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Natural Environment

OBJECTIVES AND VISIONS

- To retain and enhance the varied landscape qualities of the District.
- To protect and enhance the natural resources within the District that are valued for their intrinsic, scientific, educational and recreational values.
- To avoid, remedy or mitigate the adverse effects of activities that have the potential to compromise, damage or destroy significant areas of indigenous vegetation and habitats of indigenous fauna.
- To permanently protect outstanding natural features, areas of indigenous vegetation, or habitats of indigenous fauna at the time of subdivision, use and development.



OVERVIEW

INDIGENOUS VEGETATION

Of the 24603.9 hectares of indigenous vegetation within the Matamata-Piako District, in excess of 253 hectares, or 1% is protected by way of QEII covenants. While this does not appear to be a significant proportion, it should be remembered that most of the districts indigenous vegetation is on land owned by the Department of Conservation and is not available for development. Of the land with indigenous vegetation that is held within private ownership, 253 hectares is likely to be quite significant.

PLANT AND ANIMAL PESTS

A number plant and animal pest control operations are underway within the district. Environment Waikato administers four of these operations, and one is a local community programme.

(continued overleaf)

"Natural Environment" means indigenous ecosystems, such as wetlands, lakes, bush, forests and geothermal areas. It includes the physical as well as biological components of natural areas, but does not include amenity values."



HABITAT FRAGMENTATION

While there is no evidence from Council's monitoring that habitat fragmentation is occurring, records are very recent and a trend over time will need to be developed to provide a more clear indication.



COMMUNITY ACTIONS

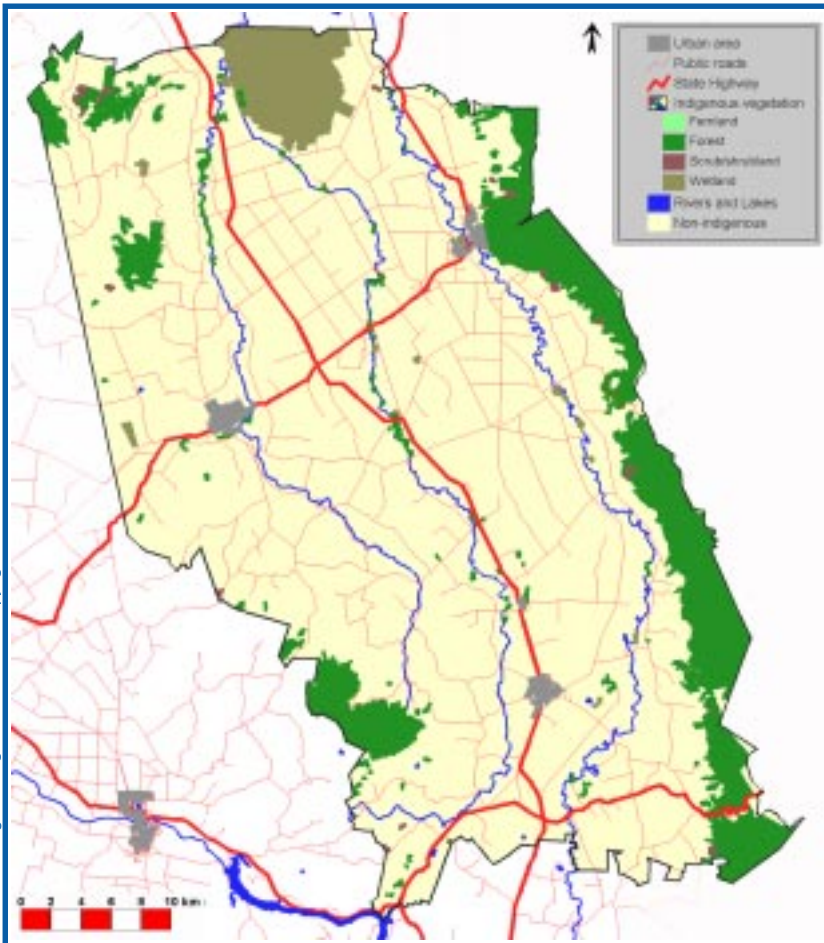
Community awareness and actions in the protection of natural areas is above the regional average.



SOIL HEALTH

Much of the district's peat soils are within and around the Kōpuatai Peat Dome which is protected and managed in a sustainable manner. However, there are some areas of peat within the district which are not protected, or have no special management requirements.





Distribution of Indigenous vegetation within the Matamata-Piako District

Before settlement, the district was covered in indigenous vegetation, most of that being the Kopuatai Peat Dome which historically stretched from the Hauraki Gulf to Matamata, and from the Kaimais to the western ranges.

The district's natural environment contains some landscapes and features with outstanding qualities. These outstanding natural features are of regional and, in some cases, national and international significance. In the majority of cases these areas such as the Kopuatai Peat Dome and the Kaimai - Mamaku Ranges are held as reserve or in public ownership. However there are some significant natural resources held in private ownership.

The Kaimai Ranges are considered to be the most outstanding natural feature in the Matamata-Piako District and it is considered that no development

should be permitted on them. The Hinuera Valley is also an important regional landscape feature and fairly rare. Therefore any development in the area should be discretionary and be subject to specific design guidelines to protect the natural characteristics of this area. The Kopuatai Peat Dome is the only true peat dome/restaid bog remaining intact in New Zealand, and is the largest remaining freshwater wetland left in the North Island¹. It is the best example of its kind in New Zealand and supports a vegetation type unique in the world.

¹ A Directory of Wetlands in New Zealand

Pressures

The primary activity affecting the natural environment is changes in land use such as land drainage, bush clearing, subdivision and development. These activities place pressure on the natural environment by destroying habitat, isolating and fragmenting land, introducing predators and plant and animal pests, using and harvesting species and grazing other species.¹

As the Matamata-Piako District experiences further residential growth and industrial development the risks of the natural environment being modified by these new activities will increase. Unlimited public access may severely affect the quality of natural resources in the District and measures may need to be taken to protect these public assets from the effect of surrounding development. Sensitive natural areas such as the Kopuatai Peat Dome are under continued pressure from adjacent land drainage activities for agriculture and are being monitored closely.

The number of resource consents granted, for excavation or activity within the kaitiaki (conservation) zone, reflects the pressure of associated development. These consents need to be

carefully monitored and used as a means to control potential adverse effects of development

Concern has been raised over the scale of native vegetation removal in the District, the harvesting of forestry in the kaitiaki zone, and the number and distribution of plant and animal pests.

State

Landscape

The natural features in the Matamata-Piako District can be broadly divided into eight distinct landscape types.

- Intensively farmed plains
- Kopuatai Domed Peat Swamp
- Western foothills
- Hinuera Valley along Piarere Road
- Western ranges
- Waihou River terraces
- Kaimai foothills
- Kaimai Ranges

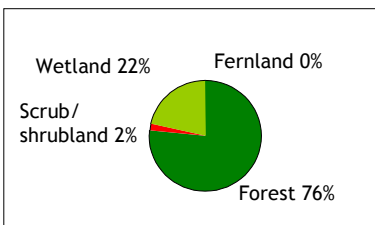
KEY ISSUES

- The threat of future activities in areas adjacent to land containing outstanding natural features or resources, modifying, destroying, or compromising these qualities.
- The protection of outstanding natural resources in private ownership.
- The threat of uncontrolled or unlimited public access to significant features where intrinsic values of particularly sensitive ecosystems may be compromised.
- The significant loss of indigenous vegetation, habitats of indigenous fauna, and indigenous species.
- Development pressures resulting in the loss of many urban trees with historical and visual significance.
- The loss of trees near waterways which may adversely affect water and soil conservation in the District.
- Inappropriate development adversely affecting wetlands, rivers, and their margins.

Indigenous Vegetation

There are a total of 11 natural areas within the district that are protected by covenants from the Queen Elizabeth II Trust (QEII Trust). The areas that are protected range in size from as little as 0.72 hectares up to one block over 82 hectares. All of the protected areas, with the exception of one, are forest remnants of lowland and podocarp types. In total over 253 hectares of the district are protected by way of QEII covenants. In the last two years two consent notices have been issued to protect trees and indigenous vegetation.

Of the 175,416.9 hectares of the district, 85% (or 150,812.9 hectares) is not indigenous cover, much of this is pasture. Of the remaining 15%, (or 24,604.0 hectares) in indigenous vegetation the majority is either forest or wetland as the graph below shows.



Composition of Indigenous Vegetation in MPDC (Source Waikato Indigenous

Vegetation Database. Copyright Landcare Research Ltd)

Plant and Animal Pests

Environment Waikato administers a number of plant and animal pest control operations within the Matamata-Piako District. Four Tb (Tuberculosis) pest control operations are being run in the Hapuakohe Ranges, Kopuatai Peat Dome, Hangawera Hills and the Hauraki River. In addition, one community based animal pest operation in

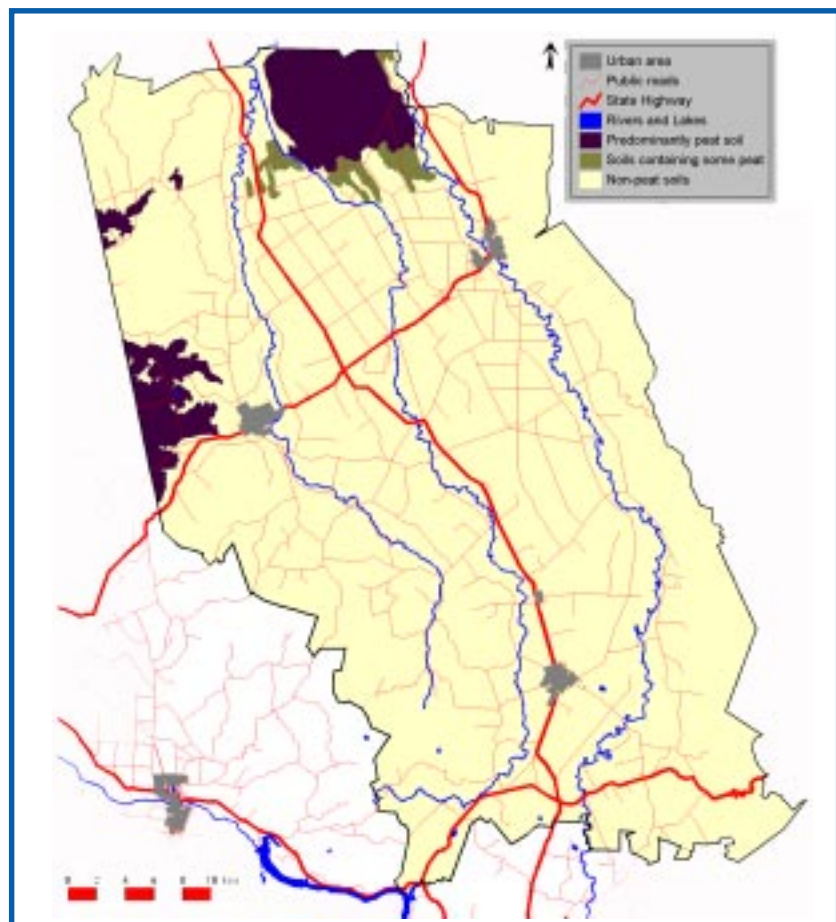
the Te Tapui/Whitehall area is also underway.

Habitat Fragmentation

There have been no consents granted by Council for the harvesting of exotic forestry or excavation within the Kaitiaki Zone which would provide an indication that habitat fragmentation was occurring.

Soils

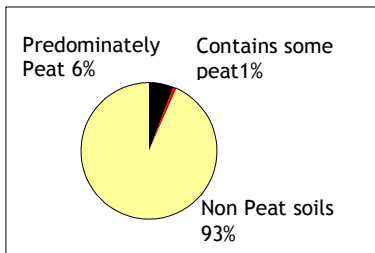
Geologically the plains are made of sedimentary and alluvial deposits. Soil types on the plains are largely a mix of



Peat Soils within the Matamata-Piako District

Data extracted from Environment Waikato's GIS on 9/17/99
Data Source: NZ Land Resources Inventory (LRI) . Copyright Landcare Research Ltd.

grey soils with yellow brown loams. The map below shows the areas of the district that contain peat soils. The graph below shows that approximately 7% of the district, (or 11,586.57 hectares) are either predominantly peat, or contain some peat soils. These areas require careful management to ensure that the current peat soils are maintained.



Peat soils in MPDC (Source: NZLRI database. Copyright Landcare Research Limited)

Community Awareness

A 1998 survey² identified that 31% of the Matamata-Piako District population surveyed had acted to protect the environment in rural areas, which is higher than the regional average of only 26%. Of a sample of 88 people, 58% said that the protection of native bush or wetlands had got better.

Response

Through provisions in the District Plan, Council is

attempting to manage the natural environment in a very proactive manner. The District Plan emphasises that the scale, location and design of buildings, structures and activities in significant landscape character units of the District should preserve the key elements which contribute to its natural character.

The Council has also proposed to enhance the general landscape of the District by implementing a tree-planting programme. This planting programme is intended to encourage landowners to plant trees, which reflect the character of the district.

Identified in the District Plan and as part of Council's Environmental Education strategy, Council is looking at promoting landcare and environmental farm plans which is intended to enhance our natural environment whilst mitigating the effects of development.

The Waikato Region is supported mainly through its farming and forestry industries and Environment Waikato has concentrated efforts to protect soil health and erosion to ensure that these industries continue to be viable activities. Soil conservation schemes paid for by the government are run on a large

scale and an increasing number of land care groups throughout the region are involved in tree planting schemes on hills, stream banks, gullies and fencing along the margins of waterways to protect and enhance the natural environment.

¹ Environment Waikato, State of the Environment Report, 1999.

² Environment Waikato Perception Survey

What you can do to Help

- Become involved in Council initiatives such as tree planting and associated conservation programmes.
- Become involved in landcare groups.

Kopuatai Peat

Dome

The Kopuatai Peat Dome has a total area of 9,665 hectares and is the largest wetland in the country. It is located on the Hauraki Plains and bounded by the Piako and Waihou Rivers and the Elstow Canal. The Dome has National Reserve status and has been identified as having international significance. Only part of it is in the Matamata-Piako District. It is remnant of that huge wetland, which once stretched from the Firth of Thames to Matamata, and from the Kaimais to the western ranges.

The peat dome is created by vegetation partly but not fully decomposing. In the centre of the swamp, water cannot drain away so the whole area is waterlogged. Because of the lack of air in this part of the swamp, dead plant material does not break down or decompose. Round the edge of the swamp however, where the water can drain away, oxygen can get into the vegetation and cause it to rot.

This peat swamp is particularly important botanically



CASE STUDY

because it contains the rare Greater Wire Rush, which is found only in three places in the world. There is also a wide range of other rush species in the wetland as well as clumps of stunted manuka, flax and cabbage trees. The wetland is an important habitat for fernbirds, bittern, pukeko and harriers.

Kopuatai is a refuge for rare plants and is very vulnerable to change. It is also part of our vanishing national heritage. It is important that it be managed and protected in a manner that will sustain it.

This expansive area of wetland could well be considered to be an “invisible” part of the District’s landscape. Despite its size the wetland is difficult to view, because the surrounding land is low lying and the vegetation of the wetland is of sombre colourings and low stature. There are very few features, which stand out with the exception of fence lines and the occasional tree. In places land surrounding the wetland is being drained by means of canals for use as grazing land. This can adversely affect the functioning of the wetland.

Roads surround the wetland and carry a reasonable amount of traffic, though there are few houses in the area.

There is a conflict between the conservation of the peatland and the development of surrounding land. The development of surrounding land usually always involves the drainage of the land, as it is all peat. This drainage can result in irreversible shrinkage and oxidation of the peat dome.

The Matamata-Piako District, utilising resources from Environment Waikato and the Department of Conservation are monitoring the health of the Kopuatai Peat Dome and continue to assess the impacts of adjacent farm drainage activities.