12 River and Lake Beds

12.1 Introduction

This chapter addresses the management of the beds of rivers and lakes[41] (including wetlands[42]). It deals with activities, other than those on the surface of water bodies, which have an adverse effect, or potential adverse effect on the beds of the rivers and lakes and their associated environments. Section 13 of the Resource Management Act 1991 restricts certain uses on, in, under, or over the beds of rivers and lakes (including wetlands) unless expressly allowed by a rule in a regional plan, proposed regional plan, or resource consent. Similarly, section 13 also restricts the introduction or planting of plants or any part of any plant, as well as the disturbance, removal, damage, or destruction of any plant or part of any plant, or of the habitats of any plant, or animals in, on, or under the bed of any lake or river.

The Act (section 30(1)(g)) makes the control of activities in, on, under or over lake and river beds the responsibility of Environment Bay of Plenty. District councils retain responsibility on the beds of rivers and lakes for creating esplanade reserves and strips and subdivision. Section 31 of the Act also makes district councils responsible for the control of any actual or potential effects of activities in relation to the surface of water in rivers and lakes.

The primary resource management issues relating to the beds of rivers and lakes are the location of structures, sedimentation, the reclaiming or draining of beds, other lake and river bed disturbances, and the introduction and removal of vegetation.

12.1.1 Structures

The Resource Management Act 1991 requires that assessments of the use, erection, reconstruction, placement, alteration, extension, removal, or demolition of any structure, or part of any structure, be based on their effects on the environment.

There are a large number (possibly in excess of 4,000) structures located on, in, over, or under the beds of the rivers, lakes, and wetlands in the Tarawera River catchment. These structures range from farmers' stream crossings to industrial outfall pipes. In general, structures on, in, under or over the beds of rivers and lakes of the Tarawera River catchment are concentrated around the Kawerau industrial area and on the shores of Lakes Tarawera and Okareka[43].

There are numerous private boat sheds and ramps around the western shores of Lake Tarawera and around the shores of Lake Okareka. Also around the western shores of Lake Tarawera are a substantial number of small pipes for abstracting water for domestic supply. The structures in, on, under, or over the Tarawera River

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41 The bed of a river is generally that space of land which the waters of the river cover at their fullest flow without overtopping their immediate banks. The bed of a lake is generally that space of land which the waters of the lake cover at its highest level without exceeding its margin.

42 Lakes include fresh water wetland areas which are entirely or nearly surrounded by land.

43 In early 1994, Environment Bay of Plenty prepared a comprehensive inventory of major structures located in, on, under, or over the beds of the lake and rivers within the Tarawera River catchment, using a geographical positioning system to locate the position of the structures accurately. This inventory includes an assessment of the use, condition and hazard potential of the structures. Environment Bay of Plenty has not considered it cost-effective to identify **all** structures in, on, under, or over the beds of river and lakes, since the vast majority have little adverse effect on the environment.

in and around Kawerau industrial area are generally associated with either the abstraction of water or the discharge of contaminated water. The bed of the Lower Reach of the Tarawera River includes a number of flood gates and other water control structures.

The consideration of whether a structure has, or is likely to have, an adverse effect on the environment is dependent on a number of factors, including, but not limited to, ecology, natural character, amenity value and sometimes its purpose. In the past some structures were considered to be inherently positive or negative, based on the activities with which they were associated.

Structures, located in, on, under or over the beds of river and lakes can affect the environment in a variety of ways. Structures located in rivers can alter flows and water levels, diverting and ponding water leading to scouring and erosion of river beds and subsequent sediment build-up downstream. Erosion and disturbance of river and lake beds can threaten in-stream ecosystems by smothering the habitat and food sources of aquatic life. Where river flows are reduced by containment structures and damning, a river may lose its ability to transport heavier sediments, and can also suffer a reduction in the total amount of sediment flushed. Containment structures, such as dams, can also lead to increases in water temperature. Structures can also cause problems if they break free, and can also result in higher water levels when floods come.

Contaminants associated with the construction of structures, such as hydrated lime from the pouring of concrete, can alter the quality of the water and threaten the ecology of the water body. Structures located in water bodies, particularly streams and drains, can also form a barrier obstructing the migration of fish. This matter is discussed further in section 13.4.7, and shown in Map 6.

Structures can also adversely affect natural character and amenity values by being inappropriately located or designed so as to detract from the surrounding environment, or may otherwise obstruct recreational users or put people and ships at risk.

Some structures are associated with the discharge of wastewater, such as those around the Kawerau industrial area. Some of these discharge points are so close to one another that they do not allow for adequate monitoring of the effects of the discharges after reasonable mixing. This is likely to require the relocation or consolidation of some discharge points. Environment Bay of Plenty intends that a resource consent application for intake or outfall structures be processed together with the corresponding take or discharge application.

In regulating structures on the beds of lakes and rivers, regard needs to be had to the Building Act 1991[44]. The Building Act is administered by district councils. The definition of a "building" includes many of those examples commonly found on the beds of rivers and lakes[45]. However, the Third Schedule to the Building Act 1991

[44] The purposes of the Building Act 1991 (Section 6) are to provide for:

(a) Necessary controls relating to building work and the use of buildings, and for ensuring that buildings are safe and sanitary and have means of escape from fire; and

(b) *The coordination of those controls with other controls relating to building use and the management of natural and physical resources.*

[45] The Building Act 1991 (Section 3) definition of "building" is:

…In this Act, unless the context otherwise requires, the term "building" means any temporary or permanent movable or immovable structure (including any structure intended for occupation by people, animals and machinery, or chattels); and includes any mechanical, electrical, or other system, and any utility systems, attached to and forming part of the structure whose proper operation is necessary for compliance with the building code; but does not include:

(a) Systems owned or operated by a network utility operator for the purpose of reticulation of other property; or

(b) …….etc.

provides exemption for certain types of structure which might otherwise require a building consent under the Building Act. Unless new structures are exempt under the provisions of the Building Act and are permitted by this regional plan, they may require both a building consent from the relevant territorial authority and a land use consent from Environment Bay of Plenty, except in the Rotorua District area.

In the Rotorua District, Environment Bay of Plenty has, by mutual agreement, transferred those of its functions relating to the regulation of structures on, in, under or over the beds of rivers and lakes in the Tarawera Lakes catchment, to the Rotorua District Council. The Rotorua District Council will consider and decide on resource consent applications to locate structures on the beds of the lakes and rivers within that part of the Tarawera Lakes catchment that falls within the boundary of the Rotorua District Council. Any decision by the Rotorua District Council will be subject to the provisions of this regional plan[46] and any additional rules contained in the Rotorua District Plan. Environment Bay of Plenty has also transferred the regulation of maimai to the Eastern Region Fish and Game Council[47]. This transfer includes the alteration or disturbance of lake, river or wetland beds.

12.1.1(a) Structures – Selected Management Alternative

Most existing (July 1994) structures located in, on, over or under the beds of rivers, lakes and wetlands located within the Tarawera River catchment, do not have any undue adverse effects on the environment, and indeed may in some cases have a net positive effect by, for instance, encouraging the sustainable use of water bodies, such as public boat ramps. As long as any existing structure meets or betters the standard conditions and relevant rules contained in this regional plan, it should be considered a Permitted Activity. New structures, and the extension or reconstruction of existing structures that exceed specified criteria, will be managed as discretionary activities. Policies and methods have been established to ensure that redundant structures are removed.

12.1.1(b) Structures – Supporting Technical Reports

No specific technical reports, other than geographical positioning of some structures, were undertaken as part of the preparation of this section.

12.1.2 Sedimentation, and Other River and Lake Bed Disturbance

Sedimentation can be both a naturally occurring process or human-induced. Human-induced sedimentation generally occurs as the result of inappropriate land use activities or practices which result in increased erosion and sedimentation loads reaching water bodies.

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[46] Both the Rotorua District Council and the Eastern Region Fish and Game Council, and any other organisation to whom the regulation of structures might be subsequently transferred, are obliged to abide by the objectives, policies and rules contained within this regional plan and within other relevant regional and district plans.

[47] The transfer to the Eastern Region Fish and Game Council is currently in limbo due to new section 418(3) being added to the RMA as a result of Resource Management Amendment Act 1993. Section 418(3) states:

For the purposes of this Act, section 13(1) shall not apply in respect of any activity lawfully being carried out in relation to the bed of any river or lake before the 1st day of October 1991 which did not require any licence or other authorisation relating to such activity under any of the Acts, regulations, or bylaws, or parts thereof, amended, repealed, or revoked by this Act, until a regional plan provides otherwise.

This regional plan remedies this situation.

An excessive concentration of suspended and settleable solids can adversely affect the aquatic environment by:

(a) Smother aquatic fauna;

(b) Altering hydraulic flows and patterns;

(c) Acting directly on fish by killing them or reducing growth rates and disease resistance;

(d) Preventing the successful development of fish eggs and larvae;

(e) Modifying natural movements and migrations of fish;

(f) Reducing the food available to fish.

Increased sedimentation has its greatest effect in the delta of rivers or in places where the gradients are low. The highly-mobile pumice beds of streams and rivers in the Tarawera River catchment and the contribution of natural and human-induced sedimentation raises issues about the effects of sedimentation in the Lower Reach of the Tarawera River.

From time to time sediment builds up in the Lower Reach of the Tarawera River, creating sediment islands, which usually disappear during flood events. However, if vegetation becomes established, the islands become more difficult to move through natural processes. The creation of these islands can at times threaten the integrity of the flood protection works in the Lower Reach of the Tarawera River by altering water flow and raising the bed of the river. The build up of sediment can also result in navigation difficulties.

The Lower Reach of the Tarawera River has been extensively modified over the past thirty years for flood protection and drainage purposes. Realignment works have been designed to accommodate sedimentation loads. Although periods of sedimentation are apparent, these are often followed by periods of scour, leaving the overall effect of sedimentation at zero. While the Lower Reach of the Tarawera River has been extensively modified, the build-up of sediment is still largely a natural occurrence.

Sedimentation and infilling are very real problems in the Matata Lagoon, lowering water depths, decreasing the area of wetland, and encouraging the encroachment of marginal vegetation, particularly raupo[48]. Natural sedimentation occurs in the Lagoon due to the steep catchment which contributes to water in the Lagoon. Wood fibre from the pulp and paper mills at Kawerau was deposited from the Tarawera River into the lower Matata Lagoon during the 1960s. This formed a deep layer of darkly-coloured organic sediments. The Department of Conservation has constructed sediment traps to reduce the amount of sediment entering the Lagoon and has indicated its intention to dredge parts of the Lagoon. Environment Bay of Plenty is concerned that any dredging of the Matata Lagoon take place only after a comprehensive assessment of the environmental effects of such action, and in full consultation with appropriate iwi authorities.

The physical removal of built-up sediment can have adverse effects on in-stream ecologies and habitats. Environment Bay of Plenty recommends that the removal of sediment and in-stream islands should be undertaken only after a full environmental impact assessment has been prepared.

12.1.2(a) Sedimentation, and other River and Lake Bed Disturbance – Selected Management Alternative.

[48] APR Consultants, 1993.

There are two management alternatives relating to sedimentation:

(a) Consideration of sedimentation as a natural process and no action taken; and
(b) Consideration of sedimentation as a natural process which requires management.

Environment Bay of Plenty's selected alternative is to treat sedimentation and other disturbances affecting the beds of rivers and lakes as processes or actions which should, within reason, be designed and regulated. As a result Environment Bay of Plenty proposes that the dredging of the sediment islands in the Lower Reach of the Tarawera River be a Permitted Activity. The control of sediment in all other river and lake beds areas, due to their more sensitive nature, will be discretionary activities and require resource consents.

12.1.2(b) Sedimentation, and other River and Lake Bed Disturbance

The following technical reports and memoranda prepared as part of the preparation of this regional plan contain more detailed information on the control of sedimentation or the chemistry of sediment in the lower ponds of the Matata Lagoon.

Wilkins, A.L, Healy, TR, Leipe, T 1992, Dehydroabietic Acid and Related Organic Components in Sediment from the Matata Lagoon and Tauranga Harbour, Bay of Plenty, New Zealand, (DHAA Report), Departments of Chemistry and Earth Sciences, University of Waikato, Hamilton

Titchmarsh, R 1994 (21 March), Tarawera River Regional Plan – Sedimentation Memorandum from Mr R Titchmarsh (Manager Technical Services) to Mr D Ponter (Regional Planner), Environment Bay of Plenty, *Unpublished*.

12.1.3 Reclaiming and Draining Beds

The drainage of reclamation of the beds of rivers, lakes or wetlands can have significant adverse effects on cultural values, local ecosystems, and the habitats or many native and exotic plants and animal species.

Before the late 1800s the Rangitaiki Plains were one large wetland area, with the Whakatane, Rangitaiki and Tarawera Rivers meandering through it to the Pacific Ocean. The Tarawera, Rangitaiki and Omeheu Rivers jointed together to form a single waterway, which flowed out through a harbour portage at Matata. In the early 1900s, large parts of the Rangitaiki Plains were drained for use as pastoral land. Central government and local authorities were empowered to facilitate the drainage of the wetlands.

The drainage and reclamation of the Rangitaiki wetlands for pastoral agriculture has left approximately 1.7% of the original wetland area remaining. In accordance with section 6(a) of the Resource Management Act 1991 Environment Bay of Plenty will encourage the preservation of the remaining wetlands and other water bodies within the Tarawera River catchment, unless associated with flood protection and control works, or minor reclamations associated with the location of consented structures. Although draining wetland areas could lead to their economic use as pastoral lands, the Resource Management Act 1991 requires, as a matter of national importance, that the natural character of wetlands, lakes and rivers be preserved. Minimum and maximum water levels for the wetlands in the Lower Reach of the Tarawera River are discussed and set in Chapter 14 – Surface Water Quantity

12.1.3(a) Reclaiming and Draining Beds – Selected Management Alternative

There are three alternatives relating to the reclamation and drainage of beds of rivers, lakes and wetlands:

(a) The relative "carte blanche" approach as in the past; or

(b) The effects of reclamation or drainage of wetlands, and lakes and rivers and their margins and beds being managed as discretionary activities requiring resource consents; or

(c) A prohibition, except for defined protection or control works, and minor reclamations associated with the installation of authorised structures.

Environment Bay of Plenty proposes (b); that reclamation and drainage of the beds of rivers, lakes and wetlands, including flood mitigation or installation works, be discretionary activities. Evidence shows that the water bodies of the catchment of the Lower Reach of the Tarawera River, in particular, have already been significantly modified, adversely affecting the natural environment. As a matter of national importance, wetlands, lakes and rivers and their margins and beds require preservation from effects such as reclamation and drainage that may compromise their natural character qualities and values. Environment Bay of Plenty considers that the impact of such effects should be assessed and decided through the formal consent process. Specific flood protection and control works or minor reclamations associated with consented structures should also be managed under this process.

12.1.3(b) Reclaiming and Draining Beds – Supporting Technical Reports

The following technical report written as part of the preparation of this regional plan, contains more detailed information on reclamation and drainage of beds in the catchment of the Lower Reach of the Tarawera River:

Titchmarsh, R 1994, 21 March Tarawera River Regional Plan – Sedimentation, Memorandum from Mr R Titchmarsh (Manager Technical Services) to Mr D Ponter (Regional Planner), Environment Bay of Plenty – *Unpublished*.

12.1.4 Introduction and Removal of Plants

The introduction and removal of plants to the beds of rivers of lakes, rivers and wetlands need to be carefully managed to minimise potential adverse effects on the environment. This relates to plants existing both below and above the water line, but growing on the beds of rivers, lakes and wetlands.

Crack Willows were initially planted in river margin areas for soil conservation purposes. Willows grow prolifically in this environment. While they continue to play an important erosion control function they have also become a nuisance. Unless controlled, they start growing in the water body, altering the flow of the river, and impinging on the ecosystem and natural character. A concern, particularly of canoeists, is the safety hazard presented by willows overhanging the river. Prolific willow growth also restricts reasonable access along the riverbanks for people wanting to get to the river for recreation. Willows are growing in both the upper and lower reaches of the river and have become a particular nuisance in the wetlands in the catchment of the Lower Reach of the Tarawera River, where they ultimately smother native vegetation and threaten the habitat of aquatic and bird life.

Environment Bay of Plenty has an ongoing role in controlling willows along the banks of the Tarawera River and its tributaries under the Rangitaiki-Tarawera Major Scheme. The Department of Conservation and the Eastern Region Fish and Game Council are both involved in willow eradication programmes in the wetlands. Both these two agencies and Environment Bay of Plenty are in favour of planting

native species, to replace willows for erosion control practices, where practicable and given the availability of the right species.

12.1.4(a) Introduction and Removal of Plants – Selected Management Alternative

Environment Bay of Plenty has assessed that the Resource Management Act 1991 requires the control of the introduction and removal of plants in, on or under rivers, lakes and wetland beds. The Act states that unless allowed by a regional plan or otherwise by a resource consent, no introduction or removal of plants is permitted. Environment Bay of Plenty proposes that except in certain instances, as detailed in Rules 12.2.5(j) and 12.2.5(k) the planting or removal of plants or parts of plants, or the habitats of any such plants or animals, in, on, or under the bed of rivers, lakes or wetland should be discretionary activities.

12.1.4(b) Introduction and Removal of Plants – Supporting Technical Reports

Chapter 14 contains references to technical reports written as part of the preparation of this regional plan that give detailed information on habitats and plant life in, on or under the beds of rivers, lakes and wetlands.

12.2 Issues, Objective, Policies, Methods of Implementation, Principal Reasons and Anticipated Environmental Results

The objective, policies, and methods of implementation in this chapter apply to all structures and activities in, on, under or over the beds of rivers, lakes, and wetlands within the Tarawera River catchment.

12.2.1 Issues

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

12.2.1(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.

12.2.1(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.

12.2.1(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.

12.2.1(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.

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

12.2.2 Objective

Adverse effects resulting from activities on, in, under or over the beds of rivers and lakes are minimised.

12.2.3 Policies

12.2.3(a) To ensure activities do not disturb river, lake and wetlands beds in a manner which adversely affects the aquatic environment and ecosystems, natural character, natural features and landscapes, and amenity, cultural, traditional and heritage values.

12.2.3(b) To provide control over the planting, disturbance, removal, damaging or destruction of plants in, on, or under river, lake or wetland beds.

12.2.3(c) To encourage a formal maintenance programme for managing willows.

12.2.3(d) To ensure that abandoned structures are removed.

12.2.3(e) To provide relevant assistance to other agencies involved in river, lake and wetland preservation.

12.2.3(f) To preserve the natural character of wetlands, and lakes and rivers and their margins and beds, and protect them from inappropriate subdivision, use and development.

12.2.3(g) To promote the reasonable shared use, including public use, of private structures occupying public space in or on the beds of water bodies.

12.2.4 Methods of Implementation – General

Environment Bay of Plenty will:

12.2.4(a) By 1 July 1997, notify all known owners and/or operators of structures which are not permitted by this regional plan, located in, on, under or over the beds of the lakes, rivers, and wetlands within the catchment as to the requirements for the authorisation of those structures.

12.2.4(b) Require that within one calendar year following the date on which this regional plan becomes operative, resource consent applications pursuant to rule 12.2.5(c) for existing structures for discretionary activities on, in, under or over beds of rivers, lakes and wetlands shall be lodged.

12.2.4(c) Require that within one calendar year following the date on which this regional plan becomes operative, all abandoned structures, and structures with no identified ongoing purpose be removed, at their owners' expense, from the beds of river, lakes and wetlands, except for those structures for which a resource consent application has been lodged but not decided.

12.2.4(d) Where possible, use indigenous plants for soil erosion control purposes alongside the Tarawera River and its tributaries, and in other river, lake, or wetland areas.

12.2.4(e) Where possible use alternative to willow species and associated invasive cultivars for soil erosion and river control purposes.

12.4.4(f) Establish a forum with the Department of Conservation, iwi authorities and other interested parties to investigate alternatives to the use of willow species for soil erosion and river control purposes.

District Councils are encouraged to:

12.2.4(g) Avoid the inappropriate subdivision of land in or adjacent to the beds of rivers, lakes, and wetlands.

12.2.5 Methods of Implementation – Rules

12.2.5(a) For the purposes of this regional plan, any watercourse connecting lakes within the Tarawera River catchment is a tributary stream of the lake into which it flows.

12.2.5(b) The use, erection, reconstruction, placement, alteration, extension, removal or demolition of any structure or part of any structure, in, on, under, or over the bed of any river or wetland, within the Tarawera River catchment shall be a Permitted Activity, subject to compliance with all the conditions of Rule 12.2.5(m),

except that:

(i) an overhead cable or transmission line that, when measured at its lowest point above the bed of the waterbody, is greater than 10 metres above the 50 year flood water level for the site, or

(ii) a bridge (including a pipe bridge) spanning the main stem of the Tarawera River that, when measured at its lowest point above the bed of the river, is greater than 1 metre above the 100 year flood water level for the site and has no abutments or supporting structures in, on or under the bed of the river, or

(iii) notwithstanding the requirements of rule 12.2.5(e), a line, cable or pipeline, including any telecommunication line as defined in section 2(1A) of the Telecommunication Act 1987, installed by drilling or tunnelling (including pipe thrusting) under the main stem of the Tarawera River that, when measured at its highest point under the bed of the river is not less than 4 metres below the bed of the river,

shall be a Permitted Activity subject to compliance with conditions (iv), (v), (vii), (viii) and (ix) of Rule 12.2.5(m); and

(iv) The use, erection, reconstruction, placement, alteration, maintenance, extension, removal or demolition of a stream crossing, being any structure supporting a path, road or track over a streambed, including a culvert, single span bridge or ford, located in, on, under or over the bed of any tributary stream of the main stem of the Tarawera River, is exempt from the requirements of this plan.

Advisory Note:

The Operative Bay of Plenty Regional Land Management Plan has requirements relating to the installation and management of stream crossings. Anyone installing a stream crossing of the type described in rule 12.2.5(b)(iv) above would need to comply with the terms and conditions of section 10.5.6 of the Operative Bay of Plenty Regional Land Management Plan.

12.2.5(c) The use, erection, reconstruction, placement, alteration, extension, removal or demolition of any structure or part of any structure, in, on, under, or over the bed of any river or wetland within the Tarawera River catchment that does not comply with Rule 12.2.5(b) shall be a Discretionary Activity, and any application for a consent under this Rule shall be considered with regard to the criteria of Rules 12.2.5(m) and 12.2.5(o).

12.2.5(d) Notwithstanding Rule 12.2.5(b), the use, erection, reconstruction, placement, alteration, extension, removal or demolition of any structure located in, on, under, or over the bed of any river, lake, or wetland within the Tarawera River catchment that is to be used for a taking or discharge activity from or into the same waterbody for which a water or discharge permit is required is a Discretionary Activity to be considered by Environment Bay of Plenty:

(i) at the same time as any application for the water or discharge permit to which it relates;

(ii) with regard to the requirements of the conditions of the water or discharge permit to which it relates;

(iii) with regard to the criteria of Rules 12.2.5(m) and 12.2.5(o).

12.2.5(e) Subject to Rule 12.2.5(b)(iii), every excavation, drilling, tunnelling, or other disturbance of the bed of any river, lake, or wetland within the Tarawera River catchment is a Discretionary Activity, to be considered by Environment Bay of Plenty with regard to the matters of Rule 12.2.5(o).

12.2.5(f) Every reclamation or draining of the bed of any river, lake or wetland is a Discretionary Activity, to be considered by Environment Bay of Plenty with regard to the matters of Rule 12.2.5(o).

12.2.5(g) Except as provided by Rule 12.2.5(h), the reasonable ongoing maintenance, of an authorised structure in, on, under or over the bed of any river, lake or wetland is a Permitted Activity, subject to compliance with all the conditions of Rule 12.2.5(m).

12.2.5(h) Maintenance of any structure in, on, under or over the bed of any river, lake or wetland that results in the discharge of waste antifouling paint into water is a Discretionary Activity, to be considered by Environment Bay of Plenty with regard to the matters of Rule 12.2.5(o).

In the context of this Rule, waste antifouling paint is any paint or coating substance designed to emit any toxic substance.

12.2.5(i) The uncontrolled grazing of stock on the bed of any river, lake or wetland shall be a Prohibited Activity from 1 July 2005. For the purposes of this Rule, stock is uncontrolled if it is not effectively restrained from entering surface water by a fence or fencing device.

12.2.5(j) The introduction or planting of plants or parts of plants, whether exotic or indigenous, in, on, or under the bed of any river, lake, or wetland, is a Discretionary Activity, to be considered by Environment Bay of Plenty with regard to the matters of Rule 12.2.5(o), except that:

(i) planting for soil erosion and river control purposes, excluding the planting of pampas.

(ii) planting of native or indigenous plants as part of the preservation or restoration of the natural values of an environment;

are Permitted Activities, subject to compliance with conditions (i), (ii), (iii), (iv) and (v) of Rule 12.2.5(m); and

(iii) the planting of plants within that part of the area of the Rangitaiki-Tarawera Flood Control Scheme floodway that is within the Tarawera River catchment is a Prohibited Activity, **except that**:

(a) planting in the floodway to enhance habitat values is a Discretionary Activity to be considered by Environment Bay of Plenty with regard to the matters of Rule 12.2.5(o);

(b) planting of pastoral grasses in the floodway is a Permitted Activity subject to compliance with conditions (i), (ii), (iii), (iv) and (v) of Rule 12.2.5(m).

In the context of this Rule, pastoral grasses are grasses used predominantly for the feeding of stock.

12.2.5(k) Except as provided by Rule 12.2.5(l), every disturbance, removal, damage, or destruction of any plant, or part of any plant (whether exotic or indigenous) or the habitats of any such plants or of animals, in, on, or under the bed of any river, lake or wetland, is a Discretionary Activity, to be considered by Environment Bay of Plenty with regard to the matters of Rule 12.2.5(o).

12.2.5(l) The following activities are Permitted Activities, subject to compliance with conditions (i), (ii), (iii), (iv) and (v) of Rule 12.2.5(m):

(i) the removal of plants by tangata whenua for their traditional medicinal or cultural purposes;

(ii) the collection of plant samples for identified scientific purposes;

(iii) the maintenance (including cutting back) of plants planted for soil conservation purposes along river, lake, and wetland margins;

(iv) the removal of plants or part of plants identified as requiring removal in the *Bay of Plenty Regional Council Noxious Plants Authority Regional Programme for the Control of Noxious Plants: 7 May 1992* or equivalent document;

(v) the removal of plants or parts of plants that constitute a hazard to a waterway, or any authorised structure in a waterway, or any water surface recreational activity.

12.2.5(m) Permitted Activity Conditions:

The activity or structure shall:

(i) not cause erosion to the bank or the bed of the waterbody.

(ii) not destroy fish habitat or cause the loss of, aquatic plant or animal species beyond the site.

(iii) not damage or destroy any fish-spawning area, nor impede the free passage of migrating fish.

(iv) not stop or impede authorised public access to or along the waterbody.

(v) not be constructed, installed or sited in contravention of any legislation protecting archaeological or historic sites (see advisory notes below).

(vi) if located in, on, under or over the bed of the Tarawera River,

(a) not obstruct or divert any flood flow and be of a streamlined shape designed to shed flood flow and debris, and avoid scour.

(b) not extend over more than 10% of the horizontal component of the wetted bed of the river under mean flow conditions.

(vii) not:

(a) damage or destroy any other structure.

(b) interfere with any activity.

(c) restrict the drainage of land without the consent of the landowners.

(d) be a hazard to navigation.

(viii) be securely connected into the bank or bed of the river to a standard that will withstand a one in 100 year flood flow event.

(ix) be maintained in a structurally sound condition for the purpose for which it was constructed.

(x) not be painted with any antifouling coating designed to emit any toxic substance.

For the purpose of this rule, "activity" shall be taken to include the use, erection, reconstruction, placement, alteration, extension, removal or demolition of any structure or part of any structure, and where an activity is to install a structure at a site, the "site" is deemed to be the whole extend of the bed area covered by the structure.

Advisory notes:

1 Environment Bay of Plenty can provide information on flood and mean water flows and levels and hydrological and hydraulic guidelines, phone 0800 368 267 to enquire. To avoid hazard, any structure within a floodway or bed of a river or stream should be designed and constructed with regard to the publication: "Environment Bay of Plenty Hydrological and Hydraulic Guidelines". Copies of these guidelines are available on request from any Environment Bay of Plenty office.

2 This Permitted Activity rule does not authorise the modification, disturbance or destruction of any archaeological or historic site within the area of an activity or structure. Users of the rule should note that under Sections 98 and 99 of the of the Historic Places Act 1993 offence provisions apply whether or not a site is a recorded archaeological site.

Further advice on the requirements of the Historic Places Act 1993 can be sought from the local office of the Historic Places Trust in Tauranga, phone (07) 578 1219 or the national office of the New Zealand Historic Places Trust in Wellington, phone (04) 472 4341.

12.2.5(n) Every use of wheeled or tracked vehicles in any riparian area, river, lake or wetland, or its margin or bed, is a Permitted Activity, subject to the conditions that the vehicle use shall:

(i) not result in adverse effects from erosion or land instability.

(ii) not damage areas of significant indigenous vegetation.

(iii) not damage habitats of indigenous fauna or trout spawning areas.

(iv) not adversely affect the natural character of wetlands, lakes and rivers, and their margins and beds.

(v) not adversely affect amenity values, being those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.

12.2.5(o) When considering a resource consent application pursuant to Rules 12.2.5(c), 12.2.5(d), 12.2.5(e), 12.2.5(f), 12.2.5(h), 12.2.5(j), 12.2.5(k) and 12.2.5(p), Environment Bay of Plenty will have particular regard to, but not be limited to, the following matters:

(i) effects causing erosion or land instability;

(ii) effects on the hydraulic characteristics of any river, stream or wetland;

(iii) effects on the habitat of fish, biota, aquatic plants and wildlife;

(iv) hazards caused to navigation;

(v) effects caused by the occupation of public space;

(vi) effects on the spawning, free passage or migration of fish;

(vii) effects caused to public access to rivers and lakes and along their margins;

(viii) effects on any waahi tapu, urupa, or cultural or heritage place or value;

(ix) effects on natural character and amenity values, including recreation;

(x) effects on any other lawfully-existing structure, or activity;

(xi) effects caused by the use of any antifouling coating designed to emit any toxic substance;

(xii) maintenance requirements;

(xiii) monitoring requirements, including but not limited to the display of weatherproof identification numbers for compliance monitoring purposes;

(xiv) the requirements of Part II of the Resource Management Act 1991;

(xv) the requirements of sections 104 and 108 of the Resource Management Act 1991.

12.2.5(p) Every use, erection, reconstruction, placement, alteration, extension, removal or demolition of any structure on the bed of any lake within the Tarawera River catchment is a Discretionary Activity, to be considered by Environment Bay of Plenty with regard to:

(a) the matters of Rule 12.2.5(o); and

(b) the following matters, assessed with regard to effects on natural character and amenity values, and public and private security and safety:

(i) whether a structure that occupies public space and is used as a jetty should be required to remain open for public use at reasonable times without fee, charge or hindrance;

(ii) whether a structure that occupies public space and is used as a jetty should be required to be placed or sited so as to facilitate its shared use between neighbours;

(iii) whether the length or the structure, measured from the mean annual highest lake level shore line into the lake, should be limited to not exceed 12 metres;

(iv) whether the size of the structure, measured as the lake water surface area covered, should be limited to not exceed $15m^2$.

(v) whether the structure, in conjunction with adjacent structures, has an adverse effect on the natural character of the lake margin.

In the context of this Rule, a jetty is any structure that is fixed to land on or in the bed or shore of a lake, used principally to moor or service vessels, and includes any raft.

12.2.6 Principal Reasons

In the past the beds of rivers, lakes and wetlands have been managed in a random manner. Section 13 of the Resource Management Act 1991 makes it clear that the management of the beds of rivers, lakes and wetlands is a matter of primary importance. The intent of the Resource Management Act 1991 is most appropriately reflected in the need to avoid, remedy or mitigate adverse effects arising from the inappropriate subdivision, use and development of rivers and lakes. Due to the sensitive nature of river, lake and wetland bed environments in the Tarawera River catchment, Environment Bay of Plenty proposes that it is necessary to actively avoid, remedy or mitigate adverse effects on the aquatic environment and ecosystems, natural character, natural features and landscapes, and to protect amenity and heritage values. This approach is reflected in Rules contained in 12.2.5.

Environment Bay of Plenty proposes that existing structures on, in, under or over the beds of rivers, lakes and wetlands should continue as permitted activities, subject to compliance with a set of standard conditions. In general, existing structures have been previously assessed and do not usually have any significant adverse effects on the environment. Those structures that do have, or cause, any significant adverse effects on the environment, and cannot comply with the standard conditions, will be considered separately as discretionary activities.

The move to make the erection of new structures and excavations (Rules 12.2.5(c)) and 12.2.5(e)) discretionary activities is considered necessary in order to maintain control over the location of structures and minimise the number of additional structures located in, on, under or over the beds of rivers, lakes and wetlands.

This regional plan proposes that the reclamation or draining of river, lake and wetland beds within the Tarawera River catchment become a Discretionary Activity due to the significant localised and widespread effects which such activities cause. Reclamations proposed will be subject to compliance with conditions to ensure any resulting adverse effects on the environment are minimised.

Environment Bay of Plenty proposes that in order to protect the natural character of the environment of the beds of rivers, lakes and wetlands, the planting and removal of plants should be strongly controlled, the control being based on actual or potential effects of such activities. The removal or planting of plants for some purposes, such as soil conservation and weed control purposes, has been permitted, subject to standard conditions, in order to prevent unnecessary bureaucracy in what are generally considered positive or public good activities. A formal willow maintenance control programme is considered necessary in order that such removal is appropriately prioritised. The removal of derelict structures is considered necessary given the number of such structures in or on some parts of the beds or rivers and lakes. The over proliferation of such structures is considered to adversely affect the natural character and amenity value of many river and lake environments.

12.2.7 Anticipated Environmental Results

Anticipated environmental results stemming from the above objective, policies, and methods of implementations are:

12.2.7(a) Minimisation of the deposition of sediment in, on, over or under the beds of rivers and lakes.

12.2.7(b) The maintenance and enhancement of water quality and quantity.

12.2.7(c) The maintenance and enhancement of ecological values.

12.2.7(d) Respect for Maori values and maintenance of traditional rights of access and use.

12.2.7(e) Avoidance and minimisation of the effects of known natural hazards.

12.2.7(f) Avoidance and minimisation of any adverse effects on archaeological or traditional sites.

12.2.7(g) Avoidance and minimisation of the adverse effects of works or activities on natural character and landscape values.

12.2.7(h) The integration of works and activities with the natural character and landscape values of the environment.