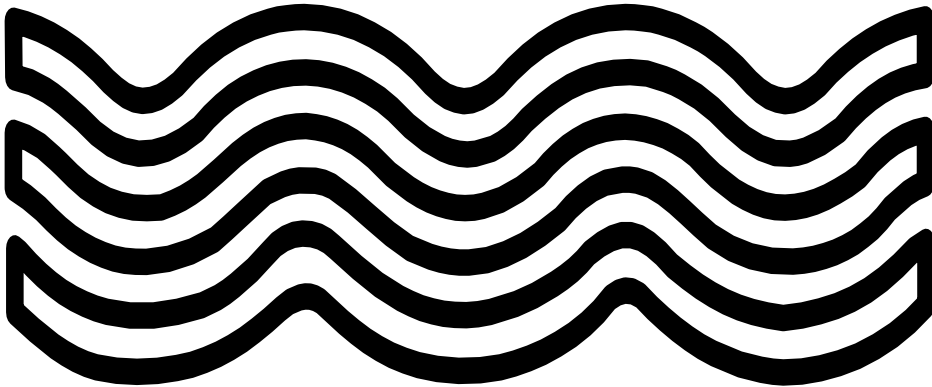


## WATER MANAGEMENT



### 3.0 INTRODUCTION

The Act identifies three categories of water: freshwater, geothermal water and coastal water [refer Glossary]. Freshwater may be subdivided into surface water (lakes, rivers, streams, swamps and wetlands) and groundwater (aquifers and underground streams).

Accordingly, Gisborne's water resources may be categorised as:

- *surface freshwater resources encompassing all rivers, lakes and wetlands within the District.*
- *groundwater resources, most importantly beneath the Poverty Bay Flats but also beneath the coastal flats e.g. Waiapu River and Tolaga Bay flats.*
- *geothermal resources around Te Puia Springs.*
- *coastal water resources [out to the 12 mile limit].*

The Gisborne District Council has primary responsibility for managing the use, development and protection of the region's water resources. Further to Part I, section 5.2 of this Statement, Council has interpreted the requirements of s5(2) of the Act, in relation to water, to mean that:-

- a) water can be used or developed subject to the maintenance of its ability to support life. Ability to support life has a number of dimensions but relates primarily to issues of water quality and quantity, freedom of passage and other habitat characteristics.
- b) the potential of water to meet the reasonably foreseeable needs of future generations will be sustained if water bodies are not polluted, over-allocated or otherwise modified, to the extent that they cannot be used or enjoyed.
- c) subject to the above, water should be managed in a way which ensures that it is available (in quantity and appropriate quality) for meeting a range of consumptive and non-consumptive human needs.

Water management is, consequently, primarily concerned with the issues of quality, quantity and flow and with resolution of conflicts of use and values.

Unlike the situation with the management of land, the management of water has a strong regulatory focus. This is because water is a "common property" resource.

## **WATER MANAGEMENT**

Individuals do not have an automatic right to the use of water; use is treated as a privilege. The Act stipulates that the taking of water and the discharge of contaminants into water are prohibited unless expressly authorised.

The only possible forms of authorisation (apart from the statutory exceptions contained in s14(3) of the RMA) are a resource consent (which must be obtained from Council) or a rule in a regional plan allowing an activity.

In the long term, it is proposed to prepare a series of location-specific regional plans, with rules, to address water quality and water allocation issues (in an integrated way) on a catchment by catchment basis. In the meantime, if a proposed use (e.g. abstraction, discharge, damming, diversion) of water is not authorised by a rule in the Gisborne District Transitional Regional Plan, it will require an application for a resource consent and the application will be considered against the requirements of the Act (particularly s104) and the provisions of this Policy Statement.

### **Concerns of the Tangata Whenua**

Tangata whenua have identified the following matters as being of concern to them with regard to water:

Degradation of water quality due to discharge of human, industrial, farm and horticultural wastes; Any effects on physical and spiritual resources of Maori, such as taiapure, kaimoana, waahi tapu.

Water provides Maori with food and spiritual resources. These resources are directly impacted on when subject to various degrees of pollution especially with regard to the mauri of those resources. Any impact on waters seriously restricts Maori use of them, e.g. polluted food cannot be used for hui with respect to manaaki ki nga manuhiri, forcing tangata whenua to purchase food. Any spiritual impact on the mauri of the water has an impact on waahi tapu, areas used for healing and cleansing, tohi and purification rites. Those consulted want the degradation of tribal waters to be stopped.

### **3.1 UNSATISFACTORY WATER QUALITY IN RIVERS AND COASTAL WATERS**

#### **3.1.1 Explanation**

Water quality is a matter of concern to many of the District's residents.

Water bodies identified as having impaired water quality include:

- many of the District's rivers and some coastal waters, as a result of high sediment load;
- the Taruheru, Turanganui and Waimata Rivers and Waikanae and Wainui Streams [Gisborne City], as a result of stormwater runoff.
- the near shore waters of Poverty Bay, as a result of treated sewage and freezing works effluent, stormwater runoff from Gisborne City and sediment from the Waipaoa River.

## **WATER MANAGEMENT**

Poor water quality may reduce the uses that can be made of water and may adversely affect the life-support capacity and productivity of aquatic ecosystems.

High sediment loads in rivers are directly linked to the issue of accelerated erosion. Elevated sediment levels in rivers have a number of adverse effects on river ecology, fisheries values, flood damage, water supplies and recreational, aesthetic and cultural values. Excess sediment entering coastal waters from rivers may smother marine life and mahinga maataitai (traditional food gathering areas) and adversely affect aesthetic values and fisheries production.

### **3.1.2 Objectives**

1. Reduction of the sediment load in rivers arising from land use practises within the Gisborne District.
2. Improvement of the water quality in the rivers and streams draining Gisborne City and the near shore waters of Poverty Bay where appropriate.
3. Recognition of the Mauri of waters and restoration of Mauri of degraded waters.

### **3.1.3 Policies**

1. To develop and implement a range of land management measures that improve the water quality by reducing sediment entering waterways.

2. To promote the beneficial outcomes of more sensitive management of riparian margins and, where appropriate, to protect or enhance riparian vegetation.
3. To reduce contaminant levels in urban stormwater discharges.
4. To establish maintain, and where appropriate enhance water quality standards for the coastal environment of Poverty Bay.
5. To improve the standard of treatment of Gisborne City sewage.
6. To take into account cultural and spiritual values, the Mana and Mauri of water, when defining minimum water quality standards, considering treatment options, and processing applications for water and discharge permits.
7. To provide for the maintenance and future development of essential public services such as network utility operations, where these activities meet section 5(2)(a)(b)&(c) of the RMA 1991.

### **3.1.4 Methods of Implementation**

The Gisborne District Council will:-

1. Implement the land management methods outlined in Part 2 Issue 2.1 of this Statement (policy 1).
2. Implement the methods aimed at riparian strip management outlined in Part 2 Issue 2.6 of this Statement (policy 2). (see also 3.3.3)
3. Complete a programme of progressively upgrading City sewage and stormwater systems.

## **WATER MANAGEMENT**

4. Initiate an education programme to provide awareness of the potential adverse effects of the disposal of contaminants into stormwater drains, promote alternative means of disposing of liquid wastes (policy 3).
5. Investigate the use of retention lagoons and/or artificial wetlands to promote the “clean-up” of stormwater discharges (policy 3).
6. Review the existing water classification of Poverty Bay, taking into account the provisions of the Resource Management Act 1991 and the standards recommended in the Australian and New Zealand Environment and Conservation Committee’s Water Quality Guidelines and in the Department of Health’s Guidelines for Microbiological Water Quality, and incorporate the results of this review into proposals in the Regional Coastal Plan to be released for public comment by July 1994. (Policy 4)
7. Maintain or expand the existing programme of water quality and shellfish monitoring in Poverty Bay (policy 4; see also monitoring below).
8. Complete an investigation of options for improving the standard of treatment of Gisborne City’s sewage, including land based disposal, by 1995 (policy 6), and thereafter implementation of the best option.
9. Implement trade-waste by-laws by 1995 (policy 5).
10. Consult with Maori to ascertain the nature of the cultural and spiritual values that they hold in relation to specific water bodies and formalise an ongoing consultation process (policy 6).

11. Review all existing permits to discharge a contaminant into water in the coastal environment once the Regional Coastal Environment Plan becomes operative and if any discharge does not comply with any standards established in the plan then steps will be taken to review the conditions of the permit.

### **3.1.5 Reasons for Objectives, Policies and Methods**

The objectives address the water quality issues of immediate concern to the people of the District.

Objective 3 relates to the Council’s responsibility to recognise and provide for the relationship of Maori and their culture with water and other taonga [s6(e)]. the Mauri (or life force) is a spiritual value of water. All water has varying degrees of Mauri, determined by the natural quality of the water and/or historical events or legends associated with the location. This value can be lowered by inappropriate use or contamination, pollution by human waste being the most offensive of all forms of contamination.

The reasons for policy 1 and 2 are explained in other sections of this Statement [refer Part 2 Issues 2.1 and 2.6.]. Council recognises the role that forestry can play in improving water quality in the Districts rivers.

Policy 3 is aimed primarily at addressing the problem of people illegally disposing of contaminants to stormwater drains. It also covers the option of constructing stormwater retention ponds and/or artificial wetlands to provide a measure of treatment for urban stormwater prior to discharge.

## WATER MANAGEMENT

Policy 4 recognises the desirability of reviewing the current water quality classification standards for Poverty Bay taking into account the requirements of the Resource Management Act 1991, including its water classification provisions. [Note: the existing classification was established under the Water and Soil Conservation Act 1967]. It also recognises that Policy 5.1.1 of the New Zealand Coastal Policy Statement requires that the Regional Policy Statement for the Gisborne District should address water quality enhancement. This is provided for in Policy 4 in so far as the Gisborne District Council is able to enhance water quality in Poverty Bay, for example by improving city sewerage treatment practices (policy 6), recognising that there is very little that can be done about the major river systems that contribute to the Bay's poor water quality. Other Policies in the Regional Policy Statement associated with land use may address these issues over time.

Policy 5 recognises the contribution Gisborne City sewage makes to poor water quality in Poverty Bay.

Policy 6 reflects Council's statutory obligation towards Maori, referred to in relation to the reason for objective 3, above.

The methods outlined above are considered to represent practical steps that the Council can take to achieve the objectives and implement the foregoing policies.

The reasons for methods 1 and 2 are outlined elsewhere in this Statement.

Methods 3 and 4 are seen as practical ways of addressing the stormwater contamination issue.

Methods 5, 6, and 7 are necessary because of changing public attitudes towards the use of water for effluent disposal, [particularly sewage disposal], the new requirements of the Resource Management Act and developing scientific understanding of the relationship between water quality and shellfish quality standards and public health.

Method 8 is necessary to establish a user-pays basis for waste treatment and to provide an incentive for industry to treat and recover wastes and to minimise the quantity of contaminants discharged to sewers.

Method 9 is necessary to give effect to the requirements of the Act and to meet the needs of tangata whenua.

### **Alternatives considered**

Alternatives to policies (1) and (2) are discussed elsewhere in this Statement. Policy (3) is a practical policy, relating to Council's service delivery function, which can be pursued to progressively reduce contaminants in urban stormwater discharges. The alternative is to do nothing. The alternative to policy 4 is to set no standards for Poverty Bay water and to treat each discharge proposals or permit renewals on an ad hoc basis.

Such an approach could lead to inequities and/or threats to human health.

## **WATER MANAGEMENT**

The alternative to policy 5 is for the District Council to breach the conditions on the discharge consent issued by the Minister of Conservation. The alternative to policy 6 is to ignore Council's statutory obligations under the Act.

### **3.1.6 Integrated Management**

This issue relates to other issues discussed in Part 2 of this Statement, in particular:

3.3 Point source discharges.

3.4 Diffuse [non-point] sources of contamination.

### **3.1.7 Environmental Results Anticipated**

1. Less stress on freshwater and marine ecosystems, enhancement of life-support capacity.
2. Rehabilitation of mahinga maataitai and increased fisheries production in the long term.
3. Improved water quality in Taruheru, Turanganui and Waikanae streams and in Poverty Bay.
4. People able to swim in, and, take shellfish from, Poverty Bay waters without risk to health and safety. Improved tourism image.
5. Restoration of Mauri.

### **3.1.8 Monitoring**

Council will continue the monthly programme of sediment sampling and rating of rivers as a means of detecting gross changes in

sediment loads. Periodic profiling at rivers will also yield information on sediment transport (aggradation and degradation trends).

Council will continue to monitor water quality at selected locations in Poverty Bay. Monitoring currently focuses on the Gisborne District Council and Weddell Kaiti outfalls with additional sites at the Poverty bay beaches and Wherowhero lagoon (an important kaimoana gathering area for tangata whenua).

### **3.2 POINT-SOURCE DISCHARGES HAVE A POTENTIAL TO ADVERSELY EFFECT THE QUALITY OF WATER IN THE RECEIVING ENVIRONMENT BUT CAN FREQUENTLY BE CONTROLLED**

#### **3.2.1 Explanation**

The Gisborne District Council has a statutory responsibility to control the discharge of contaminants into water, under s30(1) (f) of the Act.

Contaminants include any substance which, when discharged into water, changes, or is likely to change, the physical, chemical or biological condition of the water.

Point-source discharges of contaminants emanate from a single (usually controllable) source. Examples include industrial discharges, sewage discharges, stormwater discharges, landfill leachates, dairy and piggery effluents, septic tanks and spills of toxic or hazardous substances.

## **WATER MANAGEMENT**

### **3.2.2 Objective**

To avoid, mitigate or remedy the adverse effects of point-source discharges on receiving waters.

### **3.2.3 Policies**

#### **Protection of Existing or Potential Future Uses**

1. To endeavour to ensure that the effects of any contaminants contained in point-source discharges are such that they:
  - a) do not unduly impact on the receiving environment; and
  - b) do not reduce, after reasonable mixing, the quality of the receiving water below any standards established in any plan for that water.

#### **Matters To Be Taken Into Account When Assessing Discharge Proposals**

2. When considering proposals or applications to discharge contaminants directly to water, matters to be taken into account include:
  - a) the total contaminant load of the effluent [composition/flow rate];
  - b) the assimilative capacity [including available dilution and dispersal] of the water body and existing water quality;
  - c) the need to safeguard the life-support capacity of the water body;
  - d) actual or potential uses of the water body and the degree to which the needs of other water users are or may be compromised;

- e) scenic, aesthetic, amenity and recreational values including fisheries values and the habitat of trout and indigenous fish;
- f) allowance for a reasonable mixing zone;
- g) the potential for bio-accumulative or synergistic effects;
- h) the actual or potential risk to human and animal health from the discharge;
- i) measures to reduce the quantity of contaminants to be discharged;
- j) the cultural and spiritual values of tangata whenua, and
- k) the use of the best practicable option for the treatment and disposal of contaminants including, in the case of human sewage waste water, the use of land disposal or wetland treatment.

#### **Minimising the Risk of Contaminating Water bodies as a Result of Spills of Toxic or Hazardous Substances**

3. To ensure that contingency plans and other measures to reduce the risk, and possible effects of, any spill event are adopted at all sites where potential contaminants are gathered for storage or disposal.

#### **Stormwater**

4. To identify areas where urban stormwater is having unacceptable effects on natural water, and to develop the management systems necessary to overcome these problems.

## **WATER MANAGEMENT**

### **3.2.4 Methods of Implementation**

Gisborne District Council will:-

1. Require resource consents for all point source discharges to water, land or groundwater not allowed for in the Gisborne Transitional Regional Plan or in other regional plans. Conditions will be attached to resource consents, as appropriate.
2. Assess the efficacy of establishing water quality classifications for all or some of the Region's waters, as a basis for maintaining or restoring water quality at/to a standard suitable for desired uses.
3. Require applicants for significant discharges to undertake a comprehensive assessment of effects, taking into account the matters set out in policy 2.
4. Require all applicants for a discharge permit to demonstrate that the quantity of contaminants has been minimised by the proposed treatment method.
5. Continue to implement, administer and monitor rules and restrictions contained in the Gisborne Transitional Regional Plan regarding the discharge of septic tank effluents, unpolluted stormwater and drainage, and the discharge of weedicides from drain maintenance, until such time as these provisions are replaced by the provisions of new regional plans.
6. Develop (in association with industry and professional groups and in consultation with affected parties) guidelines and standards, where necessary, for the following activities.
  - *stormwater runoff and spills*

- *subdivision and mass earthworks*
  - *on-site sewage treatment and disposal*
  - *installation of underground storage tanks*
  - *farm waste disposal*
  - *mining and aggregate extraction*
7. Include in the Regional Coastal Plan objectives, policies and methods to avoid mitigate or remedy the adverse effects of point-source discharges of contaminants into the coastal marine area.
  8. Include in the Regional Waste Management and Hazardous Substances Plan objectives, policies and methods to avoid mitigate or remedy the adverse effects of point-source discharges of contaminants into waters.
  9. Provide information and advice to the public, industry and land users on the requirement for, and proper handling of, waste discharges.
  10. Encourage all stockyard, and stock truck depots and associated rural industries to install and maintain appropriate on-site treatment and disposal systems for agricultural wastes.
  11. Promote the development and use of clean production technologies for industrial and agricultural activities.
  12. Require the owners of all major facilities for storing potentially hazardous substances [contaminants] to prepare and adopt a contingency response plan to recognised standards, approved by the Council, for dealing with unauthorised discharges and spills.

## **WATER MANAGEMENT**

13. Identify areas where there is a significant risk of spills and formulate general response plans for the area.
14. Prepare a regional oil spill contingency plan.
15. Maintain and deploy, as required, spill response equipment.
16. Investigate the causes and consequences of unauthorised discharges and fully utilise the enforcement provision of the Act where appropriate.
17. Maintain an unauthorised incident register and publicly record the occurrence of unauthorised discharge events.

### **3.2.5 Reasons for Objectives, Policies and Methods**

The objective reflects a statutory responsibility.

Policy 1 is based on the premise that, as point-source discharges are largely controllable, it is reasonable to adopt the position that, after reasonable mixing, the effects of any discharge should not render a water body unsuitable for other uses of the receiving water. In this policy, the word “use” includes any values which the community may attach to the water, including aesthetic or cultural values. The classification of water [i.e. establishment of quality standards] is the principal means by which the community formalises its desired use(s) of a water body. A discharge should not lower the quality of the water below any classification or standards set for it in a plan.

Effluent disposal is a legitimate use of water under the Act, subject to safeguarding the life-support capacity of the receiving water and to meeting the requirements of established standards. Discharges

should not result in a significant adverse effect on aquatic life, after reasonable mixing. The Act does not define reasonable mixing.

Policy 2 sets out matters deemed to be relevant to the consideration of discharge proposals, consistent with the requirements and provisions of the Act. The policy does not prevent other matters being considered. In addition to these requirements, any discharge for which a resource consent is granted by the Council must, after reasonable mixing, comply with criteria established by the Act s107(1). These criteria establish a set of statutory minimum water quality standards that apply irrespective of whether a discharge is permitted as of right or controlled in some way.

Policy 3 places the onus on persons responsible for storing potential contaminants to take all necessary steps to reduce the risk of a spill, prepare contingency plans for the eventuality of a spill, and to ensure that any spills are contained and prevented from entering surface or ground waters.

The Act requires point-source discharges to be controlled (s15). However, discretion can be exercised as to the extent to which regulation is used to achieve this. At this stage,

Council has no plans to produce a [district-wide] regional plan for water quality management.

## WATER MANAGEMENT

Consequently, proposals for discharge into natural waters, providing they are not low-impact discharges authorised by the “general authorisations” in the Transitional Regional Plan, will require a resource consent application which will be assessed against the requirements of the Act and the provisions of this Statement (method 1).

The Act provides a set of water classifications [Third Schedule], but Council may propose more stringent standards if it wishes [s69]. Classifications enable standards to be established below which discharges may not reduce the quality of receiving water after reasonable mixing (method 2).

Contaminant minimisation reduces the potential for adverse effects and results in lesser use of assimilative capacity. Unless included in a rule in a regional plan, the adoption of the best practicable option BPO is not a mandatory requirement. Other alternatives to the BPO must be considered and the requirements of s70 of the Act met. However, applicants will be encouraged to adopt the BPO (method 4).

Rules contained in the Gisborne Transitional Regional Plan, a “carry over” of the s22 general authorisation provisions of the Water and Soil Conservation Act 1967, allow certain discharges adjudged to have a minor or inconsequential effect on receiving waters to occur without a resource consent (method 5).

In some cases, non statutory guidelines and standards, coupled with monitoring, enable a sufficient level of control to be established over

activities [method 6]. Guidelines are useful as an educational tool and where ongoing maintenance of systems (.e.g. on-site sewage systems) is required. If an adequate level of control is not achieved, it may be necessary in the future to incorporate the guidelines and associated standards as rules in regional plans (method 6).

Preparation of the mandatory regional coastal plan provides an opportunity to bring down more detailed provisions for controlling discharges into the coastal marine area (method 7).

The provision of information and advice is seen as essential if Council is to receive the full co-operation and assistance of the public and dischargers in its efforts to maintain and improve water quality within the District (methods 8, 9, 10).

The preparation of a contingency response plan is seen as a logical extension of the duty of the owners of storage facilities to avoid or mitigate the adverse effects of spills (refer s17 of RMA) (method 11).

Council is required to prepare a regional oil spill contingency plan and to maintain and deploy spill response equipment, by the Maritime Safety Act 1993 (method 13, 14).

The public has the right to know the identity of polluters (method 15).

## **WATER MANAGEMENT**

### **Alternatives considered**

The principal alternative to the above policies and methods of implementation is to rely (solely) on the statutory consent granting responsibilities of Council to minimise the effects of the discharge of contaminants to water. This approach would overlook the benefits of education, advocacy and industry self-regulation.

### **3.2.6 Integrated Management**

This issue relates to other issues discussed in Part 2 of this Statement, in particular:

3.2 Unsatisfactory water quality in rivers and coastal waters.

6.0 Coastal management.

8.0 Waste management

8.7 Hazardous substances.

### **3.2.7 Environmental Results Anticipated**

Improvement in water quality and instream habitat.

Enhanced scenic, aesthetic, recreational and Maori cultural values.

Reduction in costs and adverse effects for water users.

Reduction in the risk, incidence and magnitude of spill events.

### **3.2.8 Monitoring**

Council will monitor, or require the monitoring of :

- a) the effects of point source discharges on receiving waters, and
- b) compliance of discharges with conditions on discharge permits.

In accordance with the provisions of the Resource Management Act 1991.

### **3.3 DIFFUSE (NON POINT) DISCHARGES ARE FREQUENTLY A MAJOR SOURCE OF CONTAMINATION OF RECEIVING WATERS**

#### **3.3.1 Explanation**

Non-point or diffuse source contamination of surface waters and groundwater arises as a result of the runoff of sediment, nutrient, agricultural chemicals (e.g. herbicides, pesticides) and stock-derived faecal coliform bacteria, from the land. They can be more difficult to control than point source discharges.

The runoff of sediment [refer also issue 3.2 above], nutrients and organic material represents a loss to the productivity of the land and a potential threat to the sustainability of certain land uses, particularly in the hill country where soils are naturally thinner and losses potentially higher as a result of slope and climatic factors.

Contaminants derived from diffuse sources have a number of adverse effects on receiving waters including abrasive or smothering effects on aquatic life, excessive algal growth (nutrient enrichment), toxicity (pesticides, herbicides), aesthetic and public health effects (coliform bacteria).

Council has the authority to control land use for the purpose of maintaining or enhancing the quality of natural waters [S30(1) (c), RMA].

## **WATER MANAGEMENT**

### **3.3.2 Objective**

1. To avoid, mitigate or remedy the adverse effects on water quality and aquatic ecosystems of diffuse-source runoff of sediment, nutrient or other contaminants from the land.

### **3.3.3 Policies**

#### **1. Land Use And Management Practices**

To promote land use practices which reduce adverse effects on water quality, including:

- *the application of the correct types and quantity of fertiliser;*
- *the proper use of agrichemicals;*
- *land development and restoration of disturbed land to reduce diffuse source discharge of contaminants to water;*
- *stock management procedures to prevent excessive stock entry to waterbodies and their margins and reduce accelerated erosion from overgrazing; and*
- *land management practices, including the discharge of contaminants to land, that avoid or reduce contamination of groundwater aquifers.*
- *forestry management practices including harvesting where temporary accelerated soil erosion may occur.*

#### **2. Management Of Riparian Margins**

- a) To retain and enhance, where appropriate, the vegetation along riparian margins of the Region's lakes, rivers and

streams with encouragement given to indigenous planting and to promote the retirement and planting of riparian margins where appropriate.

Council recognises that it may be impractical or inappropriate to retain vegetation along riparian margins:

- *at the foot of steep eroding gullies;*
- *where farmers rely on stock access to water bodies;*
- *where the cost of fencing would be prohibitive"*

Council also recognises that where the felling of plantation forest trees down hill cannot be practicably avoided, damage to the vegetation along the riparian margins may occur.

- b) In determining reaches of rivers or lakes for priority action [re riparian management initiatives], regard shall be had to the following criteria:

- *the matters referred to in (a) above.*
- *existing degraded water quality, including high water temperature, suspended solids, and nitrate and reactive dissolved phosphate levels;*
- *existing degraded habitat quality, including instream habitat and the extent of loss of existing vegetation;*
- *the intensity of land uses, their proximity to watercourses, the slope of the land, soil characteristics and the actual or potential contamination from diffuse sources;*

## **WATER MANAGEMENT**

- *the actual or potential use of water for community, industrial and domestic water supplies;*
- *spiritual and cultural values and customary uses of tangata whenua;*
- *access to actual or potential scenic, amenity and recreational values including fishery values and the habitat of trout; and*
- *actual or likely conflicts among competing water uses and values and the potential for riparian management to reduce those conflicts*

3. When preparing plans or initiating management action, priority will be afforded to those parts of catchments contributing to the highest load of diffuse source contaminants (including sediment).

### **3.3.4 Methods of Implementation**

The Gisborne District Council will:

1. Identify land-based activities which contribute to the run-off, or infiltration into groundwater, of contaminants and encourage landowners, via the provision of advice, to adopt management practices, which minimise such runoff or infiltration. (see also 8.8)
2. Implement a range of land management measures aimed at reducing the rate of erosion and rehabilitating eroded land.
3. Encourage the preparation of waste management codes of practice by the industries that dispose of liquid and/or solid wastes to land.

4. Discuss with manufacturers and suppliers of agrichemicals and other chemicals, the strengthening of the education and information provision role played by them, with a view to minimising the potential effects of spray application on water quality.
5. Include in the revised District Plan appropriate policies, rules, guidelines any other information to avoid, remedy or mitigate the adverse effects of land use activities and management practices on water quality.
6. Identify waterways suffering from the effects of non-point source pollution and investigate the potential of riparian management to mitigate these effects.
7. Promote the protection and planting of riparian margins through advocacy and advice to landowners and to agencies acting under other legislation and through Councils operational soil conservation activities.
8. Include in regional and district plans, and resource consents, appropriate rules [including rules for the creation of esplanade reserves and esplanade strips on subdivision] or conditions for the maintenance or enhancement of riparian vegetation.

### **3.3.5 Reasons for Objectives, Policies and Methods**

The run off of contaminants from the land is known to cause a range of on-site and downstream adverse effects (see above). In Gisborne, the most significant off-site effects relate to the impact of sediment run-off [refer issue 3.2 above].

## **WATER MANAGEMENT**

Policy 1 reflects the Council's desire, in the first instance, to encourage landusers to adopt sound land management practices. However, as a unitary authority, Council has the authority to both control the use of land for the purpose of monitoring or enhancing the quality of water in water bodies and coastal water [s30 (1) (c)], and to implement methods to achieve integrated management of the effects of the use, development or protection of land [s31(b)]. Council therefore has the ability to control or regulate land use practices if necessary. "Use" includes the deposit of any substance on the land or any disturbance of the land [s9 (4) (b)].

Riparian strips are a recognised means of preventing or minimising the run-off of contaminants from a range of land use activities. They also have other beneficial effects including the stabilisation of stream banks, the provision of shade for fish and organic input to aquatic food chains. Policy 2 aims to establish the principle of managing riparian margins, notwithstanding the practical difficulty and doubtful benefit of implementing the policy in some situations. The latter include steep eroding gullies and situations where farmers rely on stock access to waterways.

Nevertheless, Council consider that there will be situations where riparian management can, and should, be implemented to the advantage of individual landowners and the community generally.

The methods outlined above are practical, low cost, steps which the Council can take to address the issue.

### **Alternatives considered**

The principal alternative to these policies and methods, relating to land use and management practices, is to take a more restrictive range of actions or to take no action in this area. This would be to deny the reality that diffuse source contamination is the primary cause of water quality degradation in the Gisborne District.

The principal alternative to the methods regarding riparian management is to rely solely on the provisions of the Act for the creation of esplanade reserves and esplanade strips on subdivision and on rules in regional or district plans to prohibit inappropriate land uses along river and stream margins. This approach would overlook the benefits of education, advocacy and promotion, in dealing with diffuse source contamination. In many instances, regulatory control through rules and consents is not practical because of technical and administrative difficulties and costs.

### **3.3.6 Integrated Mangement**

This issue relates to other issues discussed in Part 2 of this Statement, in particular:

- 2.1 Rehabilitation of eroded land.
- 2.6 Preservation of areas of significant natural character
- 2.7 Public access.
- 8.0 Waste management.
- 8.7 Hazardous substances.

## **WATER MANAGEMENT**

### **3.3.7 Environmental Results Anticipated**

1. Improvement in water quality and instream habitat
2. Enhanced scenic, amenity, landscape and recreational values and spiritual and cultural values of tangata whenua
3. Reduced stream bank erosion.

### **3.3.8 Monitoring**

Council will continue to monitor the water quality of selected rivers, streams and lakes within the district to detect changes in water quality as a result of diffuse source contaminants.

### **3.4 DEMAND FOR THE USE AND PROTECTION OF SURFACE AND GROUNDWATER RESOURCES OFTEN OCCURS AT TIMES WHEN THE SUPPLY OF THOSE SAME RESOURCES IS LOW**

#### **3.4.1 Explanation**

There are a number of competing demands for use of the District's freshwater resources, including demand for consumptive uses [e.g. domestic and industrial water supply, irrigation, stock water] and "instream" uses [e.g. recreation, habitat/ecosystem maintenance, and maintenance of cultural and aesthetic values].

There is a need to ensure that the available resource is allocated equitably, particularly in the case of water bodies subject to the greatest demand for consumptive uses e.g. the Waipaoa and Te Arai rivers.

### **3.4.2 Objectives**

1. Management of the quantity of water in streams and rivers so that it is available, on an equitable basis, for a range of beneficial consumptive uses and for the protection of instream uses and values.
2. Management of the use and allocation of groundwater so that it is not depleted in the long term.

### **3.4.3 Policies**

1. To allocate surface water for consumptive uses subject to:
  - *the safeguarding of life-support capacity*
  - *the protection of instream uses and values.*
2. To manage the groundwater resources of the Gisborne District on a sustainable yield basis.

In assessing yield, matters to be considered shall include the potential for

- *decline in groundwater yields*
- *decrease in flows in water bodies*
- *interference between adjacent bores*
- *inflow of poor quality recharge water and/or saltwater intrusion.*

## **WATER MANAGEMENT**

3. To make provision for seasonal shortages of water by adopting water management methods which reduce the incidence or magnitude of such shortages.
4. To prepare regional water management plans for catchments and aquifers, as and when needed. Such plans to address allocation and quality issues, including conflict and scarcity, as appropriate. (see section 3.5)
5. To require, where appropriate, the provision of riparian retirement.

### **3.4.4 Methods of Implementation**

The Gisborne District Council will, in relation to freshwater generally:

1. Manage the allocation of all freshwater, including groundwater resources, by means of a resource consent, unless the abstraction is allowed by a rule in a regional plan [including the Gisborne Transitional Regional Plan or the water is taken for reasons allowed by the Act [s14(3)].
2. Make provision, in management plans, for allocation adjustments in the event of water shortages.
3. Monitor seasonal and long term cycles in the availability of water.
4. Investigate and where appropriate instigate seasonal water augmentation schemes whether through land use controls or engineered solutions such as retention dams, storage reservoirs or artificial recharge of aquifers.

5. Take into account the potential effect of land use practices on water availability when preparing regional plans and the district plan.
6. Develop techniques, in consultation with relevant agencies and interest groups, upon which to base an appropriate minimum flow or range of flows for the protection of aquatic life and instream values. [This policy has particular relevance to the preparation of water management plans for particular water bodies].
7. Prepare a water allocation plan for the Waipaoa River, publicly notified by 1 July 1996.
8. Prepare a water allocation plan for the Te Arai River, publicly notified by 1 July 1996 and, in relation to groundwater in particular
9. Continue to require bore permits for the construction of bores.
10. Continue to recognise and enforce the rules and performance standards included in the Gisborne District Council's Transitional Regional Plan [Underground Water Bylaw].
11. Prepare a groundwater plan for the Poverty Bay Flats, publicly notified by 1 July 1995.
12. Require groundwater abstractions to be metered.
13. Monitor abstractions and uses for breaches of management plans or water permits and pursue prosecution as appropriate [see policy (5) above].

## **WATER MANAGEMENT**

### **3.4.5 Reasons for Objectives, Policies and Methods**

Objective 1 is aimed at ensuring that all actual or potential uses of fresh water are satisfied to the extent that it is possible to do so. Under the Resource Management Act, Council is responsible for controlling the taking of water.

Water is able to be taken subject to the protection of its life support capacity and the avoidance or mitigation of adverse effects on aquatic ecosystems. Instream uses, which relate primarily to matters of public interest, should not be compromised for private gain [policy 1].

Objective 2 and policy 2 relate to the need to carefully manage the take from aquifers to ensure that they are not overdrawn to the detriment of existing or future users. Sustainable yield is the quantity of groundwater that can be abstracted from an aquifer for a prolonged period without depleting the resource or causing other adverse effects on groundwater users or groundwater quality. Information on the factors governing sustainable yields [e.g. source and rate of recharge] of aquifers on the Poverty Bay Flats is limited.

The regulatory regime embodied in method 1 is required by s14 and 15 of the Act, at least until such time as more refined plans are developed. Any activity that contravenes s14 requires a water permit. The Transitional Regional Plan authorises some minor takes of water for agricultural uses (not including irrigation), aerial spraying, public works excavations, road construction, from dams and of groundwater at a rate of less than 10m<sup>3</sup>/day. The Act also provides for a range of small takes which do not require consents (s14).

Policy 5 establishes that the retirement of the margins of lakes or rivers may be considered as a means of mitigating the effects of abstractive uses of water.

Gisborne periodically experiences seasonal shortages of water, so it is necessary to make provision for such shortages in water allocation plans. Plans need to establish priority uses for low flow periods and include contingency criteria by which individual allocations are adjusted in accordance with the objectives of the plan [policy 3, method 2].

There is a need to understand the pattern of frequency and severity of water shortages if appropriate steps are to be taken to ameliorate their adverse effects [method 3].

There is a need to investigate the justification for, and feasibility of, augmenting the dry season availability of water by developing or enhancing wet season storage [method 4].

Land use can have a significant impact on the seasonable availability of water. Vegetation clearance and drainage increases run-off and decreases the water storage capacity of catchment headwaters. Land use changes such as conversion of pasture to plantation forestry may effect water yields and the magnitude of low and high flows. Such effects need to be taken into account in certain circumstances e.g. water supply catchments and rivers that are particularly susceptible to low or flood flows.

## **WATER MANAGEMENT**

Council is able to prepare (catchment or location specific) regional water management plans, under the Resource Management Act 1991, with rules or other methods aimed at addressing particular water allocation (or water quality) issues. In general, allocation is determined by the particular purposes for which a particular water body is to be managed in accordance with community preferences.

The views or values of iwi are relevant to the process of deciding appropriate use(s), as are any reasons for the water body being highly valued on a regional or national basis [see section 4 of this Statement]. It will not be necessary to prepare a plan for most water bodies [policy 4].

The definition of a minimum flow, or an appropriate range of flows, is necessary to give effect to the Act's requirement to safeguard life support capacity [method 6]

The Waipaoa and Te Arai rivers have priority for the preparation of water management plans as these are the water bodies subject to the most demand for water supply and irrigation purposes [methods 7, 8].

The Transitional Regional Plan requires those who make, alter or install a bore to obtain a water permit, meet adequate construction standards, keep adequate records and to control discharges from and into the bore. These are necessary requirements for the adequate management of the resource [methods 9, 10].

A groundwater allocation plan for the Poverty Bay Flats is needed as a result of the intensification of land use on the Flats and the consequent increase in demand for water [method 11].

Council needs to know how much water is being abstracted if it is to manage the resource, promote efficient use and enforce water permits [method 12].

### **Alternatives considered**

The policies and methods outlined above signal that Council favours a mix of regulatory, education, planning and service delivery mechanisms to address problems associated with the allocation of water. This approach is consistent with public submissions. The principal alternative would be to rely solely on the resource consent process to achieve desired outcomes. This would encourage ad hoc decision making and would not enable the development of a planned approach to the allocation and efficient use of the resource. It would also do little to promote public understanding of the issues and support for any policy initiatives that may be necessary in the future.

### **Geothermal Resources**

The tangata whenua have urged that the Council adopt objectives, policies and methods relating to the allocation of geothermal resources, and especially protecting the Maori interest in these resources. The Council has not done so, firstly because the only known example of a geothermal resource in the region, at Te Puia, is so small and localised that it is not considered to be a regional issue, and secondly because the matter is, at time of preparing this Statement, under Waitangi Tribunal claim and it would be premature to address the matter prior to the Tribunal report.

## **WATER MANAGEMENT**

The Council is confident however that the provisions of the Act and this Statement relating to consents, and to consultation with tangata whenua will be sufficient to enable full and proper consideration of any applications to draw from this resource.

### **3.4.6 Integrated Management**

This issue relates to other issues discussed in Part 2 of this Statement, in particular:

- 2.6 Preservation of natural character.
- 3.3 Point-source discharges.
- 3.4 Non point source contamination.
- 3.6 Efficient use of freshwater resources.

### **3.4.7 Monitoring**

Council will monitor abstractions for consistency with water permits and management plans.

### **3.5 THE INEFFICIENT USE OF SOMETIMES LIMITED FRESHWATER RESOURCES CAN IMPOSE UNNECESSARY HARDSHIP ON ALL USERS OF THE RESOURCE AND CAN ALSO LEAD TO UNNECESSARY ADVERSE EFFECTS ON INSTREAM VALUES**

#### **3.5.1 Explanation**

Gisborne has a moderate rainfall but is prone to droughts during summer months. This could lead to competition for the available resource and stress on aquatic communities.

The conservation and [more] efficient use of water will increase water availability during drought periods and reduce the potential for conflict between uses.

#### **3.5.2 Objective**

1. The efficient use of surface and groundwater resources.

#### **3.5.3 Policy**

1. To promote the conservation and efficient use of the available surface and groundwater resources.

#### **3.5.4 Methods of Implementation**

The Gisborne District Council will:

1. Encourage, through the provision of information and advice, the efficient and effective use of the available water in specific water bodies.
2. Encourage, or require the adoption of water-saving practices and the use of water-saving devices, water meters, water recycling and the use of more efficient plant or manufacturing processes.
3. Investigate charging for the use of water as a method for improving the efficiency of use of water.
4. Investigate the use of transferable water permits and the relative efficiency of different methods of applying water to land or crops.
5. Support the use of water harvesting where appropriate. That is, the use of reservoirs, impoundments or tanks to collect or store surface runoff or rainfall during periods when water is plentiful.

## **WATER MANAGEMENT**

6. Require applicants for water permits to consider and report on methods that might reasonably be adopted to conserve water or to make more efficient use of it.
7. Attach conditions on permits, where appropriate, to promote water conservation and the efficient use of water.
8. Encourage or require water audits by major water users to identify areas of wastage and opportunities to conserve or use water more efficiently.
9. Support research into methods that promote the conservation or efficient use of water.

### **3.5.5 Reasons for Objectives, Policies and Methods**

Section 7(b) of the Resource Management Act 1991 requires that Council have particular regard for the efficient use of resources. The concept of efficiency has a number of dimensions in relation to resource use.

It suggests, *inter alia*, that where there is competition for a limited resource, judgements may, in the future, need to be made about the use or uses which yield the greatest net benefit(s) to the community [policy 1].

The provision of information and advice to domestic households, industry, agriculture and other consumers is a cost-effective method of promoting efficient use of the resource and avoiding the adverse effects of wasteful uses [methods 1, 2].

The Act provides for the use of a range of instruments to achieve the efficient allocation and usage of water. Methods 3 & 4 provide for investigating two of the more likely tools.

There may be potential for users of water to store water on site. The Council supports any such measure and this is reflected in method 5.

A requirement for applicants to justify their proposed use of water and to consider possible water conservation measures is consistent with the Act's requirement to investigate the adverse effects of activities [method 6].

Conditions on consents which encourage efficient use are an effective method. Abstractors may be required to demonstrate, over time, measures taken to reduce, reuse or recycle water [method 7].

Water audits by major water users, including the Council itself as a supplier, are a means of identifying areas of wastage or loss and opportunities to use water more efficiently. Water metering and associated charging for water provide a powerful incentive for consumers to reduce wasteful uses [method 8].

### **Alternatives**

The principal alternative to this policy is to permit, or do nothing to discourage, the inefficient or wasteful use of the resource. This would be inconsistent with sections 5 and 7(b) of the Act and would lead to increasing pressure on water resources with associated impacts and increased costs of supply. Water conservation and the efficient use of water can reduce consumptive demands and costs.



## WATER MANAGEMENT

### 3.5.6 Integrated Management

This issue relates to other issues discussed in Part 2 of this Statement, in particular:

3.5 Water allocation.

3.7 Preservation of natural character of water bodies.

### 3.5.7 Environmental Results Anticipated

1. Reduced pressure on resources during times of water shortage.
2. Reduced potential for conflicts of use.
3. Reduced cost of public water supply.
4. Less stress on aquatic communities.

### 3.5.8 Monitoring

Council will monitor consumptive uses of water, particularly the major users, with a view to identifying opportunities to make more efficient use of the available resource.

### 3.6 INAPPROPRIATE SUBDIVISION, USE AND DEVELOPMENT WITHIN THE GISBORNE DISTRICT CAN LEAD TO ADVERSE EFFECTS ON THE NATURAL CHARACTER OF LAKES, RIVERS AND THEIR MARGINS

#### 3.6.1 Explanation

This issue reflects a statutory requirement.

Wetlands include permanently or intermittently wet areas, shallow water and land margins that support a natural ecosystem of plants and animals that are adapted to wet conditions, e.g. swamps, bogs, lagoons. Lake means a body of freshwater which is entirely surrounded by land. River means a continually or intermittently flowing body of freshwater.

Significant wetlands are rare in the Gisborne District, but numerous small examples exist.

The region has no major lakes. Numerous small lakes and tarns exist such as the Tiniroto Lakes, which have value as wildlife habitats and for their scenery.

Significant rivers in the region include the Waipaoa, Waiapu, Mata, Tupaeroa, Awatere, Uawa, Hikuwai, Mangatokerau, Wharekopae, Waikohu, Te Arai and their tributaries. The headwaters of the Motu, Hangaroa (Wairoa), Waioeka and Waikura rivers arise in the region before flowing out through neighbouring regions.

The natural character of wetlands, lakes and rivers and their margins refers to those qualities which give these areas their recognisable character and may include qualities which are physical, spiritual, cultural or aesthetic, as well as any ecological characteristics.

A workable definition of a use or structure which is in accordance with the natural character of a place might be one which is in harmony with its surroundings.

## **WATER MANAGEMENT**

### **3.6.2 Objective**

1. Preservation of the natural character of:
  - *Wetlands, lakes and rivers, and*
  - *their margins; and their protection from inappropriate subdivision, use and development.*

### **3.6.3 Policies**

1. To protect wetlands and their biological communities from the inappropriate effects of land and water use and, where practicable, to promote the restoration of degraded wetlands and the creation of artificial wetlands.

In assessing the appropriateness of the effects of land and water use, to have regard to the following characteristics of any wetland:

- a) The degree of modification from a natural state;
- b) The degree of significance of areas of indigenous vegetation and/or habitats of indigenous fauna;
- c) The degree of representative importance;
- d) The biological uniqueness and/or diversity of species, communities, or habitats;
- e) The amenity values of the wetland (including cultural, recreational, and aesthetic values;) and
- f) The degree to which the wetland provides for the continued functioning of ecological and physical processes.

2. To ensure that:

- a) subdivisions, uses or developments on the margins, or in the beds, of lakes or rivers; or
- b) any activity in relation to the surface of water in rivers and lakes;
- c) are consistent with preservation of the natural character of those water bodies and their margins.

### **3.6.4 Methods of Implementation**

The Gisborne District Council will:

In relation to wetlands and their margins

1. Require permits to take, divert, or discharge into water where wetlands may be affected. An assessment of effects will be required and the appropriateness of any effect measured against the criteria in the policy.
2. Identify and record wetlands, lakes and rivers of high or outstanding value for their natural character in an inventory and provide for their protection, as appropriate, with rules, water conservation orders or heritage protection orders.
3. Advocate to relevant agencies, the use of other legislation or mechanisms such as the Conservation Act 1987, the Reserves Act 1977, and the Queen Elizabeth the Second National Trust Fund.
4. Investigate the workability of measures required to protect wetlands (buffer zones and land use practices) and advocate for protection by landowners for all significant wetlands.

## **WATER MANAGEMENT**

5. Provide advisory services on the effects of land drainage or land drainage practices and the value of protecting all wetlands and in particular the value of protecting, enhancing or creating wetlands as a means of reducing the impacts of land development on water quality and quantity.
6. Include in the District Plan, and conditions on resource consents provisions to preserve the natural character of wetlands, and their margins and to protect them from inappropriate subdivision, use and development (see also method 3.6.4.2).

And, in relation to rivers and lakes and their margins, will

7. include in the District Plan, and conditions on resource consents, provisions to preserve the natural character of lakes, rivers and their margins and to protect them from inappropriate subdivision, use and development.
8. continue to administer the rules in the Gisborne Transitional Regional Plan relating to the protection of watercourses, defences against water and shingle extraction [i.e. bylaws under the Soil Conservation and Rivers Control Act 1941].

### **3.6.5 Reasons for Objectives, Policies and Methods**

The preservation of the natural character of wetlands, lakes and rivers and their margins and their protection from inappropriate subdivision, use and development is identified in the Act (s6) as a matter of national importance that must be recognised and provided for in the Regional Policy Statement [Objective 1].

Wetlands are recognised as very important ecosystems, providing a habitat for a rich variety of flora and fauna and playing a role in reducing the impact of flooding, water storage (drought mitigation) and nutrient cycling. They may also have significant recreational and cultural value.

Most catchments in the Gisborne District have been heavily modified. Over the last 150 years, wetlands have suffered from subdivision, land drainage; the modification of streams, river channels and estuaries; pollution, and the invasion of habitats by exotic plants and animals. Many are still at risk from these influences. There is public concern to protect and enhance those that remain and to reinstate others where this is feasible.

Sections 5 and 6 of the Act relate to the need to preserve and protect wetlands in order to safeguard the life supporting capacity of water and ecosystems, preserve their natural character, and protect them as significant habitats of indigenous fauna and flora. Wetlands are also of significance to the tangata whenua.

The preservation stance adopted by Council also addresses the finite character of the resource [s7(g) RMA], the overall loss of environmental quality [s7(c)RMA] and the intrinsic value of these ecosystems [s7(d)RMA].

Section 6 of the Act regards the preservation of wetlands as being of national importance but does not preclude their “appropriate” use.

## **WATER MANAGEMENT**

Decisions as to what might constitute “inappropriate” use are essentially management decisions involving the weighing up and prioritising of a wide range of competing uses and values. The criteria have been included to assist with assessing the significance of wetlands and the appropriateness of any adverse effect.

By using these criteria, it should be possible to protect wetlands, but not preclude their use for some purposes, especially those that could assist with environmental management (e.g. the disposal of treated effluent or as a filter for removing contaminants from stormwater) [Policies 1 and 2].

Policy 2 reflects the statutory responsibilities of the Gisborne District Council [sections 6(a) and 31(e) of RMA].

The reason for adopting a strong regulatory approach to the management of wetlands is to prevent the further loss of or damage to these vital ecosystems. Under the Act, Council is able to control the taking, use, damming and diversion of water (s30(1)(e)RMA) [method 1].

There is a need to assemble all the available information on the Region’s stock of wetlands and their associated values, if they are to be appropriately managed. The Department of Conservation holds some information [method 2].

The Gisborne District Council may also, on occasions, play an ancillary role to other agencies or authorities such as the Department of Conservation, the Queen Elizabeth the Second National Trust or

the Forest Heritage Fund in their efforts to preserve wetlands. Protection initiatives by these organisations including the purchase, surveying, fencing and/or covenanting of wetlands can be supported by Council through second order protection mechanism under the Act, e.g. the prohibition of drainage that could affect these areas [method 3].

Methods 4 and 5 are practical low cost measures that Council will employ to further policy 1.

The provisions of the District Plan and the Transitional Regional Plan are important means of implementing policies 1, 2 and 3 [methods 6, 7 8].

### **Alternatives**

The Act requires that in carrying out functions under the Act, the preservation of the natural character of wetlands be recognised and provided for. There are no alternatives to the policy. The methods of implementation contain a mix of education, advocacy and regulation through plans and resource consents and are considered to be the most efficient and effective means of achieving the objective.

### **3.6.6 Integrated Management**

This issue relates to other issues discussed in Part 2 of this Statement, in particular:

2.6 Preservation of natural areas and features.

2.7 Public access.

3.3 Point-source discharges.

## **WATER MANAGEMENT**

3.4 Diffuse sources of contamination.

3.5 Water allocation.

### **3.6.7 Environmental Results Anticipated**

1. Preservation of the natural character of wetlands in Gisborne.
2. Provision for appropriate use and development of natural and physical resources.
3. Increased certainty to resource users and consistency of management decisions.
4. Reduced adverse effects on people, property and the environment.
5. Reduced costs to the community in the long term.

### **3.6.8 Monitoring**

The Council will monitor:

1. Progress in developing inventories of wetlands and riparian areas of significant natural character, and appropriate plan procedures for their protection.
2. The rate at which natural character of wetlands and riparian areas is enhanced or diminished as a result of resource consents.