

PART 5 CONSERVATION OF NATURAL FEATURES**5.1 CONSERVATION ISSUES****5.1.1 VEGETATION**

Stands of remnant native forest held in private ownership can be felled in the absence of legal protection. In addition, all areas of indigenous forest within the District are potentially at risk of physical damage from amongst other things uncontrolled stock grazing, wild goats, possums and plant pests.

The damage or destruction of indigenous and exotic vegetation not only compromises wildlife habitats but also removes an important element of Franklin's landscape.

5.1.2 WETLANDS

Although action has been taken to prevent any further decline in water levels in the Whangamarino Wetland, declining water levels pose a significant threat to other wetlands generally. If large areas of wetland are allowed to dry out, ecological and recreational values will be lost and there could be further invasion by willows and other exotic plants.

Drainage and reclamation works and uncontrolled stock grazing pose a significant threat to numerous other wetlands throughout the District. Stock grazing on the edges of the Awhitu dune lakes poses a threat to vegetation and the physical integrity of the wildlife habitats there.

Stream ecosystems are affected by low water flows and the discharge of contaminants into waterways.

5.1.3 BIRD HABITATS

Horticultural and 'lifestyle' block development in the Karaka and Waiiau Pa areas is placing pressure on the wading bird habitat along the southern shores of the Manukau Harbour. Some practices, such as shelter belt planting, can render land adjoining the foreshore unsuitable for bird roosting. Activities such as lifestyle block development that result in a greater human presence, and consequently domestic animals, on or near the foreshore pose a particular threat to the habitat. Degradation of the quality and quantity of natural freshwater available to the habitat, as a result of damming and other practices, is also of concern.

Similarly, the wading bird habitat and wetlands on the shores of the Firth of Thames are potentially at risk. Unrestricted public access to the fragile wetland environment and important roosting and nesting areas in the shell banks is undesirable. As with the southern shores of the Manukau, land uses that result in a greater human presence on or near the foreshore have the potential to damage this internationally important habitat. Further housing development and mineral exploitation pose a particular threat.

5.1.4 LANDFORMS

The Miranda Chenier Plain and Whakatiwai Gravel Ridges are outstanding landforms on the Western coastline of the Firth of Thames. Quarrying is a potential threat to the integrity of these landforms. Quarrying and development activities also threaten other landforms in the District.

The Franklin area contains numerous volcanic craters, shield volcanoes and scoria cones that contribute to the distinctive character of the District.

The important landscape values of Pukekohe Hill are being compromised by urban development and some horticultural practices such as shelter belt planting.

5.1.5 GEOLOGICAL FEATURES

The sequence of greywacke rocks south of the Waikato River provides an important record of the history of this part of New Zealand and its biota as it lay along the coast of the ancient continent of Gondwana between 120 million and 200 million years ago. The limestone and papa rocks that overlie these older rocks document several significant episodes of submergence beneath the sea and intervening upheavals that affected the Franklin District between 40 and 20 million years ago. The best exposure of representative examples of these rocks need protection and management for future generations to study and learn from.

5.1.6 COASTAL ENVIRONMENT

The West Coast adjoins the Tasman Sea and is a rugged stretch of coastline rising sharply from the sea to the ridge line. It is largely undeveloped except at Port Waikato. In general terms the coastal environment can be defined as the area between the sea and the first ridgeline. For practical reasons it is defined as 60 metres inland from mean high water springs. The issues along this coastline include:

- preservation of its natural wilderness character:

The West Coast coastal environment has retained an undeveloped and wild natural character which is a result of its exposed nature and rugged topography. The area is composed mainly of rugged and often eroding coastal cliffs, high energy surf beaches, and two complex tidal inlets at the entrances to the Waikato River and the Manukau Harbour. Some significant remnant areas of native coastal vegetation exist on the Awhitu Peninsular. While the nature of this area limits opportunities for subdivision, use and development, uses in this area should retain, and where possible enhance and restore the unique coastal character of this area.

- coastal erosion: (refer Part 7: NATURAL HAZARDS)

Coastal erosion is in some areas occurring at rapid rates. It is not only the result of the sea but also the effect of wind on coastal dune systems. This is a naturally occurring process. Appropriate and sustainable landuses can reduce erosion and also help restore the natural character to the coastal environment. It is important that existing sand dune systems are protected and development is kept as far away from such areas as possible. The Coastal Protection yard offers a first line of defence aimed at avoiding the problem.

The East Coast adjoining the Firth of Thames contains the settlements of Kaiarau, Miranda and Whakatiwai. The coastal environment consists of a broad flat expanse rising towards the Hunua Ranges. Rather than set a rigid line the coastal environment in terms of the East Coast is defined by the policies and methods set out in Objective 5.2.2. The issues along this coastline include:

- protection of the values and natural functions of the Firth of Thames:

The Firth of Thames, falls within the jurisdiction of the Waikato and Auckland Regional Council and is covered by the respective Proposed Regional Coastal Plan. The values and natural functions of the Firth of Thames are however affected by adjoining landuse activities. It is therefore important that there is a consistent approach between the Franklin District Council and the Regional Council's in order to achieve integrated management.

- protection of significant wildlife habitats, landscape and natural features:

These issues are referred to under the relevant headings on page 5-1 and 5-2.

- servicing of existing settlements:

These settlements are constrained by low lying areas subject to inundation and high water tables. Some areas are also unstable and unsuited for extensive development.

- the area's tourism value:

The East Coast Road has been designated a Scenic Tourist Route and as a consequence development pressures are likely to result. Within the life of this District Plan further work on the issue of tourism is required.

The remaining area of coastline adjoins the Manukau Harbour. This area contains a wide variety of physical and ecological features which contribute to the functioning of the Manukau Harbour ecosystem. The coastal environment in this area is therefore complex and variable. There are several settlements along the coastline ranging in size from Clarks Beach to Wattle Bay as well as considerable rural subdivision into predominantly four hectare lots. Rather than set a rigid line the coastal environment in terms of the Manukau Harbour is defined by the policies and methods set out in Objective 5.2.2. The issues along this coastline include:

- protection of the values and natural functions of the Manukau Harbour:

The Manukau Harbour falls within the jurisdiction of the Auckland Regional Council and is covered by the Proposed Regional Plan Coastal. The values and natural functions of the Manukau Harbour are however affected by adjoining landuse activities. It is therefore important that there is a consistent approach between the Franklin District Council and the Auckland Regional Council in order to achieve integrated management.

- servicing of and expansion of existing settlements:

The Plan contains assessment criteria aimed at controlling any adverse effects arising from coastal settlement expansion. (Refer Part 19 Objectives 19.2.1 and 19.2.2). The servicing of these settlements particularly sewerage systems will be controlled by compliance with discharge permits administered by the Regional Councils.

- protection of significant wildlife habitats:

These issues are referred to under the relevant headings on page 5-1 and 5-2.

- Coastal erosion: (refer Part 7: NATURAL HAZARDS)

Coastal erosion is affecting existing settlements to varying degrees. Development at such settlements will have to take into account the actual and or potential effects of coastal erosion, including that caused or accelerated by sea level rise. The undeveloped areas predominantly zoned rural have a Coastal Protection yard requirement which offers a first line of defence aimed at avoiding the problem.

5.2 OBJECTIVES POLICIES AND METHODS

5.2.1 OBJECTIVE - ECOSYSTEMS

To avoid remedy or mitigate the adverse effects of activities on the life supporting capacity of indigenous ecosystems.

Policies:

1. To control the effects of activities where they compromise, directly or indirectly, the life supporting capacity of any indigenous ecosystem including those ecosystems which cross the boundary of Mean High Water Springs.
2. That priority be given to avoiding any adverse effects of land subdivision, use or development on those areas identified in Schedule 5.A.

Methods of Implementation of Policies:

Monitoring the effects of *Permitted* activities and resource consents on ecosystems and, where appropriate, taking enforcement action. (Refer to Part 13).

Assessing resource consent applications against criteria for ecosystems (refer to Rule 53).

Informing people how to minimise adverse effects on the functioning of ecosystems.

Reasons and Explanation for Objective, Policies and Methods:

Ecosystems are self-regulating communities of plants and animals interacting with one another and with their "non-living" environment (air, water and the like).

Some activities can directly or indirectly compromise the interactions within an ecosystem. Particularly where the activity has an adverse effect on natural resources upon which the ecosystem relies.

The ecosystem may be located some distance from the activity and yet still be affected. For example, if an activity results in the degradation of downstream water quality then some distant ecosystem may be compromised through lack of fresh water. It is always necessary to consider the wider effects of activities.

Anticipated Result:

- The avoidance or mitigation of effects that would be adverse for the functioning of ecosystems.

5.2.2 OBJECTIVE - BODIES OF WATER

To preserve the features, elements and systems which contribute to and maintain the natural character of the West Coast, Firth of Thames and Manukau Harbour coastal environments, and wetlands, lakes and rivers, and their margins, and to ensure that they are protected from inappropriate subdivision, use and development.

Policies:

Activities within the COASTAL ENVIRONMENT should:

1. Avoid adversely affecting the areas and or features identified in Schedule 5A.
2. Avoid, remedy or mitigate adverse effects on the following areas or features:
 - (i) areas of indigenous vegetation or habitats of indigenous fauna which derive their intrinsic character from a coastal location or which contribute to the natural character of the coastal environment.
 - (ii) any landform which is a substantial part of the coastal environment.
 - (iii) any feature which substantially contributes to the visual quality or amenity value of the coast.
 - (iv) the identified characteristics of special spiritual, historical or cultural significance to Maori.

COASTAL ENVIRONMENT AND WETLANDS, LAKES AND RIVERS, AND THEIR MARGINS:

3. That appropriate vegetation cover, consistent with the natural character and intrinsic values of these areas remains or is reinstated following development.
4. The subdivision, use or development does not introduce effects which would be of a scale or nature which is inconsistent with the existing elements of the natural character of the area.
5. Particular regard shall be had to the cumulative effects of activities to protect the values and functions of the area.
6. To provide for public access where practicable: Public access may not be practicable where it is necessary to:
 - protect areas identified in Schedule 5A.
 - be consistent with conservation values
 - protect Maori cultural values
 - protect public health and safety
 - ensure a level of security consistent with the purpose of a resource consent and in other exceptional circumstances.
7. That recreational uses of lakes, rivers and their islands, and wetlands be allowed where such uses do not adversely affect the particular conservation values of the area or resource.

Note: Policies in Part 7: Natural Hazards are also relevant.

Methods of Implementation of Policies:

By defining the coastal environment as the environment in which the coast is a significant element or part. Key components include:

- vegetation or habitats adjacent to, or connected with the coastal marine area which derives its intrinsic character from a coastal location or which contributes to the natural character of the coastal environment;
- any landform adjacent to the Coastal Marine Area which has been or is presently being formed or modified by processes of coastal erosion or deposition;
- any feature which substantially contributes to the visual quality or amenity value of the coast;

- areas identified in Schedule 5A;

Within the coastal environment defining a coastal protection yard of 60 metres from Mean High Water Springs where:

- specific controls on structures are imposed (Refer to Part 7 and the relevant Zone rules on "development" standards);
- the effects on the natural character of significant earthworks are assessed through a *Discretionary (RA)* activity application.

Within the areas adjoining lakes, rivers and streams defining a setback yard of 30 metres from banks where:

- specific controls on structures are imposed (Refer to Part 7 and the relevant Zone rules on "development" standards);
- the effects on the natural character of significant earthworks are assessed through a *Discretionary (RA)* activity application.

Assessing resource consent applications in terms of their effect on the natural character of the coastal environment, wetlands, and lakes and rivers and their margins.

Checking for compliance with the *Waikato Regional Coastal Plan* and the *Auckland Regional Plan Coastal*.

Requiring resource consent applications for activities that have the potential to visually compromise or prevent public access to the coastal environment or bodies of water (Refer to relevant Zone "activity assessment" criteria).

Providing for some types of active recreation by way of resource consents (Refer to relevant Zone rules on "activities").

Reasons and Explanation for Objective, Policies and Methods:

The preservation of the natural character of the coastal environment, wetlands, and lakes and rivers and their margins and the protection of them from inappropriate subdivision, use and development is a matter of national importance under the Act. Maintaining and enhancing public access to them is also a matter of national importance. The District Council is required to recognise and provide for these matters.

Requiring a resource consent application allows the Council to:

- refuse consent if the adverse effects of an activity cannot be adequately controlled, or
- impose conditions to minimise and control any such adverse effects.

Anticipated Results:

- The coastline, wetlands, lakes and rivers are not visually compromised or otherwise adversely affected by activities;
- Continued public access to bodies of water where this will not compromise conservation values.

5.2.3 OBJECTIVE - SUSTAINABLY MANAGING NATURAL HERITAGE RESOURCES

To sustainably manage the natural heritage resources of the District by:

- Protecting the following items from inappropriate subdivision, use, and development:
 - outstanding natural features and landscapes;
 - areas of significant indigenous vegetation, and
 - significant habitats of indigenous fauna including trout and salmon;
- Ensuring that representative samples of natural features, areas of indigenous vegetation, and habitats of indigenous fauna that are of value at a Regional and District level are protected.

Policies:

1. Adverse effects of land use activities that have the potential to damage or destroy the values of those items listed in Schedules 5A, 5B and 5C shall be avoided.
2. Significant natural features, areas of indigenous vegetation and habitats of indigenous fauna not listed in Schedule 5A which contribute to the rural or natural character of the area should be retained. In the assessment of the significance of such heritage resources the following criteria will be taken into account:

Whether the native bush:

- is of sufficient size and shape to maintain its intrinsic qualities;
- consists of a coherent well-developed canopy of native species;
- consists of a range of native species appropriate to that forest type;
- contains a significant percentage (at least 25 per cent) of mature native trees;
- represents a significant or prominent landscape feature;
- may contain native species threatened in the Franklin District;
- the area has wildlife habitat values, or provides or contributes to a habitat corridor facilitating the movement of wildlife species in the local area.

Whether natural features and habitats of indigenous fauna are:

- are of sufficient size and shape to maintain its intrinsic qualities;
- the habitat of threatened species (as defined by IUCN criteria);
- an area of recognised wildlife or earth science significance;
- a freshwater wetland;
- an uncommon indigenous vegetation community;
- Contribute to the National, Regional or District geological heritage.

Methods of Implementation of Policies:

Policy 1:

Outstanding natural features are listed in Schedule 5A (*Updated information on Sites of Special Wildlife Interest in the Department of Conservation's Waikato Conservancy is currently unavailable*). Outstanding natural features shall include:

- Sites listed under the RAMSAR Convention (a convention on wetlands of international importance);
- "Sites of Special Wildlife Interest" ranked as having *outstanding, high, moderate-high* or *moderate* wildlife value;
- Recommended Areas for Protection under the "Protected Natural Areas Programme";
- Geological sites and landforms listed as being of *national importance* in the New Zealand Geopreservation Inventory

Further items be added to Schedule 5A by way of a plan change when sites meet the specified criteria or are from recognised data sources. The specified criteria include:

- the extent to which an area is representative or characteristic of the natural diversity in an ecological district or reflects important or representative aspects of New Zealand's geological history;
- the presence of a threatened species, or the feature's rarity, or uncommon, special or distinctive features;
- the extent to which a natural area can maintain its ecological viability over time;
- the extent to which an area is of sufficient size and shape to maintain its intrinsic value;
- the relationship a natural feature has with its surrounding landscape, and the extent of buffering or protection from external adverse effects;
- the natural diversity of species of flora and fauna, biological communities and ecosystems, geological or edaphic features such as landforms and land processes, parent material, and records of past processes;
- the diversity of ecological patterns, such as the change in species composition or communities along environmental gradients;
- the extent to which an area is still reflective of its original natural character and quality;
- the extent to which an area provides an important habitat for species at different stages of their life cycle;
- the importance of an area to Tangata Whenua.

The items in Schedule 5A are protected through one of the following methods:

- Inclusion in a Conservation Zone:

Waikato River and associated wetlands and Hunua Ranges

- A resource consent is required for activities that would modify, damage, or destroy any area or item identified in Schedule 5A including disturbance by earthworks:

All other sites

- In public ownership generally with a Reserve Status.

Features and sites identified in Schedule 5A shall be identified in *Land Information Memorandums*.

Sites of Importance (such as the Pukekohe Hill Special Policy Area) are listed separately in Schedule 5C.

Policy 2:

By adopting incentives for the protection of heritage resources including:

- By allowing the creation of a "rural-residential" lot where the natural feature is physically and legally protected. (Rule 22.9 Conservation lot);
- Up to 100% rates remission is provided for under the *Rating Powers Act 1988*. The Council's current '*Policy for Rates Relief for Protected Natural Areas*' provides for relief for land comprising natural features that has been appropriately physically and legally protected (or classified) on a voluntary basis, usually unrelated to subdivision.

Other Methods:

That a liaison programme be established whereby individual landowners known to have significant natural features on their property are personally approached and informed of the

nature and significance of those features and available methods and incentives for protecting them.

That a range of other low-cost methods be used to inform and educate the community at large including:

- Community newspapers, newsletters, and public displays of information leaflets.
- Conservation kits, to be distributed to individual landowners in response to enquiries to the Council, or to local schools and interest groups.
- Public meetings with groups of landowners and established interest groups, including ratepayer associations.

That a *Conservation Information Base* be established and maintained, containing information on the type, location, significance, vulnerability, condition and legal protection status of natural features within the District. Data from the *Protected Natural Areas Programme*, *Sites of Special Wildlife Interest* and the New Zealand Geological Society's *Geopreservation Inventory* will form the core of the *Conservation Information Base*. The information base will be updated on an ongoing basis, with the exchange of information between agencies and results from the monitoring programme.

That a joint monitoring programme be implemented with the Department of Conservation, Regional Councils, Auckland/Waikato Fish and Game Council, Royal Forest and Bird Protection Society and other relevant public agencies and interest groups, to assess, on an ongoing basis, the condition of natural features within the District.

Provisions of the Forest Amendment Act 1949 as amended in 1993, prohibits the export and milling of indigenous timber unless a sawmill is registered, and the timber is taken from an area subject to a sustainable forest management plan or permit, or under one of the few exceptions to the Act. The Act does not legislate against the clearance of indigenous forest for conversion to an alternative landuse or the use of timber for firewood. The Forests Act is administered by the Ministry of Forestry.

Reasons and Explanation for Objective, Policies and Methods:

The Council must balance its obligations under the Resource Management Act to protect outstanding natural heritage resources against its experience that a voluntary approach is the most effective long-term method of ensuring protection.

The Franklin District contains a number of outstanding natural features, the protection of which is a matter of *national importance* under the Act. The Plans approach is therefore to protect through regulation only the outstanding or significant heritage resources and to list these in a schedule contained within the plan. (Schedule 5A).

In determining what constitutes an outstanding natural feature, data from the Protected Natural Areas Programme (where available), Sites of Special Wildlife Interest and the Geopreservation Inventory gives the most 'robust' overview of features within the District. That data includes the significance of features, ranked according to a nationally accepted system. Different features can be compared in terms of their respective significance on an objective basis and an overall relativity is maintained.

Heritage resources which are not outstanding or significant but contribute to the character of the District are encouraged to be protected by incentives and where appropriate regulation when assessing a resource consent.

A voluntary and pro-active approach fosters greater co-operation from landowners who would otherwise be opposed to restrictive controls being imposed on the use of their land in respect of natural features. Landowners should be made aware of the existence and significance of any such features on their property. There need to be tangible incentives to conserve.

The Act requires the District Council to monitor the state of Franklin's natural environment, on an ongoing basis, to determine whether conservation objectives and policies are suitable and are, in practice, effective. This requires a good knowledge of the District's natural features and implies the need for a comprehensive and regularly updated information base.

The *Protected Natural Areas Programme* seeks to protect areas which most faithfully represent indigenous flora and fauna, distinctive ecosystems and landscape. New Zealand is divided into 268 "*ecological districts*" and a "Protected Natural Areas" survey is intended to be carried out for each of these *districts*.

All vegetation, wildlife and land forms are surveyed and a comprehensive data base established for each *district*. Those areas considered most representative of the *ecological district*, according to a nationally accepted ranking system, are then recommended for protection.

The Franklin District contains all or part of five separate *ecological districts* - Awhitu, Manukau, Hunua, Raglan and Meremere. Within Franklin, only the Hunua *ecological district* has been surveyed to date.

The former New Zealand Wildlife Service introduced *Sites of Special Wildlife Interest* as a means of assessing wildlife habitats for the creation of wildlife refuges. Sites of Special Wildlife Interest have been identified throughout Franklin District and are ranked in order of significance according to a nationally accepted system. (Schedule 5A) Information on flora and fauna, as it relates to habitat, will be held for each *Site* by the District Council.

Information from these sources is in a form that can readily be updated as resurveys and further investigative work are completed.

District Council staff do not have the expertise to identify the significance and vulnerability of many natural features or assess their condition. The Council therefore needs to work in conjunction with agencies that have such expertise.

Information empowers landowners to make informed choices about the future use of their land. Without information many landowners would be unaware of the existence of, or significance of natural features on their property, let alone opportunities and incentives to protect them.

Anticipated Results:

- Outstanding natural features are protected with certainty;
- A representative sample of natural heritage resources is protected;
- A willingness by landowners to achieve conservation objectives in *partnership* with the District Council and wider community;
- A greater public awareness of the type, location, significance and vulnerability of natural features, available methods of protection, and general conservation issues facing the District.

SCHEDULE 5A: CONSERVATION OF OUTSTANDING NATURAL FEATURES

(For each feature the adverse effects and type of protection afforded are listed).

A. SITES OF SPECIAL WILDLIFE INTEREST

(Note: These sites/areas are identified on the "Conservation" Plan Map 103).

Outstanding Wildlife Value

- | | |
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| <p>1)</p> | <p>KARAKA, POLLOK SPIT, SEAGROVE, WAIPIPI ROOSTS - Manukau Harbour foreshore.</p> <p><u>Types of Protection</u></p> <p>District Plan:</p> <ul style="list-style-type: none"> • Activity lists • General performance Standards: <ul style="list-style-type: none"> 23.6.3 Development Setbacks 23.6.5 Outstanding Natural features. • Assessment criteria for resource consents. <p><u>Adverse effects</u></p> <ul style="list-style-type: none"> - Loss of line of site for birds through planting of trees, major earthworks, large structures. - Changes in freshwater drainage patterns. - Deposition. - Shell extraction. - Disturbances - general public access, motorbikes, dogs. |
| <p>2)</p> | <p>HUNUA RANGES (in the ownership of the Auckland Regional Council and including the Hunua Falls Scenic Reserve in the Council's ownership).</p> <p><u>Type of Protection</u></p> <p>District Plan conservation zoning (Forest Conservation Zone) and is a Regional Reserve.</p> <p><u>Adverse effects</u></p> <ul style="list-style-type: none"> - Modification, damage or destruction of the native bush and wildlife habitats. - Vegetation clearance and fragmentation. - Reduction in bush quality and naturalness through pests and weeds. - Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals. - Loss of threatened species. |
| <p>3)</p> | <p>FIRTH OF THAMES</p> <p><u>Type of Protection</u></p> <p>Part of this area is within the coastal marine area and within the jurisdiction of the Regional Council. The adjoining landward component of this area is controlled through activity lists, development setbacks and assessment criteria for resource consents. A significant area of land immediately adjoining the coast is held in public ownership with a small area of private land being protected by virtue of a QE 11 covenant.</p> <p><u>Adverse effects</u></p> <ul style="list-style-type: none"> - Loss of vegetated coastal edge through vegetation clearance and fragmentation. - Changes in freshwater drainage patterns. - Deposition or siltation. - Shell extraction. - Disturbances - general public access motorbikes, dogs, large structures. |
| <p>4)</p> | <p>WHANGAMARINO WETLAND</p> |

Type of Protection
 District Plan conservation zoning. (Wetland Conservation Zone).

Adverse effects

- Drainage, reclamation of the swamp.
- Vegetation clearance.
- Modification of hydrological regimes.
- Loss of threatened species.
- Weed invasion.
- Siltation.

5) WAIKATO RIVER AND WETLANDS

Type of Protection
 This area is protected by a District Plan conservation zoning. (Wetland Conservation Zone).

Adverse effects

- Vegetation clearance.
- Loss of threatened species.
- Weed invasion.
- Reclamation, siltation.
- Degradation in water quality.
- Modification damage or destruction of wildlife habitats.

High Wildlife Value:

6) MANGATAWHIRI SWAMP - State Highway 1

Type of Protection
 District Plan conservation zoning. (Wetland Conservation Zone) as well as a small portion being protected by a Council covenant.

Adverse effects

- Drainage reclamation of the swamp.
- Vegetation clearance.
- Modification of hydrological regimes.
- Loss of threatened species.
- Weed invasion.
- Siltation.

Moderate - High Wildlife Value:

7) AWHITU REGIONAL PARK SWAMP

Type of Protection
 Regional Park Status

Adverse effects

- Drainage reclamation of the swamp.
- Vegetation clearance.
- Modification of hydrological regimes.
- Loss of threatened species.
- Weed invasion.
- Siltation.

8) LAKE POKORUA

Type of Protection
 District Plan: • Activity lists

- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Reduction in water quality.
- Vegetation clearance.
- Weed invasion .
- Reclamation.

9) MOTIONS ROAD WETLAND

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Drainage, reclamation of the swamp.
- Vegetation clearance.
- Modification of hydrological regimes.
- Loss of threatened species.
- Weed invasion.
- Siltation.

10) ALLCOCK ROAD BUSH

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.5 Outstanding Natural features.
- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

Moderate Wildlife Value

11) BIG BAY ESTUARY, Big Bay Road

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Loss of vegetated coastal edge.
- Changes in freshwater drainage patterns.
- Deposition or siltation.
- Modification, damage or destruction of estuarine vegetation and wildlife habitats.

12) KEMP ROAD BUSH

Type of Protection

Part of the Bush is protected by a QE 11 Covenant.

District Plan:

- Activity lists
- General performance Standards:

23.6.5 Outstanding Natural features.

- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

13) MASSEYS BUSH

Type of Protection

The majority of the bush is protected by a Council covenant. The remaining small portion is subject to:

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

14) PEHIAKURA LAKE I - III, Douglas Road

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Reduction in water quality.
- Vegetation clearance.
- Weed invasion, - reclamation.

15) GLEESON ROAD GULLY - BUSH I - IV

Part of the bush is protected by a QE 11 covenant. The remaining area is subject to:

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

16) WAIPIPI SCENIC RESERVE

Reserve Status. Most of the Bush is under a QE 11 covenant.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

17) LAKE WHATIHUA

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Reduction in water quality.
- Vegetation clearance.
- Weed invasion.
- Reclamation.

18) LAKE ROTOITI - Karioitahi Road

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Reduction in water quality.
- Vegetation clearance.
- Weed invasion.
- Reclamation.

19) LAKE PUKETI - Karioitahi Road

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Reduction in water quality.
- Vegetation clearance.
- Weed invasion.
- Reclamation.

20) OTAUA BUSH - Maioro Road

Type of Protection

District Plan:

- Activity lists
- General performance Standards:

23.6.3 Development Setbacks
 23.6.5 Outstanding Natural features

- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

21) LAKE OTAMATEAROA - Whiriwhiri Road

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Reduction in water quality.
- Vegetation clearance.
- Weed invasion.
- Reclamation.

22) HERMITAGE ROAD BUSH

Type of Protection

Almost all the bush is protected by Council Covenant. The remaining small area is subject to:

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

23) DON URQUHARTS SWAMP- Urquharts Road

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Drainage, reclamation of the swamp.
- Vegetation clearance.
- Modification of hydrological regimes.
- Loss of threatened species.
- Weed invasion.
- Siltation.

24) PATUMAHOE ROAD SWAMP (Hickeys Spring)-Patumahoe Road

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features

• Assessment criteria for resource consents.

Adverse effects

- Drainage, reclamation of the swamp.
- Vegetation clearance.
- Modification of hydrological regimes.
- Loss of threatened species.
- Weed invasion.
- Siltation.

25) SOMMERVILLE ROAD BUSH - Sommerville Road- Glenbrook Station Road

Type of Protection

The majority of the bush is protected by Council Covenant. The remaining area is subject to:

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

26) BALD HILL BUSH - Bald Hill Road

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

27) SCENIC RESERVE (WHANGAPOURI POND) - Manuwai Lane

Type of Protection

Reserve Status

Adverse effects

- Reduction in water quality.
- Vegetation clearance.
- Weed invasion.
- Reclamation.

28) HOSPITAL BUSH - Great South Road

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.

- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

29) ALEXANDRA REDOUBT BUSH - Alexandra Redoubt Road.

Type of Protection

Reserve Status and area of bush on private land protected by Council Covenant.

District Plan:

- Activity lists
- General performance Standards:
- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

30) GILLESPIE ROAD BUSH - Gillespie Road

Type of Protection

Some of the bush is protected by Council Covenant. The rest is subject to:

District Plan:

- Activity lists
- General performance Standards:
23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

31) GARVIE ROAD BUSH -Garvie Road

Type of Protection

Some of the bush is protected by Council Covenant. The rest is subject to:

District Plan:

- Activity lists
- General performance Standards:
23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

32) WAIROA GORGE BUSH - Sky High Road

Type of Protection

Some of the bush is partly DOC Scenic Reserves.

District Plan:

- Activity lists
- General performance Standards:
23.6.3 Development Setbacks
23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

33) POURAUREROA STREAM BUSH - S.H.2.

Type of Protection

Some of the bush is protected by Council Covenant the rest is subject to:

- District Plan:
- Activity lists
 - General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
 - Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

34) MT WILLIAM WALKWAY - McMillan Road

Type of Protection

Some of the bush is protected by Council covenants and some partly DOC Scenic Reserves the rest is subject to:

- District Plan:
- Activity lists
 - General performance Standards:
 - 23.6.5 Outstanding Natural features
 - Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

35) UPPER MANGATAWHIRI RESERVOIR - Waterline Road

Type of Protection

- District Plan:
- Activity lists
 - General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
 - Assessment criteria for resource consents.

Adverse effects

- Reduction in water quality.
- Vegetation clearance.
- Weed invasion.
- Modification , damage, or destruction to the reservoir margins.

36) SHIPHERDS SCENIC RESERVE - Aka Aka Road
Type of Protection
 Reserve Status and bush on private land is protected by Council Covenant.
Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

37) PONGA (MIDDLETON) ROAD FOREST
Type of Protection
 District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Modification, damage or destruction of the native bush and wildlife habitats.
- Vegetation clearance and fragmentation.
- Reduction in bush quality and naturalness through pests and weeds.
- Reduction in regeneration ability through stock grazing, weed invasion, browsing of wild animals.
- Loss of threatened species.

38) AKA AKA WETLAND - Masters Road
Type of Protection
 District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Drainage and reclamation of the wetland.
- Vegetation clearance.
- Modification of hydrological regimes.
- Loss of threatened species.
- Weed invasion.
- Siltation.
- Stock damage - grazing and trampling of wetland vegetation.

39) BOILER GULLY ROAD WETLAND
Type of Protection
 District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Drainage and reclamation of the wetland.
- Vegetation clearance.
- Modification of hydrological regimes.
- Loss of threatened species.
- Weed invasion.
- Siltation.

- Stock damage - grazing and trampling of wetland vegetation.

40) KARAKA WETLAND - Kidd Road

Type of Protection

- District Plan:
- Activity lists
 - General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
 - Assessment criteria for resource consents.

Adverse effects

- Drainage and reclamation of the wetland.
- Vegetation clearance.
- Modification of hydrological regimes.
- Loss of threatened species.
- Weed invasion.
- Siltation.
- Stock damage - grazing and trampling of wetland vegetation.

41) LYONS ROAD WETLAND

Type of Protection

- District Plan:
- Activity lists
 - General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
 - Assessment criteria for resource consents.

Adverse effects

- Drainage and reclamation of the wetland.
- Vegetation clearance.
- Modification of hydrological regimes.
- Loss of threatened species.
- Weed invasion.
- Siltation.
- Stock damage - grazing and trampling of wetland vegetation.

SCHEDULE 5B: IMPORTANT GEOLOGICAL SITES AND LANDFORMS LISTED IN THE NEW ZEALAND GEOPRESERVATION INVENTORY

(Note: These sites/areas are not identified on the "Conservation" Plan Map 103).

International Importance

1) MIRANDA CHENIER PLAIN AND COASTAL FLATS
5 kilometres north of Miranda, West Coast of Firth Of Thames.
Type of Protection
 District Plan: • Activity lists
 • General performance Standards:
 23.6.3 Development Setbacks
 23.6.5 Outstanding Natural features
 • Assessment criteria for resource consents.

Adverse effects
 - Mining/extraction.
 - Deposition, reclamation, roadworks and earthworks.
 - Loss of ridge sequence through earthworks and other landuses.

National Importance

2) DAFF ROAD JURASSIC PLANT BEDS
In farm quarry, 200 metres north of Putataha tuff ring and 400 metres south of farm airstrip, 2 kms south of end of Daff road.
Type of Protection
 District Plan: • Activity lists
 • General performance Standards:
 23.6.3 Development Setbacks
 23.6.5 Outstanding Natural features
 • Assessment criteria for resource consents.

Adverse effects
 - Mining/extraction.
 - Deposition, reclamation, roadworks and earthworks.

3) KAAWA CREEK - NGATUTURA BAY SECTION
In coastal cliffs for 1 kilometre south of Kaawa creek mouth.
Type of Protection
 District Plan: • Activity lists
 • General performance Standards:
 23.6.3 Development Setbacks
 23.6.5 Outstanding Natural features
 • Assessment criteria for resource consents.

Adverse effects
 - Mining/extraction.
 - Deposition, reclamation, roadworks and earthworks.
 - Natural and human induced erosion and uncontrolled vegetation growth.

4) KELLYVILLE TUFF RING

East of North Island Main Trunk Railway at Mercer Township.

Type of Protection

- District Plan:
- Activity lists
 - General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
 - Assessment criteria for resource consents.

Adverse effects

- Mining/extraction.
- Deposition, reclamation, rail/roadworks and earthworks.

5) MOEWEKA QUARRY JURASSIC FAUNA

Quarry just north of Ponganui Road, Wairamarama.

Type of Protection

- District Plan:
- Activity lists
 - General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
 - Assessment criteria for resource consents.

Adverse effects

- Mining/extraction.
- Deposition, reclamation, rail/roadworks and earthworks.

6) ONEWHERE TUFF RING

Bounds Kaipo Flats approximately 1-2 Kilometres north-west of Onewhero Township.

Type of Protection

- District Plan:
- Activity lists
 - General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
 - Assessment criteria for resource consents.

Adverse effects

- Mining/extraction.
- Deposition, reclamation, roadworks and earthworks.
- Modification of geomorphic integrity of ring.

7) OPUATIA CLIFF JURASSIC FAUNA

North of Ponganui Road, on Opuatia stream Wairamarama.

Type of Protection

- District Plan:
- Activity lists
 - General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
 - Assessment criteria for resource consents.

Adverse effects

- Mining/extraction.
- Deposition, reclamation, roadworks and earthworks.

8) PORT WAIKATO TO TUAKAU BRIDGE ROAD JURASSIC SECTION

South side of Waikato River, section alongside Port Waikato- Tuakau Bridge Road between points 0.5 kilometres east of Daff Road and 2 kilometres west of Daff Road.

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Mining/extraction.
- Deposition, reclamation, roadworks and earthworks.

9) PUKEKAWA III SCORIA CONE

Adjacent and to the west of State Highway 22 just north-west of Pukekawa township.

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Mining/extraction.
- Deposition, reclamation, roadworks and earthworks.
- Loss of form and integrity of feature.

10) PUKEKOHE EAST TUFF RING

Lies to the north-west of the intersection of the Pukekohe East Road and Runciman Road, approximately 3.5 kilometres east of Pukekohe.

Type of Protection

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Mining/extraction.
- Deposition, reclamation, roadworks and earthworks.

11) COULTHARDS SCENIC RESERVE SOILS

Type of Protection

Reserve Status

District Plan:

- Activity lists
- General performance Standards:
 - 23.6.3 Development Setbacks
 - 23.6.5 Outstanding Natural features
- Assessment criteria for resource consents.

Adverse effects

- Mining/extraction.
- Deposition, reclamation, roadworks and earthworks.

12) PATUMAHOE SCENIC RESERVE SOILS

Type of Protection

Reserve Status	
District Plan:	<ul style="list-style-type: none"> • Activity lists • General performance Standards: <ul style="list-style-type: none"> 23.6.3 Development Setbacks 23.6.5 Outstanding Natural features • Assessment criteria for resource consents.
<u>Adverse effects</u>	
- Mining/extraction.	
- Deposition, reclamation, roadworks and earthworks.	

13)	HURIWAI BEACH JURASSIC PLANT BEDS
<u>Type of Protection</u>	
District Plan:	<ul style="list-style-type: none"> • Activity lists • General performance Standards: <ul style="list-style-type: none"> 23.6.3 Development Setbacks 23.6.5 Outstanding Natural features • Assessment criteria for resource consents.
<u>Adverse effects</u>	
- Mining/extraction.	
- Deposition, reclamation, roadworks and earthworks.	

SCHEDULE 5C: OTHER IMPORTANT SITES

(Note: These areas are not identified on the "Conservation" Plan Map 103).

1)	PUKEKOHE HILL (top portion only)
<u>Type of Protection</u>	
	This area is protected by inclusion in a Special Policy Area.
<u>Adverse effects</u>	
	Cumulative effects of use and development which may obscure and or destroy overall visual geological and geomorphic integrity.

2)	BOMBAY HILL: The area identified as Bombay Hill is limited to the area defined by Great South Road, Portsmouth Road, Paparata Road and Cascade/Fahey Road.
<u>Type of Protection</u>	
	District Plan activity lists , subdivision controls and development standards.
<u>Adverse effects</u>	
	Cumulative effects of use and development which may obscure and or destroy overall visual geological and geomorphic integrity.

3)	WAIKATO RIVER DELTA
<u>Type of Protection</u>	
	This area is protected by a Conservation Zoning.
<u>Adverse effects</u>	
	Loss of natural estuarine and river mouth processes through changes to river hydrology and dynamic stability.

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