9 Summary of Issues

9.1 Introduction

This chapter sets out a checklist of the main issues identified during the development of the policy chapters of this regional plan. This includes issues relating to the natural and physical resources of the Tarawera River catchment and the concerns of people and communities who live within the catchment.

9.2 Issues

9.2.1 Chapter 7 – Community Attitudes and Perceptions

Issues relating to community attitudes and perceptions include:

9.2.1(a) Survey results show that a significant proportion of the community is concerned that the Lower Reach of the Tarawera River is degraded by discharges.

9.2.1(b) Employment opportunities are perceived by the community to be linked to the continued operation of industry and primary production in the catchment.

9.2.1(c) Both the community and industry perceive an environmental, economic and employment advantage in the staged enhancement of Tarawera River quality.

9.2.2 Chapter 8 – Resource Management Issues of Significance to Iwi

Iwi have identified the following main matters of concern:

9.2.2(a) Pollution of Water: The mauri (life force) that water contains is not being respected and cared for. Wastewater is discharged, through point and diffuse source outlets, degrading the mauri of water bodies. The continued degrading and use of river water to transport or treat contaminants are not acceptable to iwi authorities. The discharge of human bodily waste, either untreated or treated, to local water bodies must cease.

9.2.2(b) Water Quantity: The water quantity in the Tarawera catchment is not being maintained, in particular the water levels within the lagoons and wetlands on the Rangitaiki Plains are not effectively managed.

9.2.2(c) Wetlands: The wetlands and swamp area on the Rangitaiki Plains are being destroyed together with the traditional food values they hold for iwi.

9.2.2(d) Land Management: Land use activities and practices are being undertaken without concern for the mauri of the resource.

9.2.2(e) Heritage Places: Heritage places are not being cared for and maintained to ensure that Maori people will continue to evolve with an integrity that unites them with their past, and that Maori culture is preserved.

9.2.2(f) Social and Economic Development: While industry provides employment for some Maori the long term social and economic wellbeing of tangata whenua is also related to the health of the river.

9.2.2(g) Ownership and Management: Iwi do not have rightful ownership of their resources and lack management (kaitiaki) input into traditional resources including the river itself.

9.2.3 Chapter 10 – Public Access

The issues relating to public access are:

9.2.3(a) Public access to and long river and lake margins may be constrained by a lack of public knowledge, lack of public reserves and unwillingness of landowners to allow access.

9.2.3(b) Public access to and long river and lake margins may in some cases threaten ecological, natural character, intrinsic and heritage values, water and soil resources, and safety and security.

9.2.3(c) There is a risk of water weed transfer between water bodies.

9.2.3(d) Public access to the Tarawera River is limited or prevented along large areas of river bank by nuisance growths of willows.

9.2.4 Chapter 11 – Land Use

Land use issues particular to the Tarawera River catchment are:

9.2.4(a) Removal of vegetation on steep lands, gullies and headwaters can result in erosion.

9.2.4(b) Soils, particularly tephra based soils on steeper slopes, can be particularly vulnerable to soil erosion and sediment and nutrient runoff due to unsustainable land use practices.

9.2.4(c) Inappropriate subdivision, use and development of lake and wetland margins can result in erosion and the runoff of sediment and nutrients.

9.2.4(d) Erosion problems and the discharge of sediment resulting from earthmoving operations on steep-faced tephra based soils.

9.2.4(e) Many wetlands, native forest and shrubland areas are suffering due to a lack of proactive protection, particularly fencing and pest control.

9.2.4(f) The reluctance or lack of awareness of some land users results in continuing unsustainable land use and land use practices.

9.2.4(g) The spread and control of wilding pines, particularly into land administered by Department of Conservation and other reserve land, is a problem.

9.2.4(h) The possible impact on water resources and wider environmental consequences of expanding production forestry is not well understood.

9.2.4(i) Inappropriate subdivision, use and development of river, lake and wetland catchments can result in loss of heritage values, including natural character.

9.2.4(j) The grazing of stock in wetlands and on riparian margins of waterways, including drains and canals, is inappropriate and unsustainable if it causes soil erosion and nutrient runoff.

9.2.5 Chapter 12 – River and Lake Beds

The issues related to the management of river and lake beds are:

9.2.5(a) Activities on, in, under, or over the beds of rivers and lakes, including the location of structures, reclamation works, the grazing of stock, and the draining of beds, can adversely affect water quantity and quality, and contribute to soil erosion and sedimentation.

9.2.5(b) Activities on, in, under, or over the beds of rivers and lakes, including the location of structures, reclamation works, the draining of beds, and the grazing of stock, can variously adversely affect public access and safety, aquatic ecology, significant flora and fauna, natural character, natural features and landscapes, and amenity and heritage values.

9.2.5(c) The introduction or planting of plants (vegetation), has adversely affected the natural character and natural ecology of parts of river, lake, and wetland beds and their environments.

9.2.5(d) The disturbance, removal, damage and destruction of plants (vegetation) have adversely affected the natural character and ecology of parts of river, lake and wetland beds and their environments.

9.2.5(e) Sedimentation, both natural and human-induced, can adversely affect in-stream ecologies and the integrity of flood protection schemes.

9.2.6 Chapter 13 – Freshwater Ecology

The following are considered by Environment Bay of Plenty to be the important ecological issues affecting the water bodies of the Tarawera River catchment (excluding the Tarawera Lakes):

9.2.6(a) Dissolved oxygen depletion is high in the Lower Reach of the Tarawera River.

9.2.6(b) The discharge of coloured effluent decreases light penetration which in turn can limit the growth of aquatic plants.

9.2.6(c) Undesirable biological growths have been a problem downstream from the Carter Holt Harvey Tissue discharge outfall.

9.2.6(d) The ecological impact caused by changes in the technology of industrial discharge treatment cannot be predicted with certainty.

9.2.6(e) Poor water quality in the lower river may be reducing the success of juvenile fish migration to the upper tributaries.

9.2.6(f) Dissolved oxygen concentrations are at present too low to support a viable trout habitat in the Lower Reach of the Tarawera River.

9.2.6(g) Dissolved oxygen concentrations are occasionally too low to sustain a viable trout habitat in the reach of the Tarawera River between Braemar and the river mouth.

9.2.6(h) Eels in the lower river are showing stress symptoms attributed to pulp and paper contaminants.

9.2.6(i) Smelt growth appears to be indirectly enhanced by the industrial inputs.

9.2.6(j) The wetlands of the lower catchment represent 1.7% of those which once covered floodplains of the Tarawera and Rangitaiki Rivers.

9.2.6(k) The botanical and wildlife values of catchment habitats including wetlands and lakes are threatened.

9.2.6(l) Wetlands and lakes are variously threatened by nutrient and contaminant inputs, exotic plant infestation, over drainage, siltation and direct physical damage.

9.2.6(m) Historical pulp and paper industry contaminants in sediments in the eastern part of Matata Lagoon are a concern.

9.2.7 Chapter 14 – Surface Water Quantity

The issues relating to surface water quantity are:

9.2.7(a) Human-induced reductions in river flows and lake and wetland levels, and the containment of water in streams and rivers, can adversely affect:

- aquatic ecology and biodiversity;
- natural character;
- other water body users, such as fishers and canoeists;
- ability to assimilate wastewater.

9.2.7(b) Human-induced reductions in river flows and lake and wetland levels, and containment of water in streams and rivers, can contribute to:

- increases in temperature and reductions in dissolved oxygen;
- increased toxicity in the Lower Reach of the Tarawera River in particular.

9.2.7(c) Human-induced changes in land cover have reduced stream and river flows in large parts of the catchment.

9.2.7(d) Wetlands on the Rangitaiki Plains are threatened by lowering of water tables and drainage.

9.2.8 Chapter 15 – Surface Water Quality

Issues relating to surface water quality are:

9.2.8(a) Degradation of water quality and its adverse effects on the life-supporting capacity, ecosystems, aesthetic, amenity and cultural values, other than those effects resulting from natural occurrences or perturbations, due to:

9.2.8(a)(i) Increased levels of nutrients from land runoff and effluent discharges.

9.2.8(a)(ii) The continued discharge of large quantities of industrial effluents containing a range of contaminants into the Lower Reach of the Tarawera River is a concern to the community.

9.2.8(a)(iii) Inappropriate farming and forestry practices and incompatible land uses.

9.2.8(a)(iv) The discharge of sewage into surface water in the Tarawera River catchment.

9.2.8(a)(v) Low dissolved oxygen levels in the Lower Reach of the Tarawera River and in the canals on the Rangitaiki Plains.

9.2.8(a)(vi) The discharge of toxic substances to the Lower Reach of the Tarawera River.

9.2.8(a)(vii) The discolouration of the Lower Reach of the Tarawera River.

9.2.8(a)(viii) Emission of objectionable odour from the Lower Reach of the Tarawera River.

9.2.8(a)(ix) The existence of undesirable biological growths in parts of the Lower Reach of the Tarawera River.

9.2.8(a)(x) The tainting of water in the Lower Reach of the Tarawera River.

9.2.8(a)(xi) The occasional production of conspicuous foams and scums in the Lower Reach of the Tarawera River.

9.2.8(a)(xii) The raising of the water temperature in the Lower Reach of the Tarawera River, and consequent effects on dissolved oxygen levels.

9.2.8(a)(xiii) The discharge of geothermal wastewaters into the Lower Reach of the Tarawera River.

9.2.8(b) A lack of appropriate water quality standards in the catchment to protect water bodies and the environment from the adverse effects of water degradation.

9.2.8(c) The strong community requirement that the degraded water quality in the Lower Reach of the Tarawera River be managed to avoid, remedy or mitigate unacceptable effects has not been achieved.

9.2.8(d) Degradation of the quality of water in the catchment of the Tarawera Lakes due to inappropriate subdivision, use and development.

9.2.9 Chapter 16 – Groundwater Quality and Quantity

Issues relating to groundwater quality and quantity are:

9.2.9(a) Land use activities can lead to the movement of contaminants into groundwater, particularly over unconfined aquifers.

9.2.9(b) The high quality deep groundwater resource may be over used and become depleted.

9.2.9(c) The scarcity of shallow high quality groundwater may lead to conflict between users.

9.2.9(d) Localised nutrient and faecal contamination of springwater used for domestic and stockwater supply is occurring and could cause health problems.

9.2.9(e) Land based waste disposal systems may have adverse effects on good quality groundwater.

9.2.9(f) The monitoring of groundwater quality beneath surface discharge systems is inadequate.

9.2.10 Chapter 17 – Geothermal Resources

Geothermal issues relevant to this regional plan include:

9.2.10(a) Without sustainable reinjection or treatment of waste geothermal fluid, discharge effects caused by geothermal contaminants entering Tarawera River water are increased.

9.2.10(b) Heat in fluid discharged into the Tarawera River is not being fully utilised for the benefit of the community, particularly for electricity generation, tourism and therapeutic uses, or mineral extraction and as a consequence increases the risk of heat contamination effects on the river water.

9.2.10(c) Inappropriate methods of reinjection may cause the contamination of groundwater.

9.2.10(d) Without ongoing monitoring and assessment the effects of natural geothermal discharges into the Tarawera River, cannot be taken into account.

9.2.10(e) Significant geothermal surface features should be protected.

9.2.10(f) The development of the Kawerau geothermal field may increase the risk of land subsidence and tilt.

9.2.11 Chapter 19 – Monitoring and Plan Review

Issues relating to monitoring and plan review include:

9.2.11(a) Monitoring

9.2.11(a)(i) There is a need to acquire and maintain sufficient information to allow the effective management of natural and physical resources in the Tarawera River catchment.

9.2.11(a)(ii) The understanding of the fate and effect of contaminants in the aquatic environment is continually evolving.

9.2.11(a)(iii) In order to be effective, the review of this plan must have consideration to advances in environmental knowledge, research protocols and the setting of standards for environmental protection.

9.2.11(b) Review

9.2.11(b)(i) Without the review of this regional plan within a realistic time frame, it would be extremely difficult to assess the attainment of the stated objectives or to take account of changes in industrial technology, environmental research and standards, and community aspirations.

9.2.11(b)(ii) Dialogue, information sharing and debate at Tarawera River Liaison Group meetings have greatly contributed to the establishment of standards and goals to focus this regional plan. It would be of benefit if the group would continue to contribute to the development, review and monitoring of the plan.

9.2.11(b)(iii) There needs to be a continued availability of information to the community from both Environment Bay of Plenty and water users on progress with the implementation of plan goals.