant national guidelines, numerical standards determined in other internationally recognised guidelines
 - (iv) the current or proposed land use and any restrictions on future land uses of the site
 - (v) the proximity of the site to sensitive ecosystems and the sensitivity of those ecosystems to the contaminants
 - (vi) the possible exposure pathways
 - (vii) the degree and nature of the discharges from the site

- (viii) the geological nature and history of the site.
- (b) Remediation and/or containment of any existing contaminated site will be required to ensure that the final level of contamination is appropriate for the current, proposed or any permitted use of that land.

Explanation and Reasons

3.8.33 Policy 22 sets out additional decision-making criteria for assessing the risk of existing contaminated sites. Any discharges occurring from existing contaminated sites will be controlled through the resource consent process by the HBRC. Where there are no discharges from the site, the territorial authority will address the actual and potential adverse effects of soil contamination through its environmental and public health responsibilities, with assistance from HBRC in terms of information provision.

ANTICIPATED ENVIRONMENTAL RESULT

Anticipated Environmental Result	Indicator	Data Source
No degradation of existing groundwater quality in confined productive aquifers	Nitrate-nitrogen levels Organic and inorganic determinands of significance in NZ Drinking Water Standards <i>E.coli</i> levels Pesticides and herbicides	Ministry of Health Council monitoring

3.9 Groundwater Quantity

ISSUE

- 3.9.1 **The significant adverse effects of groundwater takes on the overall groundwater and surface water resource and existing groundwater users.**

OBJECTIVES

- OBJ 23** The avoidance of any significant adverse effects of water takes on the long-term quantity of groundwater in aquifers and on surface water resources.
- OBJ 24** The avoidance or remedy of any significant adverse effects of water takes on the operation of existing lawful efficient groundwater takes⁸.

Explanation and Reasons

- 3.9.2 Groundwater is a critical resource in Hawke's Bay. Groundwater is the main source of water for Napier, Hastings and the Heretaunga Plains, as well as areas of the Ruataniwha Plains in Central Hawke's Bay. Plentiful supplies of good quality groundwater are therefore essential to sustain irrigation, industrial and domestic water supplies in the region.
- 3.9.3 The Heretaunga Plains aquifer system is the most important groundwater resource in Hawke's Bay. Studies to date have concluded that the overall rate of groundwater abstraction does not exceed the rate of recharge (Dravid and Brown, 1997). Recharge to the main aquifer system is from the Ngaruroro and Tutaekuri Rivers, and direct infiltration of rainfall on the unconfined aquifer. At the time of writing this Plan, the annual volume of water abstracted from the main aquifer system was estimated to be between 60 and 70 million cubic metres, with much more water used during summer than winter (as a result of irrigation). On the basis of existing information the present abstraction rate appears sustainable. Overall piezometric pressures in the confined aquifer have not shown any decline in recent decades, although levels in the unconfined aquifer may have declined slightly over the past 20 years in accordance with climatic trends.
- 3.9.4 However, groundwater use is likely to rise in future, particularly during summer. The main effects of this are likely to be:
- (a) An increase in the amplitude of seasonal fluctuations in aquifer levels, in particular lowering groundwater levels during summer and autumn periods.
 - (b) Greater conflict between groundwater users, where the pumping from one bore lowers groundwater levels in adjacent bores, and
 - (c) A possible reduction in spring flows (i.e. less groundwater would emerge as springs) and consequential potential reduction in water quantities within wetlands, rivers and lakes.
- 3.9.5 The aquifer system largely adjusts through a re-equilibration, rather than a significant, permanent lowering of groundwater levels. Indeed, the groundwater system has adjusted in this way to accommodate past increases in groundwater use. Groundwater level data suggest that the range of seasonal fluctuations in the unconfined aquifer has increased from about 1 m in 1975 to about 2-2.5 m in 1995. Groundwater use is estimated to have increased by 150% in that time. However, the range of seasonal fluctuations in the confined aquifer has not changed as markedly over this time (Dravid and Brown, 1997).
- 3.9.6 While the availability of groundwater is sufficient at present in the main aquifer system, problems are apparent in fringe areas. In the southern and eastern margins of the main aquifer system the availability of groundwater is restricted by a combination of factors: the thinness of aquifers, the variable permeability of aquifers, and the limited hydraulic connection to main recharge channels. As a consequence, seasonal fluctuations in groundwater levels in these areas are in the order of 3 to 5 m (Dravid and Brown, 1997). In recent years, a large number of wells have been drilled along the southern margin of the Heretaunga Plains due to land subdivision and increased need for irrigation water supply. Many old domestic and stock water supply wells along this margin are relatively shallow, and can dry up during summer.
- 3.9.7 Demand for groundwater from the Ruataniwha Plains aquifer system is increasing, particularly as a result of increasing dairying and process cropping in this area. Less is known about the available groundwater resources in this area.

⁸ 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 is screened to minimise drawdown, with a pump capable of drawing water from the base of the bore to the land surface.

POLICIES

POL 23 ROLE OF NON-REGULATORY METHODS

3.9.8 To use non-regulatory methods, as set out in Chapter 4, in support of regulatory methods for avoiding significant adverse effects arising from groundwater takes, in particular:

- (a) **Education and co-ordination** for encouraging efficient use of water, and avoiding wastage of water. Efficient use of water for irrigation purposes will be encouraged by promoting best irrigation management practices that:
- prevent excessive application or drainage
 - prevent conveyance losses
 - accurately schedule irrigation, and
 - minimise evaporation loss.
- (b) **Advocacy with territorial authorities** – Advocating to territorial authorities that, prior to allowing land use activities or subdivisions by way of district plan provisions or the granting of resource consents, they require the assessment of water supply availability from groundwater particularly where the land is located near the fringes of groundwater aquifers, or where aquifers are small in size.
- (c) **Research and investigation** – Subject to funding and technical practicalities the HBRC will undertake investigations into individual water management zones, and any other areas identified as potential water management zones; and to supplement the information gained from water measuring devices in order to recommend the preferred management approach. Any such investigations will include the collation of existing data obtained through resource consent applications and the identification of additional data requirements.

Explanation and Reasons

3.9.9 Policy 23 sets out the role of the HBRC in educating resource users about efficient use of groundwater. It also establishes the importance of territorial authorities considering water availability before allowing land use activities, in particular subdivisions, to establish. The HBRC, with primary responsibility for managing the use of groundwater will provide on-going investigations into the water management zones. In addition it is envisaged that a series of research meters will be used by Council to supplement the information derived from the analysis of data from water measuring devices.

POL 24 REGULATION – WATER ALLOCATION

3.9.10 To manage the taking of groundwater where the adverse effects of that take may be more than minor, and to manage the cumulative adverse effects of small takes where there is concern that demand may put pressure on the groundwater resource.

Explanation and Reasons

3.9.11 Policy 24 does not restrict the abstraction of any water taken for an individual's reasonable domestic needs, nor for stock watering provided such taking does not have adverse effects on the environment, in which case a resource consent will be required. The policy does not restrict the taking and use of water for fire fighting purposes.

POL 25 REGULATION - TRANSFER OF WATER PERMITS

3.9.12 To allow the transferring of water permits between sites within the same aquifer, where the environmental effects of the transfer are minor and where the transfer:

- (a) Will not cause any significant interference with existing lawful takes that make efficient use of the resource.
- (b) Is to a location at which the aquifer has the same or greater aquifer transmissivity and storage characteristics, and

- (c) Will not cause any adverse effects on springs or other surface water resources.

Explanation and Reasons

- 3.9.13 The transfer of water permits enables greater flexibility and efficiency in managing and allocating water resources, and can be an effective way of ensuring water is used where it is most needed. The principal advantage of transferable water permits is that the allocations are not wasted by a permit holder keeping an allocation but not using it, while another user is forced to apply for a new permit.

POL 26 DECISION-MAKING CRITERIA – LOCATION OF NEW BORES

- 3.9.14 To ensure that new bores are located in a position that minimises any interference effects on existing lawful efficient users and HBRC monitoring bores, taking into account:

- (a) The proposed aquifer the new bore is to be completed in.
- (b) The characteristics of the aquifer (such as transmissivity and storativity) which influence the amount and extent of drawdown that may occur as a result of pumping from the proposed bore.
- (c) The depth and purpose of the new bore in relation to existing bores.

Explanation and Reasons

- 3.9.15 Policy 26 aims to minimise, if not prevent, interference with existing lawful efficient uses. The amount and extent of the lowering of the groundwater levels is determined by how fast the water is able to move through the aquifer (the transmissivity), how much water is held within the aquifer (storativity) and how fast the water is to be pumped out of the bore. Consideration needs to be given to these effects at the time the bore is to be drilled. HBRC is also seeking to protect the integrity of its monitoring bores so that groundwater level records are not unnecessarily compromised by interference effects.

POL 27 DECISION-MAKING CRITERIA – WELL AND BORE CONSTRUCTION

- 3.9.16 To encourage the maximisation of well efficiency of water supply wells by managing the following features of well construction:

- depth of well
- well diameter
- screen slot size
- screen length, depth and diameter
- well efficiency.

Explanation and Reasons

- 3.9.17 Well construction and subsequent well maintenance affects water yield. The management of well construction will assist in the sustainable management of the groundwater resource. Through HBRC knowledge of the hydrogeology of a particular geographic area optimal well depth and construction characteristics may be imparted as either technical advice or as a condition on a consent.

POL 28 DECISION-MAKING CRITERIA – EFFECTS ON EXISTING USERS

- 3.9.18 To require applicants to avoid, remedy or mitigate any significant interference of new takes of groundwater on existing lawfully established efficient groundwater takes, including existing efficient takes and uses of groundwater for an individual's reasonable domestic needs⁹ or the reasonable needs of an individual's animals for drinking water or takes for firefighting.

Explanation and Reasons

- 3.9.19 Policy 28 establishes an approach for recognising the rights of existing groundwater users. This policy will only be implemented at the time a resource consent application to take groundwater is made and does not apply retrospectively to any existing consent.

POL 29 DECISION-MAKING CRITERIA – AQUIFER DEWATERING & SALT WATER INTRUSION

⁹ "Reasonable domestic needs" refers to needs associated with occupation of a dwellinghouse. With respect to the taking and use of water for an individual's reasonable domestic needs, as a guideline this should involve the taking and use of up to 15 m³ over any 7 day period per dwellinghouse.

- 3.9.20 To avoid any significant long-term reduction in the groundwater level or piezometric pressure in aquifers, and any landward movement of the seawater/groundwater interface, as a result of groundwater takes.

Explanation and Reasons

- 3.9.21 Policy 29 recognises the importance of avoiding a long-term lowering of groundwater levels, and saltwater intrusion in aquifers near the coastal margin.

POL 30 DECISION-MAKING CRITERIA – MEASUREMENT OF GROUNDWATER ABSTRACTION

- 3.9.22 As a means of assessing compliance with the allocated amount of water, to require the measurement of the amount of water abstracted as a condition of resource consent for the abstraction of groundwater in the following situations:

- (a) All consents for new takes will be required to measure the actual amount of water where the allocation exceeds 2,500 m³/week.
- (b) Upon renewal of a consent for an existing water take, the consent holder will be required to measure the actual amount of water abstracted where the allocation exceeds 5000 m³/week, but in any event will be granted a minimum lead-in time of three years from the date this Plan becomes operative, or this particular provision is beyond legal challenge.
- (c) Where the potential effects of the abstraction include significant interference on other groundwater users within the vicinity, which were identified before that consent was granted, or where there is insufficient information on the source of abstraction to ensure that cumulative effects are addressed.
- (d) Where the water is taken for industrial purposes and provides an indication of the rate of wastewater discharge a water meter is required.

- 3.9.23 The following criteria shall apply to the measurement of abstracted groundwater:

- (a) The method of measurement shall measure the water taken to an accuracy of within plus or minus five per cent; and shall be capable of displaying the amount of water abstracted in units no greater than one cubic metre to enable appropriate records to be kept.
- (b) The method of measurement shall be capable of providing an instantaneous rate of abstraction when abstraction is occurring (this would be met by being able to time a known quantity of water passing through the measuring device).
- (c) Any measurement of the water being abstracted must be capable of having the accuracy assessed, or method certified, by the supplier at the time of installation or commencement of use and evidence of this shall be submitted to the Council prior to the first abstraction.

- 3.9.24 The consent holder or applicant must satisfy the Council that the above criteria can be met through the proposed method of measurement. If this cannot be demonstrated the Council will require the installation of a water meter in order to meet the requirements of this policy.

Any costs of determination of criteria will be borne by the consent holder.

- 3.9.25 Conditions imposed on resource consents will specify the information to be recorded, the frequency of recording and of submitting that information to the Council, and the frequency of accuracy checks. These frequencies will be no more than can be justified for groundwater management purposes.

Explanation and Reasons

- 3.9.26 Policy 30 establishes the circumstances under which consent holders will be required to measure the amount of groundwater taken in the exercising of a consent. While the preferred means of compliance is by way of a water meter the policy is designed to allow for

flexibility of means of measurement in accordance with the set criteria. However the policy also clearly sets out the criteria for the measurement of water abstraction.

3.9.27 In addition to ensuring compliance with resource consents the measurement of groundwater abstraction provides information to assist in the overall management of the groundwater resource. It will increase HBRC's ability to manage the groundwater resource by identifying to both HBRC and the consent holder the level of compliance with the consented take amount. In turn, this will give HBRC a clearer picture of the actual level of abstraction and the impact of abstractions on long-term resource trends. The measurement of water abstraction will not be used as a basis for the charging of water and the HBRC does not have the legal ability to charge for water.

3.9.28 As a general guide only 2,500 m³/week will meet the water requirements of 8 ha of pasture, 11 ha of grapes or stone fruit, 9 ha of apples and 6.5 ha of processed crops. Actual water requirements also depend on location and soil type.

POL 31 DECISION-MAKING CRITERIA - WELL HEAD CONSTRUCTION

3.9.29 To ensure that well head construction on new bores (other than for domestic or stock water supply) provides for the installation of a water measuring device, and/or a backflow prevention device, where necessary.

Explanation and Reasons

3.9.30 Policy 31 aims to minimise the costs of installing a water measuring device by encouraging installation at the time of well head construction.

POL 32 TECHNICAL PROCEDURE - IRRIGATION TAKES

3.9.31 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 soil moisture capacity.

Explanation and Reasons

3.9.32 Policy 32 sets out the technical procedure that the HBRC will use for the allocation of groundwater for irrigation purposes. In essence, the HBRC will allocate groundwater based on crop water requirements during a specific probability of rainfall, adjusted according to local data for rainfall and evapotranspiration rates. 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 (i.e. 1:10 year return period) is reasonable. The one in ten year level of risk means that the groundwater allocated will meet crop water requirements for a one in ten year drought and will exceed the crop requirements in the other nine years on average. The policy 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.

POL 33 TECHNICAL PROCEDURES - GROUNDWATER TAKES WITHIN THE VICINITY OF SURFACE WATER BODIES

3.9.33 To manage the effects of groundwater takes from unconfined or semi-confined aquifers on nearby surface water bodies in the following manner:

(a) Any taking of shallow groundwater within 400 m of a river, lake or wetland as measured from the edge of the bed will be treated as if it were a direct take unless the extent to which the groundwater will deplete water in the surface water body has been assessed using an appropriate scientific procedure in which case the effects on surface water will be assessed on that basis.

(b) Any taking of shallow groundwater beyond 400 m may require an assessment of effects in the river, lake or wetland if the scale of the take, the groundwater flow direction, and the transmissivity and storativity characteristics of the aquifer indicate interaction is likely to occur; in which case it may be treated as if it were a direct take.

Explanation and Reasons

3.9.34 Policy 33 sets out the technical procedure for managing groundwater takes within the vicinity of surface water bodies, recognising that these takes can adversely affect the amount of water in the surface water body. The selected procedure must involve consideration of factors such as the proposed rate, location and depth of the groundwater take, the connection between the aquifer with the surface water body, the groundwater flow direction relative to the surface water body, and the transmission and storage characteristics of the

aquifer. The consequence of identification as a direct surface water take is that the groundwater take may also be subject to cut-off when the surface water body meets its recognised minimum flow.

ANTICIPATED ENVIRONMENTAL RESULTS

Anticipated Environmental Result	Indicator	Data Source
Availability of groundwater for domestic, industrial and primary uses without it being taken at a rate that depletes the resource beyond a sustainable level	Aquifer levels	Council monitoring of groundwater sites
Avoidance of localised interference with other users and of salt water intrusion into groundwater	Number of complaints	Complaints register
Avoidance of adverse effects on surface water bodies	Flow levels in surface water bodies	Minimum flow monitoring

3.10 Surface Water Resources

ISSUE

- 3.10.1 **The potential degradation of the values and uses of rivers, lakes and wetlands in Hawke's Bay as a result of:**
- (a) **The taking, use, damming and diversion of water, which may adversely affect aquatic ecosystems and existing lawfully established resource users, especially during droughts.**
 - (b) **stock access to water bodies and non-point source discharges, which cause contamination of rivers, lakes and wetlands, and degrade their margins.**
 - (c) **Point source discharges which cause contamination of rivers, lakes and wetlands.**

OBJECTIVES - SURFACE WATER QUANTITY

- OBJ 25** The quantity of water in wetlands, rivers and lakes is suitable for sustaining aquatic ecosystems, for achieving other freshwater objectives, and ensuring resource availability for a variety of purposes across the region, while recognising the impact caused by climatic fluctuations in Hawke's Bay.
- OBJ 26** The avoidance of any significant adverse effects of water takes, uses, damming or diversion on lawfully established activities in surface water bodies.

OBJECTIVE - SURFACE WATER QUALITY

- OBJ 27** The water quality in rivers, lakes and wetlands is suitable for sustaining or improving aquatic ecosystems, and for other freshwater objectives identified in accordance with a catchment-based process set out in Policy LW1 and Policy LW2, including contact recreation purposes where appropriate.
- OBJ 27A** Riparian vegetation on the margins of rivers, lakes and wetlands is maintained or enhanced in order to:
- a) maintain biological diversity;
 - b) maintain and enhance water quality and aquatic ecosystems; and
 - c) support the use of surface water resources in accordance with tikanga Māori.

Explanation and Reasons

- 3.10.2 River flows vary continuously, and aquatic biota and human demands on water can cope with this variability most of the time. However, droughts are common in Hawke's Bay owing to the climate of the area (see also Issue 3.12), and can have immense impacts. At the time of writing this Plan, there were approximately 390 resource consents to take and use surface water from rivers and streams in the Hawke's Bay region. In almost all cases the consent holder is subject to a minimum flow restriction. This means that the consent holder must cease taking water from the river or stream once a pre-established minimum flow is reached. The prescribed minimum flow is the flow at which adequate habitat is available for existing aquatic ecosystems under natural conditions. Controlling takes so that flow is not reduced artificially below minimum flow ensures habitat availability is maintained while acknowledging that habitat availability will reduce as a river naturally falls below the minimum flow.
- 3.10.3 The demand for water is rising, particularly as a result of increasing crop and pasture irrigation. If water is taken and used inefficiently, problems during summer droughts are exacerbated. The demand for surface water needs to be managed in a manner which ensures that water availability is maintained and water is allocated fairly, the impact of droughts is minimised, and economic development is not unnecessarily curtailed.
- 3.10.4 With respect to water quality, non-point source discharges are thought to cause a greater impact on water quality than point source discharges. However, isolated problems from point source discharges can arise from activities such as wastewater discharges, sewage outflows and stormwater discharges in urban areas and coastal communities.
- 3.10.5 Non-point source discharges are those discharges that are derived from a non-discrete source, including diffuse run-off from agricultural land use activities and sedimentation from erosion. However, surface water quality in Hawke's Bay is generally good, and the impacts of agricultural land use on water quality are not as pronounced as in many other regions of New Zealand. One exception to this is in relation to bacterial contamination, which is evident in the middle and lower reaches of intensively farmed catchments, and has probably resulted from the runoff of stock faecal matter.

- 3.10.6 The management of riparian margins is one way of addressing non-point source discharges. Riparian management provides shade for waterways, thereby reducing algal growth and maintaining cool water temperatures, which are generally more favourable for aquatic fauna. Riparian vegetation also intercepts sediment and other contaminants, before they enter a waterway. These benefits are most marked for narrow streams, becoming much less significant for wide braided rivers where the path of river flow changes frequently. In addition, fenced riparian margins prevent stock access, thereby limiting bank erosion and direct contamination of waterways from stock. Riparian margins can also provide important areas of indigenous habitat, although if not carefully managed they are at risk from animal pests and weeds. Fencing, planting, and pest and weed control for riparian management require time, money, and an ongoing commitment from landowners.

POLICIES – SURFACE WATER QUANTITY

POL 34 ROLE OF NON-REGULATORY METHODS

- 3.10.7 To use non-regulatory methods, as set out in Chapter 4, in support of regulatory methods for avoiding adverse effects arising from surface water takes, in particular:
- (a) **Education and co-ordination** for encouraging efficient use of water, for example water harvesting, use of storage and consideration of alternative water supply, and avoiding wastage of water (see also Policy 23 with respect to efficient use of water for irrigation purposes). This will include encouraging the establishment of water user groups to facilitate voluntary scheduling or rationing of water takes, particularly during low flow periods.
 - (b) **Advocacy with territorial authorities** – Advocating to territorial authorities that, prior to allowing land use activities or subdivisions by way of district plan provisions or the granting of resource consents, they require an assessment of water supply availability for surface water particularly where the land is located within a small catchment with low annual rainfall and where the geology has a low storage capacity.
 - (c) **Encouragement for self-regulation** – Promote and support self-regulation by resource users, including the preparation and adoption of guidelines and codes of practice by resource user groups.

Explanation and Reasons

- 3.10.8 Policy 34 sets out the role of the HBRC in the education and co-ordination of resource users in respect of encouraging the efficient use of surface water and ways to avoid water wastage. In particular, Policy 34 refers to the potential value of facilitating “water user groups” to enable a degree of self-regulation of their water takes. In keeping with Policy 23, this Policy also establishes the importance of territorial authorities requiring an assessment of water availability before allowing land use activities, in particular subdivisions, especially in water management zones.

POL 35 REGULATION - WATER ALLOCATION

- (a) To manage the taking of water where the effects of that take may be more than minor.
- (b) To manage the cumulative adverse effects of small takes, particularly in catchments:
 - (i) that are located in an area of low annual rainfall
 - (ii) where the geology has a low storage capacity
 - (iii) for which the location is such that there is a high potential for increased use.

Explanation and Reasons

- 3.10.9 This Policy indicates that water takes in these circumstances will be managed and controlled through the resource consent process. Takes which have less than minor adverse effects will be permitted. The catchments described in Policy 35 (b) have been given the term “surface management zones” and are shown in Schedule VIa. Takes for an individual’s reasonable domestic needs and the reasonable needs of an individual’s animals for drinking water are not restricted by the RMA and are therefore not controlled by this policy or the associated rules. However “reasonable domestic needs” is quantified in the Glossary.

POL 36 REGULATION - TRANSFER OF WATER PERMITS FOR RIVERS AND LAKES

- 3.10.10 To encourage the transferring of water permits between sites where the environmental effects of the transfer are minor, particularly in fully allocated stream management zones.

Explanation and Reasons

- 3.10.11 Policy 36 recognises the benefits of transferring water permits and that in many cases there are no adverse effects of the transfer. As noted in relation to Policy 25, the transfer of water permits enables greater flexibility and efficiency in managing and allocating water resources, and can be an effective way of ensuring water is used where it is most needed. The principal advantage of transferable water permits is that the allocations are not wasted by a permit holder keeping an allocation but not using it, while another user is forced to apply for a new permit (or precluded from gaining access to water because the catchment is already fully allocated). Enabling the transfer of permits to take surface water is considered particularly important for catchments that are fully allocated.

POL 37 RESOURCE ALLOCATION - MINIMUM FLOWS & ALLOCATABLE VOLUMES

- (a) To manage takes from those rivers listed in Table 9 of this Plan in accordance with the minimum flows and associated allocatable volumes set out in that table.
- (b) To establish minimum flows and allocatable volumes for additional rivers in accordance with the approach set out in Table 9 or as a result of research demonstrating that lower minimum flows or higher allocatable volumes are sustainable. Council will use the Plan Change procedure of the First Schedule of the RMA to introduce or change these.
- (c) To ensure the protection of aquifer recharge from the effects of minimum flows.

Explanation and Reasons

- 3.10.12 Policy 37 establishes that takes from rivers will be managed in accordance with prescribed minimum flows and upper minimum flows and allocatable volumes. At the time of writing this Plan, the HBRC was in the process of reviewing the minimum flows set out in the former Proposed Regional Water Resources Plan, and establishing new minimum flows and allocatable volumes. Table 9 sets out the established minimum flows and allocatable volumes, and explains the methodology used to establish these. Any new minimum flows, and allocatable volumes established after this Plan has become operative will be added to Table 9 by way of notified changes to this Plan.

POL 38 DECISION-MAKING CRITERIA – EFFECTS OF NEW TAKES

- 3.10.13 To avoid any significant adverse effects of new takes, uses, damming or diversion of water on lawfully established activities in surface water bodies, including any significant adverse effects on takes and uses of water for an individual's reasonable domestic needs¹⁰ or the reasonable needs of an individual's animals for drinking water or takes for firefighting.

Explanation and Reasons

- 3.10.14 Policy 38 recognises that lawfully established resource users have a reasonable expectation that their activity will not be adversely affected by new activities

¹⁰ "Reasonable domestic needs" refers to needs associated with occupation of a dwellinghouse. With respect to the taking and use of water for an individual's reasonable domestic needs, as a guideline this should involve the taking and use of up to 15 m³ over any 7 day period per dwellinghouse.

POL 39 DECISION-MAKING CRITERIA – WATER ALLOCATION

3.10.15 To allocate water from rivers in accordance with the following approach:

- (a) The water requirement for each resource consent applicant will be determined on the basis of reasonable needs and the efficiency of end use, requiring an applicant to determine how much water is required for their activity (for irrigation takes, see also Policy 42).
- (b) Where the demand for water within a stream management zone¹¹ is greater than the allocatable volume as a result of a consent application for a new activity, a consent will not be issued except where it can be considered under (d).
- (c) Where the demand for water within a stream management zone is greater than the allocatable volume as a result of a change to the minimum flow for that stream management zone the HBRC will adopt any or all of the following approaches:
 - (i) Review all consented takes from that water body at the same time.
 - (ii) Give preference to the renewal of existing resource consents, over the granting of new consents where it can be demonstrated that the allocation is still required.
 - (iii) To encourage the establishment of user groups or the seasonal or long-term transfer of water permits in accordance with Policy 34.
 - (iv) Where over-allocation still exists, to reduce the allocation on a pro-rata basis except that where the consent holder has been advised (e.g. in the consent document) that the water allocated may no longer be available for allocation at the time of consent renewal, in which case the consent may not be renewed.
 - (v) To encourage the use of alternative water sources.
- (d) Water may be allocated over and above the allocatable volume, subject to a substantially higher cut-off level than that specified in Table 9 provided that any such additional allocations will not have any adverse effect on other lawfully established activities, nor any other significant adverse environmental effect and assuming allocation is subject to the implementation and/or consideration of (a), (b) and (c).

3.10.16 Applicants seeking water over and above the allocatable volumes will be required to provide a comprehensive assessment of environmental effects to demonstrate that no such effects will occur, including the justification for any other minimum flow that may be proposed as a mitigation measure.

Explanation and Reasons

3.10.17 Policy 39 establishes the overall approach for the allocation of surface water. This policy recognises that the type of water management required for the region's surface water bodies is variable. As such, Policy 39 sets out how the HBRC will manage the allocation of water from rivers under the following scenarios:

- (a) Where the demand for water within the catchment is less than or equal to the allocatable volumes available.
- (b) Where the demand for the water within the catchment is greater than the allocatable volumes available.
- (c) Those periods when water can be allocated over the allocatable volumes (e.g. for water harvesting purposes). The ecological protection of the river, including the maintenance of a natural "flushing" effect is the baseline consideration for any allocations which are made under this scenario.

¹¹ "Stream management zone" refers to the reaches of a river and/or its tributaries governed by a single minimum flow site.

POL 40 TECHNICAL PROCEDURE - MINIMUM FLOWS

3.10.18 For catchments with prescribed minimum flows, to adopt the following strategy:

- (a) Prior to 1 November each year the HBRC will provide public information on the state of surface water resources for the subsequent irrigation season.
- (b) At times when a river is dropping towards its minimum flow, the HBRC will provide information regularly about this fact.
- (c) Thereafter, the HBRC will regularly provide information about the state of the river until it returns to a level at which a breach of the minimum flow is unlikely to occur.
- (d) The HBRC will encourage resource users to voluntarily schedule or ration water takes, where this is feasible to try and prevent the minimum flow being breached.
- (e) The HBRC may apportion, restrict or suspend the taking, use, damming or diversion of water to the extent and in the manner required to ensure that these activities do not cause a breach of the minimum flow.

Explanation and Reasons

3.10.19 Policy 40 sets out the strategy to be used by the HBRC during periods when a river is dropping toward its minimum flow level. The HBRC will provide regular information to resource users on the state of surface water resources, thereby enabling water users to make their own decisions, either individually or collectively, taking responsibility for water use and the management of the surface water body. The HBRC will also encourage resource users to take voluntary measures to reduce, schedule or ration the rate of take. If the water level of the river drops towards its minimum flow, the HBRC may apportion, suspend or restrict takes to ensure that they do not cause a breach in the minimum flow.

POL 41 DECISION-MAKING CRITERIA – MEASUREMENT OF SURFACE WATER ABSTRACTION

3.10.20 As a means of assessing compliance with the allocated amount of water, and of measuring the total volume of water being taken from a river, to require water measuring devices for all resource consents to take water where:

- (a) the river has a defined allocatable volume (as set out in Table 9)
- (b) there is evidence of increasing demand for water from a surface water body for which there is insufficient information to set a minimum flow or allocatable volume, or
- (c) the water is taken for industrial purposes and provides an indication of the rate of wastewater discharge.

3.10.21 The following criteria shall apply to the measurement of abstracted surface water:

- (a) The method of measurement shall measure the water abstracted to an accuracy of within plus or minus five percent; and shall be capable of displaying the amount of water abstracted in units no greater than one cubic metre to enable appropriate records to be kept.
- (b) The method of measurement shall be capable of providing an instantaneous rate of abstraction when abstraction is occurring (this would be met by being able to time a known quantity of water passing through the measuring device).
- (c) Any measurement of the water being abstracted must be capable of having the accuracy assessed, or the method certified, by the supplier at the time of installation or commencement of use and evidence of this shall be submitted to the Council prior to the first abstraction.
- (d) Where the take is from a river listed in Table 9, and the river is approaching minimum flow, Council will require more frequent measurement and provision of information than specified in 3.10.21 (potentially as often as daily).

The consent holder or applicant must satisfy the Council that the above criteria can be met through the proposed method of measurement. If this cannot be demonstrated the Council will require the installation of a water meter in order to meet the requirements of this policy.

Any costs of determination of criteria will be borne by the consent holder.

- 3.10.22 Conditions imposed on resource consents will specify the information to be recorded, the frequency of recording and of submitting that information to the Council, and the frequency of accuracy checks. These frequencies will be no more than can be justified for surface water management purposes, although the frequency can be altered when the river is approaching its minimum flow as specified in 3.10.21 (d).
- 3.10.23 For existing surface water takes this policy will be implemented upon renewal of the consent or within three years of the Plan becoming operative, whichever occurs sooner.

Explanation and Reasons

- 3.10.24 Policy 41 establishes the circumstances under which the measuring of the total volume of water being abstracted is required in relation to surface water takes. It will increase the Council's ability to manage the surface water resources by identifying to both Council and the consent holder the level of compliance with the consented take amount. In turn this will give Council a clearer picture of the actual level of abstraction and the impact of abstractions on long-term resource trends. Telemetry is one option for the submission of information to Council.

POL 42 TECHNICAL PROCEDURE - IRRIGATION TAKES

- 3.10.25 To allocate surface water for irrigation purposes on the basis of actual crop water 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.

Explanation and Reasons

- 3.10.26 Policy 42 sets out the technical procedure that the HBRC will use for the allocation of surface water for irrigation purposes. In essence, the HBRC will allocate water based on crop water requirements during a one in five 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 (i.e.) 1:5 year return period) recognises the need to balance crop water needs against the ability of the surface water body to maintain a flow above the minimum flow and its ability to recover from a low flow situation. The policy 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.

POL 43 TECHNICAL PROCEDURES - GROUNDWATER TAKES WITHIN THE VICINITY OF SURFACE WATER BODIES

- 3.10.27 To manage the effects of groundwater takes from unconfined or semi-confined aquifers on nearby surface water bodies in the following manner:
- (a) Any taking of shallow groundwater within 400 m of a river, lake or wetland as measured from the edge of the bed will be treated as if it were a direct take unless the extent to which the groundwater will deplete water in the surface water body has been assessed using an appropriate scientific procedure in which case the effects on surface water will be assessed on that basis.
 - (b) Any taking of shallow groundwater beyond 400 m may require an assessment of effects in the river, lake or wetland if the scale of the take, the groundwater flow direction, and the transmissivity and storativity characteristics of the aquifer indicate interaction is likely to occur; in which case it may be treated as if it were a direct take.

Explanation and Reasons

- 3.10.28 Policy 43 sets out the technical procedure for managing groundwater takes within the vicinity of surface water bodies, recognising that these takes can adversely affect the amount of water in the surface water body. The selected procedure must involve consideration of factors such as the proposed rate, location and depth of the groundwater take, the connection between the aquifer with the surface water body, the groundwater flow direction relative to the surface water body, and the transmission and storage characteristics of the aquifer.

The consequence of identification as a direct surface water take is that the groundwater take may also be subject to cut-off when the surface water body meets its recognised minimum flow.

POL 44 DECISION-MAKING CRITERIA – AQUIFER RECHARGE

3.10.29 To protect the Heretaunga Plains Aquifer recharge in order to maintain the long-term viability of the aquifers.

Explanation and Reasons

3.10.30 Policy 44 recognises the importance of aquifer recharge to the sustainable management of the Heretaunga Plains aquifer. The establishment of minimum flows on contributing rivers must take into account the need to adequately provide for the recharge of groundwater.

POLICIES – SURFACE WATER QUALITY

DIFFUSE SOURCE DISCHARGES & STOCK ACCESS

POL 45 ROLE OF NON-REGULATORY METHODS

3.10.31 To use non-regulatory methods, as set out in Chapter 4, as well as rules, for addressing the adverse effects of non-point source discharges and stock access to waterways, including:

- (a) **Research and investigation** – In consultation with landowners undertake the identification of priority areas along the margins of rivers, lakes and wetlands, which should be retired in order to provide a buffer against the effects of runoff from land use activities. Priority areas established at the time that this Plan was prepared are set out in Schedule VIII.
- (b) **Economic instruments** - The provision of financial incentives to facilitate the retirement of these riparian areas.
- (c) **Education and co-ordination** - The preparation and distribution of educational material regarding the benefits of retaining, establishing and enhancing appropriate riparian vegetation.

Explanation and Reasons

3.10.32 Policy 45 sets out the role of the HBRC in undertaking research, providing financial incentives and educating resource users as the principal means for addressing the adverse effects of non-point source discharges and stock access to waterways. Policy 45 includes recognition of the importance of providing a buffer along the margins of water bodies against the effects of runoff from land use activities.

POINT SOURCE DISCHARGES

POL 46 ROLE OF NON-REGULATORY METHODS

3.10.33 To use non-regulatory methods, as set out in Chapter 4, in support of regulatory methods for avoiding adverse effects of point source discharges, in particular, providing **education and co-ordination** regarding sound waste management practices.

Explanation and Reasons

3.10.34 Policy 46 recognises the importance of educating resource users as to the effects of point source discharges on the water quality of the region's waterways and encouraging sound waste management practices. This non-regulatory method will be used in conjunction with regulating point source discharges of contaminants in the region.

POL 47 DECISION-MAKING CRITERIA - DISCHARGES

3.10.35 To manage activities affecting the quality of water in wetlands, rivers and lakes in accordance with the environmental guidelines and implementation approaches set out in Chapter 5 of this Plan.

POL 47A Decision-making criteria - Land-based disposal of contaminants

Promote land-based disposal of wastewater, solid waste and other waste products so that:

- a) the adverse effects of contaminants entering surface waterbodies or coastal water are avoided as far as practicable;
- aA) where it is not practicable to avoid any adverse effects of contaminants entering surface waterbodies or coastal water, then adverse effects are remedied or mitigated; and
- b) any disposal of wastewater, solid waste or other waste products to a surface waterbody or coastal water occurs only when it is the best practicable option.

Explanation and Reasons

3.10.36 Policy 47 notes that point source discharges will be managed in accordance with the environmental guidelines for surface water quality previously established in Chapter 5 of this Plan.

POL 48 DECISION-MAKING CRITERIA – BUFFER ZONES: ANIMAL EFFLUENT DISPOSAL

3.10.37 To have regard to the following factors when considering conditions on resource consents for appropriate buffer zone distances between animal effluent disposal areas and surface water bodies or property boundaries:

- (a) The availability of vegetation adjacent to the surface water body to trap any nutrients or other contaminants.
- (b) Values of the receiving water body and downstream water bodies, including wetlands.
- (c) The land use of the adjoining property and the location of any dwellings.
- (d) The slope of the land adjoining the surface water bodies.
- (e) The permeability of the soil in the effluent disposal area.
- (f) The cumulative effects of the discharges, from all agricultural activity carried out on the same land.

Explanation and Reasons

3.10.38 Policy 48 sets out the factors which the Council will have regard to when determining conditions on appropriate buffer zone distances between animal effluent disposal areas and surface water bodies or property boundaries. It acknowledges that there are a range of variable factors which may influence the extent of environmental effects from effluent disposal areas and that minimum buffer zone distances set out as standards and terms may not be the most appropriate means of dealing with such effects.

POL 49 DIVERSION AND DISCHARGE OF STORMWATER

- (a) To permit the diversion and discharge of stormwater from constructed open drainage systems or piped stormwater drainage systems into surface water without the need for a resource consent, subject to conditions in this Plan which are intended to adequately avoid, remedy or mitigate any significant adverse effects.
- (b) To promote mitigation of the cumulative effects of stormwater discharges on water quality where appropriate.

Explanation and Reasons

3.10.39 Policy 49 (a) recognises that the majority of stormwater discharges will only have minor adverse effects and can therefore be allowed as a permitted activity. Policy 49 (b) recognises that practical mitigation measures need to be considered to avoid, remedy or mitigate any cumulative adverse effects of contaminants in stormwater discharges.

ANTICIPATED ENVIRONMENTAL RESULTS

Anticipated Environmental Result	Indicator	Data Source
Maintenance and enhancement of surface water quality at a level which sustains or improves the aquatic ecosystems in the relevant surface water bodies, including wetlands	Physical and biological parameters	Council SER monitoring
Allocation of water at a rate which avoids degradation of the resource, while providing for the needs of the regional community	Flow monitoring	Minimum flow monitoring

3.11 River Bed Gravel Extraction

ISSUE

- 3.11.1 River gravels provide a supply of a valuable resource utilised in a multiplicity of ways by the community. In extracting from rivers the risk of an imbalance between the natural supply of and the rate at which gravel is extracted, and of adverse effects as a consequence of extraction in the river bed needs to be managed.

OBJECTIVES

- OBJ 28** The avoidance of any gravel extraction at a rate which exceeds the rate of natural supply, except in areas where there are stored reserves which may be removed in a controlled manner such that flood protection and river control assets are not compromised.
- OBJ 29** The facilitation of gravel extraction from areas where it is desirable to extract excess gravel for river management purposes and the minimisation of flood risk, or to maintain or protect the functional integrity of existing structures, whilst ensuring that any adverse effects of gravel extraction activities are avoided, remedied or mitigated.
- OBJ 30** The maintenance of the use and values of the beds of rivers and the avoidance of any significant adverse effects on the river bed resulting from the extraction of gravel.

Explanation and Reasons

- 3.11.2 Lowland areas in the Hawke's Bay region have been built up from fluvial deposits and material eroded from the surrounding hill country. This geomorphological process is ongoing and is the principal reason why there is a presence of gravel material within the river beds and banks of Hawke's Bay river systems. The gravel resource is seen as a valuable commodity in the region, particularly for uses such as road construction and maintenance.
- 3.11.3 The gravel resource utilised for extraction exists both within water courses and on adjacent river banks. The volume of the available resource varies considerably over time, and along river systems, as a consequence of flood-induced river bed movements.
- 3.11.4 A review of the current extraction and natural replenishment rates indicates that there is a long-term deficiency of gravel available for use in the Heretaunga Plains area. Gravel from this area is in demand because of its proximity to Napier and Hastings. In areas of lower demand (including sections of the Waipawa and upper Tukituki Rivers, and their tributaries), there is a surplus of gravel. This surplus can contribute to problems in terms of river flood management by elevating river bed levels, thereby reducing the capacity of stopbanks to accommodate flood flows.
- 3.11.5 Gravel availability in the northern part of the Hawke's Bay region is limited by three factors: the remoteness of the source from the areas of high demand, the difficulties of access for extraction, and for the area north of the Mohaka River, the quality of the gravel.
- 3.11.6 The extraction of gravel from a river bed may cause adverse effects on the natural character, river ecology and recreational values of a river. Riffle, pool, and run sequences in rivers may be altered by gravel extraction activities, thereby changing the habitat composition and the relative quality and quantity of different habitat types in a river system. Conversely, natural river processes can return a river bed environment to equilibrium following extraction. In addition dust can be a problem. It can be generated from both the extraction activity, and the movement of vehicles to and from the extraction site. Significant problems can arise where dust blows onto adjacent properties, causing both a nuisance and a potential for economic loss.

POLICIES

POL 50 RESOURCE ALLOCATION - GRAVEL ALLOCATION ASSESSMENT

- 3.11.7 To assess the availability of river bed gravel by:
- (a) Defining both annual and long-term extraction rates for the regional gravel resource for each river bed within the region where major extraction takes place. These rates will be based on regular monitoring of the rate of extraction, and an assessment of the river design profile, supply of gravel to the coast, and supply of gravel from upstream sources (including land use activities).

- (b) Ensuring that as far as practicable, long-term gravel extraction is undertaken at a level consistent with maintaining the rivers close to their design profiles, while maintaining compatibility with other resource management and environmental values, particularly any values and uses identified in accordance with a catchment-based process as set out in Policy LW1 and Policy LW2.

Explanation and Reasons

- 3.11.8 Policy 50 establishes the approach to be taken by the HBRC when assessing the availability of river bed gravel for extraction and determining both annual and longer term levels of gravel allocation. This policy recognises that the quantity of gravel available for extraction from within the region's rivers may fluctuate depending on the rates of supply and the qualities of the individual river. This policy also seeks to ensure that, as far as practicable, long term gravel extraction is undertaken at a level that enables the natural flow and path of the river to be maintained.

POL 51 RESOURCE ALLOCATION - GRAVEL ALLOCATION PROCESS

- 3.11.9 To allocate gravel from river beds in Hawke's Bay generally on an annual basis, in accordance with the following approach:
- (a) Determining by 15 April each year the likely demand for river bed gravel. Gravel extractors will be contacted at the beginning of March each year, and required to provide notice of their requirements for gravel by 15 April. Requests for gravel allocation will be required to specify the proposed end use of the gravel.
 - (b) Carrying out an assessment and allocation process between 15 April and 30 June each year, in accordance with Policy 50.
 - (c) Notifying gravel extractors of their annual allocation by 1 July each year.

Explanation and Reasons

- 3.11.10 Policy 51 establishes the approach to be taken by the HBRC when allocating the gravel reserves of the region's rivers. The HBRC will allocate gravel to resource users on an annual basis, based on the gravel extractors' requirements, the gravel resource determined to be available in accordance with Policy 50, the proposed end use of the gravel, and an assessment of the effects of extraction. Council will determine the appropriate location for sourcing the gravel especially where demand for gravel in a particular location exceeds supply and alternative locations are required.

POL 52 RIVER BED GRAVEL EXTRACTION – MOHAKA RIVER

- 3.11.11 In relation to the Mohaka River, the:
- (a) annual total volume of extraction for the Mohaka River below the Te Hoe junction
 - (b) the location of any extraction sites, and
 - (c) the periods and rates of extraction at each site
- are to be negotiated and agreed to prior to 30 June each year between the Hawke's Bay Regional Council and nominated representatives of Ngati Pahauwera.

Explanation and Reasons

- 3.11.12 Policy 52 implements a recommendation of the Waitangi Tribunal.

POL 53 DECISION-MAKING CRITERIA - RIVER BED GRAVEL EXTRACTION

- 3.11.13 In considering consent applications for the extraction of river bed gravel, to have regard to the following criteria:
- (a) The capability to restore the extraction site upon completion of the extraction operation, and to repair any damage caused to any banks, access roads, fences, gates, or other structures.
 - (b) The avoidance of any contaminants from machinery use entering water bodies.

- (c) The avoidance of any increases in sediment discharge or water turbidity, particularly during the fish spawning period of May to October.
- (d) The continuation of existing fish passage.
- (e) The avoidance of any adverse effects on flood control assets or river protection works.
- (f) The avoidance of any activity that would cause flood control measures or river protection works to be required.
- (g) The avoidance of any offensive or objectionable discharge of dust.
- (h) The end uses of the gravel, in order that high quality gravel is allocated to uses which require such gravel.
- (i) The location of, and potential effect on, any downstream water takes/users.
- (j) The effect on the ecology of the river.
- (k) The extent to and the time over which natural processes will be capable of returning the river bed to a state of equilibrium following extractive activity.

Explanation and Reasons

3.11.14 Policy 53 provides guidance to resource consent applicants and decision makers in respect of applications to undertake gravel extraction within the region's rivers. This policy establishes criteria which the resource consent application will be assessed against. In addition any resource consent application to extract river bed gravel should have regard to Objective 45 and Policy 79 when assessing the adverse effects of any proposed extraction activity.

POL 54 PROBLEM SOLVING APPROACH - INTEGRATION WITH RIVER CONTROL WORKS

3.11.15 To integrate the management of gravel extraction with river control works by:

- (a) Encouraging gravel extraction where there is the potential to minimise flooding or the risk of damage to protection works or essential structures.
- (b) Undertaking specific works to control erosion and encourage gravel movement where appropriate.

Explanation and Reasons

3.11.16 Policy 54 sets out the approach to be taken to integrate the management of gravel extraction with river control works in order to minimise flooding, erosion and the risk of damage to works and essential structures (e.g. bridges). This policy recognises the positive influence that the managed extraction of gravel can have on minimising flood risk and assisting with the overall management of the river.

ANTICIPATED ENVIRONMENTAL RESULT

Anticipated Environmental Result	Indicator	Data Source
Extraction of river bed gravel at a rate that does not exceed its natural replenishment (unless there is an environmental benefit in doing so)	River cross sections	Council data on river profiles

3.12 Natural Hazards

ISSUE

- 3.12.1 **The susceptibility of the region to flooding, droughts, earthquakes, volcanic ash falls, and tsunami, and the potential impact of these on people's safety, property, and economic livelihood.**

OBJECTIVE

- OBJ 31** The avoidance or mitigation of the adverse effects of natural hazards on people's safety, property, and economic livelihood.

Explanation and Reasons

- 3.12.2 Flooding and droughts are the most recurrent natural hazards in Hawke's Bay, but the region also has a history of earthquakes, volcanic ash falls and tsunami. Each of these is briefly discussed below.

Flooding

- 3.12.3 Within Hawke's Bay, there is widespread potential for flooding. Individual rainfall events causing flooding that can range from localised downpours affecting particular catchments, to cyclonic storms causing general flooding over large parts of the region. Considerable flood protection works have been carried out in the region, particularly on the Heretaunga and Ruataniwha Plains. These works have significantly reduced the risk from most flood events. However, very large events exceeding flood protection design standards can be devastating to normally protected areas. Indeed, measures taken to reduce the flood risk, such as river control works and post-disaster relief, can actually increase the catastrophic potential of large floods because they enable an increased occupancy and level of development within flood plains. To be truly effective flood protection works must be undertaken in conjunction with better land use planning, and adequate and timely flood forecasting.

Droughts

- 3.12.4 Droughts are a common occurrence in Hawke's Bay, particularly during El Nino weather patterns, which bring predominantly westerly winds. The orographic effect of the mountain ranges west of Hawke's Bay means that the region receives little rainfall during these times. Hawke's Bay experienced three major droughts during the 1980's - in 1982/83, 1984-86 and 1988/89. These have been followed by two major droughts during the 1990's - in 1994/95 and 1997/98. The regularity of droughts, and the severity of their effects on agriculture, water supplies and aquatic ecosystems, mean that they are a natural phenomenon which must be recognised in the management of land use activities and the environment.

Earthquakes

- 3.12.5 Earthquakes are a significant risk to the Hawke's Bay region, given the regular occurrence of tectonic movement in the area. Although large earthquakes such as the 1931 event occur infrequently, they have a high potential to impact on people and their livelihood. Development in Hawke's Bay has continued with little or no regard to the effects that earthquakes have on different ground conditions. The HBRC has commissioned studies into the risk posed by earthquakes, and the effect of earthquakes on different areas, particularly in relation to liquefaction, ground shaking, subsidence and uplift. This information has been provided to territorial local authorities, in order that they use it in the production of district plans and the establishment of building design standards.

Volcanic Ash

- 3.12.6 There are no volcanoes in Hawke's Bay, but the region is at risk of being blanketed with ash from volcanoes in the Okataina and Taupo volcanic centres. While volcanic eruptions are a relatively infrequent phenomenon, their effects can be devastating, on waterways (affecting quality and channel processes), land use activities, and health.

Tsunami

- 3.12.7 Tsunami (tidal waves) are also a potential natural hazard. A recent tsunami hazard study of the Hawke's Bay region identified three potential types of tsunami that pose a threat to Hawke's Bay:
- (a) Immediate waves generated locally by horizontal ground movements.
 - (b) Seismic seiches generated locally by vertical ground movements.
 - (c) Classical tsunami generated as a local response to a distant major seabed disturbance (sources of seabed disturbances can be submarine slumps, volcanic eruptions and earthquakes).
- 3.12.8 The main threat in Hawke's Bay is from classical tsunami for which an existing international warning agency is likely to give ample warning. Such warning is valuable, however it does little to quantify the scale of impending waves in this region.
- 3.12.9 The information delivered in this study has been used by HBRC to assist with its emergency management planning, and has also been provided to territorial local authorities in the region to assist them with their own civil defence and natural hazard planning initiatives.

POLICIES

POL 55 ROLE OF NON-REGULATORY METHODS

3.12.10 To use non-regulatory methods set out in Chapter 4, as the principal means of addressing hazard avoidance and mitigation, in particular:

- (a) **Liaison with territorial authorities**¹² - To provide information on natural hazard risk to territorial authorities, and advocate that future development is managed in such a way that the risk of exposure to natural hazards is avoided, remedied or mitigated.
- (b) **Works and services** - To provide hazard mitigation measures, in particular flood mitigation measures, where the benefits can be shown to outweigh the costs and the identified beneficiaries can meet the costs.
- (c) **Natural hazard priorities** - To focus both hazard avoidance and mitigation on areas of high human population density as a first priority.

Explanation and Reasons

3.12.11 Policy 55 sets out the role of the HBRC in providing information to territorial authorities, providing works and services where these are cost-effective, and prioritising natural hazard responses as the principal means of addressing natural hazard avoidance and mitigation. This policy recognises the need for an integrated approach by territorial authorities and the HBRC to address land use planning and service provision with the view of minimising the risk and impact of natural hazards. The HBRC will provide hazard mitigation measures (e.g. stopbanks for flooding) where the benefits outweigh the costs, and the costs can be recovered from those who will benefit from the works. Furthermore, the HBRC will, as a first priority, focus hazard avoidance and mitigation on the areas of high human population density (e.g. cities and towns) as these areas are likely to experience significant effects on people's safety and economic livelihood as a result of a natural hazard event.

ANTICIPATED ENVIRONMENTAL RESULTS

Anticipated Environmental Result	Indicator	Data Source
Natural hazard mitigation measures in place to minimise the risk to human safety and the environment from natural hazards	Loss of life and property in a natural hazard event	Emergency services records

¹² Refer to Chapter 8 in this Regional Plan for a description of the respective roles of the HBRC and territorial authorities for the avoidance or mitigation of natural hazards.

3.13 Maintenance and Enhancement of Physical Infrastructure

ISSUE

- 3.13.1 **The sustainable management, including further development, of the physical infrastructure of the region that underpins the economic, cultural, and social wellbeing of the region's people and communities, and provides for their health and safety.**

OBJECTIVES

- OBJ 32** The ongoing operation, maintenance and development of physical infrastructure that supports the economic, social and/or cultural wellbeing of the region's people and communities and provides for their health and safety.
- OBJ 33** Recognition that some infrastructure which is regionally significant has specific locational requirements.
- OBJ 33A** Adverse effects on existing physical infrastructure arising from the location and proximity of sensitive land use activities are avoided or mitigated.
- OBJ 33B** Adverse effects on existing landuse activities arising from the development of physical infrastructure are avoided or mitigated in a manner consistent with Objectives 16, 17, 18, 32 and 33.

Explanation and Reasons

- 3.13.2 Hawke's Bay region had a population of 146,109 people on Census night 2001. The economic, and to some extent social and cultural well being, health and safety of these people, relies on the region being interlinked with the rest of New Zealand and the world. This is achieved through transport and communications systems and through supply of services such as energy which transcends regional boundaries.
- 3.13.3 Land transport integrates different parts of the region, and provides for the movement of goods and people. The region is linked into national road and rail systems. Other important transport infrastructure, the airport and port, are both in the coastal environment and have specific locational requirements. The region does not have any natural harbours, so the port's physical resources, developed over more than a century, are regionally significant. An efficient and convenient location in relation to the region's population and commercial and industrial activity is also essential for the port and airport.
- 3.13.4 Most of this infrastructure relies on the use of the land resource, although the air and sea are also involved. Thus the management of its environmental effect is not directly the responsibility of the Regional Council but is generally a district council matter. However, the regional importance of the physical infrastructure and that its networks frequently cross district boundaries; or, in the case of the region's port that it is located on, the land sea interface; means that there is a regional role in ensuring that it is able to be maintained and enhanced.
- 3.13.5 Energy infrastructure, at regional level, primarily involves the generation and distribution of electricity, but increasingly may involve gas. The ability to maintain and develop the region's energy resources, and to distribute energy to areas within and outside the region, is essential in supporting the region's economic well being.
- 3.13.6 Communication facilities are of growing importance in the 21st century. Communication and the transfer of information is essential in allowing all communities within the region to provide for their individual and collective well being. These facilities can rely less on land-based infrastructure as technology develops, but where land-based infrastructure is required, it may have very specific locational requirements. As a result, it must be recognised that it will not be possible in every situation to avoid or mitigate all adverse effects without affecting the efficiency and effectiveness of the infrastructure.
- 3.13.7 Other infrastructure, such as sewerage systems, water supply and landfills, may involve a regional perspective and joint funding and management by several territorial authorities or other agencies.
- 3.13.8 The region's major industries are largely dependent on production from the region's natural and physical resources, and are integrated economically and physically with transport, energy and communications systems. They represent large investments in physical resources, and can be regarded as part of the region's physical infrastructure.
- 3.13.9 A range of environmental effects may be associated with physical infrastructure. This may include direct use of land and coastal areas and the consequent exclusion of people and other activities from such areas. As much of the infrastructure involves physically connected networks, structures may need to cross rivers and sometimes lakes, wetlands and the sea.
- 3.13.9A Physical infrastructure can often give rise to off-site impacts or nuisance elements which affects surrounding land. It can cause emissions or vibrations which go beyond the boundaries of the site; or activities associated with the land use may create adverse effects on nearby land, such as increased noise or traffic.

- 3.13.9B Reverse sensitivity effects can arise when sensitive activities are introduced near major infrastructure, or new infrastructure is placed near a certain existing land use. For example, a new residential development in close proximity to an airport, or the location of a new highway route through an existing urban area can both cause adverse effects that require careful management to reduce conflict between the activities. This conflict needs to be carefully managed in accordance with Section 3.5 of the Plan.
- 3.13.9C In relation to specific types of strategic infrastructure, National Policy Statements may exist which direct local authorities to deal with reverse sensitivity effects in a certain way when making decisions on regional plans, district plans, and resource consent applications. For example, the NPS on Electricity Transmission requires local authorities to manage activities to avoid reverse sensitivity effects on the National Grid, to the extent reasonably possible. RPS provisions need to be applied in conjunction with any relevant National Policy Statement when considering new activities.

POLICIES

POL 56 ROLE OF NON-REGULATORY METHODS

- 3.13.10 To use non-regulatory methods, as set out in Chapter 4, as the primary means of enabling the development of regionally significant physical infrastructure, in particular through the following:
- (a) **Provision of Information** – Recognising the regional importance of significant infrastructure, and assisting territorial authorities and the regional population, in understanding the importance of this infrastructure and its environmental effects. The Council will hold and, as provided for in the annual Plan, investigate aspects of regional infrastructure, including beneficial and adverse effects, so that common information is available to enable decision-makers under the RMA to make decisions in accordance with the promotion of sustainable management.
 - (b) **Liaison with Territorial Authorities** - Facilitating liaison between territorial authorities, the community and infrastructure agencies, to address and resolve issues that arise in the maintenance and development of infrastructure.

Explanation and Reasons

- 3.10.11 The HBRC is at times the consent authority for activities associated with regional infrastructure, but the primary responsibility is generally with the territorial authority. Thus the role of the Council in achieving objectives is primarily as a source of information and a facilitator of liaison. In some situations HBRC may wish to take an advocacy role to promote regional development on the basis of regional infrastructure. When this is likely, decisions for advocacy will be made on a one off basis and any potential conflicts of interest will be identified and avoided.
- 3.10.11A Also refer to Policies in Chapter 3.5 of the Plan.

3.14 Recognition of Matters of Significance to Iwi/Hapu

- 3.14.1 These objectives and policies are developed from the issues of significance to iwi/hapu identified in sections 1.5 and 1.6 of this Plan.

OBJECTIVE

- OBJ 34** To recognise tikanga Maori values and the contribution they make to sustainable development and the fulfilment of HBRC's role as guardians, as established under the RMA, and tangata whenua roles as kaitiaki, in keeping with Maori culture and traditions.

POLICIES

- POL 57** Where policy is being developed for the management of natural and physical resources the following matters shall be had regard to:

- (a) Where the effects of an activity have minimal or no measurable impact on the state of mauri, the life sustaining capacity of a resource – no or minimal regulation (noa).
- (b) Where the actual or potential effects of an activity on the state of mauri are significant – the activity shall be dealt with on a case-by-case basis according to those effects (rahui).
- (c) Where the impacts of an activity have a severe and irreversible impact upon the state of mauri that activity shall be prohibited (tapu).

- POL 58** To share information on matters of resource management significance to Maori and on processes to address them.

Explanation and Reasons

- 3.14.2 To carry out its obligations under the Act HBRC needs to understand and respect the concept of kaitiakitanga. To achieve this it may be necessary for tangata whenua to share their understanding, knowledge and beliefs as they relate to natural and physical resources. In turn HBRC will undertake to assist Maori in enhancing their knowledge of the resource management process.

OBJECTIVE

- OBJ 35** To consult with Maori in a manner that creates effective resource management outcomes.

POLICIES

- POL 59** Consultation with tangata whenua should be undertaken in a manner that acknowledges Maori values, with the fundamental approach in consultation being "kanohi ki te kanohi" (face to face) or personal contact. Other matters necessary to be exercised are:

- (a) consideration of a consent application not yet finally decided upon
- (b) listening to what others have to say
- (c) considering their responses
- (d) deciding what will be done
- (e) appropriate timing.

- POL 60** To encourage hapu to develop resource management plans, and to use the plan, when recognised by an iwi authority, to assess the incorporation of Maori values in the planning process.
- POL 61** Resource management decisions made subsequent to consultation shall show regard for that consultation.
- POL 62** The following is the recommended approach for consultation with tangata whenua:
- (a) Where the issue is at a macro, region-wide level consultation be with iwi.
 - (b) Where the issue is localised, yet non site-specific, consultation be with hapu.
 - (c) Where the issue is site-specific consultation be with whanau.
- POL 63** Consultation involving iwi or hapu is expected generally to be undertaken on a marae. The place of consultation should be determined as a result of agreement between both parties.

Explanation and Reasons

- 3.14.3 Effective consultation is the best way to determine the relationship between Maori and their taonga and how kaitiakitanga is to be exercised. The policies set out the interpretation by Ngati Kahungunu of what effective consultation means to them. These policies provide applicants with a guide on some of the practical aspects of consultation.

OBJECTIVE

- OBJ 36** To protect and where necessary aid the preservation of waahi tapu (sacred places), and tauranga waka (landings for waka).
- OBJ 37** To protect and where necessary aid the preservation of mahinga kai (food cultivation areas), mahinga mataitai (sea-food gathering places), taonga raranga (plants used for weaving and resources used for traditional crafts) and taonga rongoa (medicinal plants, herbs and resource).

POLICIES

- POL 64** Activities should not have any significant adverse effects on waahi tapu, or tauranga waka.
- POL 65** Activities should not have any significant adverse effects on taonga raranga, mahinga kai or mahinga mataitai.
- POL 66** The importance of coastal, lake, wetlands and river environments and their associated resources to Maori should be recognised in the management of those resources.

Explanation and Reasons

- 3.14.4 These policies require the active consideration of the impacts of proposed activities on the taonga of tangata whenua.