

## **PART 16 RURAL ISSUES**

### **16.1 SUSTAINABILITY OF NATURAL RESOURCES**

The land, soil and water resources of the District are finite resources upon which much of the economic and social well being of the people of the District relies. The versatility of these resources is fundamental to the identity and prosperity of Franklin. The management of these resources must therefore be focused on ensuring that they remain in a suitable state and form for present and future generations. This manifests itself in two aspects.

In the first instance activities should not adversely affect the life supporting capacity of natural and physical resources. Secondly the versatility of these resources should not be lost or compromised by the effects of activities.

Activities that have an adverse effect on the rural resources of the District can be grouped as follows:

- Those that are not reliant on rural resources for their location. Where any adverse effects cannot be avoided or mitigated through conditions then the Plan requires that they locate in other, or urban, areas;
- Some activities that directly rely upon particular resources also have the greatest potential to damage those resources. Such activities may not therefore be *sustainable* in terms of their cumulative effects on land, soil and water resources.

These issues are discussed further in terms of the resources of the District.

#### **16.1.1 LAND**

##### **Issues:**

The critical issue facing the land resource of the District is its continual fragmentation into ever smaller lot sizes. A comparison of the valuation roll holdings in the rural area of the District between 1980 and 1993 shows a reduction in the number of properties in excess of 10 hectares. In 1980, 38 per cent of all properties in the former Franklin County rural area were larger than 10 hectares. In 1993, this had reduced to 24 per cent (for the same rural area).

This only gives a picture of the situation at the land holding level. Individual land holdings may comprise several titles that can be sold with the right to erect a dwelling. Also as a result of past rural subdivision policies the District has a significant 'underlying' subdivision pattern. Many of the lots for which subdivision approval has already been given are still held in one larger (parent) property. If all of these lots obtain separate title and are sold off individually, it will have a significant impact on the availability of usable land resources in parts of the District.

Unless appropriately managed this would be unsustainable given that Franklin has a finite land resource.

This process has resulted in a type of '*rural sprawl*'. It is not new and is not confined to Franklin or even to New Zealand. It is a characteristic of rural land on the fringe of any major metropolitan area.

Subdivision can however facilitate the more efficient use of resources by allowing for greater intensification of use. The last 10 years has seen an increase in the number of smaller, more

intensively used lots. In particular there has been increased production from covered cropping operations, typically undertaken on smaller sized lots.

The challenge facing the District is to balance these often conflicting processes. The diversification of rural land uses should not be discouraged and yet ongoing, irreversible subdivision is probably not sustainable given that Franklin has a *finite* land resource. The Plan seeks to achieve a balanced approach through a variety of mechanisms including dwelling controls and specific criteria for the creation of new lots.

This subdivision process has led to the following interrelated effects which will only be compounded if subdivision is not appropriately controlled:

Adverse Effects:

- **Fragmentation of Land Holdings:**  
Because land resources have in places been greatly fragmented through subdivision, activities that rely upon larger parcels of land may have difficulty in locating in certain parts of the District;
- **Accessibility of Resources:**  
Subdivision has made some land parcels too small or the wrong shape to enable their effective use and development. Activities that directly rely upon the natural characteristics of land and soil resources are therefore being constrained by the cumulative effects of subdivision driven by different objectives;

In the face of inappropriately located rural-residential development, with its potential conflicts, some farm and cropping land has become more attractive for the perceived ability to obtain a subdivision;

- **Amenity and Conflict between Activities:** These are discussed in Parts 16.2 and 16.3;
- **Servicing and Sustainability**  
Increasing populations in the rural area are placing increasing pressure on the District's roads and services and on New Zealand's energy resources. In particular this has meant that roads that were quite adequate for a dispersed, farming population now require upgrading and more frequent maintenance to satisfy new expectations.  
There has also been an increasing demand for urban type services such as refuse collection.

Other significant land resource issues affecting rural areas are:

Conservation:	Refer to Part 5.0
Natural Hazards:	Refer to Part 7.0

### **16.1.2 SOIL**

#### **Issue:**

Some erosion is occurring as a result of poor cultivation and other management practices. Significant topsoil loss occurs particularly where intensive cropping is undertaken on sloping land. Soil runoff is silting up watercourses and affecting the plant and animal life in them.

Adverse effects:

Soil resources are adversely affected by:

- poor cultivation and other management practices resulting in the loss of soil structure; and
- soil parasites, such as the potato nematode, rendering soils unsuitable for some crops;

- excavation ('topsoil mining');
- recontouring; and
- extensive building and hard stand coverage rendering them unavailable in the long term. Some structures are however necessary for the efficient use of soil resources.

Subdivision can make some land parcels too small or the wrong shape to allow the practical utilisation of soil resources.

### **16.1.3 WATER**

#### **Issue:**

For some stream catchments and aquifers in Franklin District, current water demand is equivalent to the quantities available.

If water is taken from a groundwater aquifer at a rate faster than the rate at which it is recharged then this may cause long term decline in aquifer water level and pressure. Overdrawing water from streams and rivers can result in reduced flows and water levels. This in turn may result in lower water depth and velocity, and higher water temperatures in summer, which can affect plants and animals living in these waterways. Already some of Franklin's streams and aquifers are fully allocated.

The groundwater resource within the district is a significant source of water supply to both agriculture and to urban communities and activities. Of particular importance is the matter of the replenishment of such aquifers through groundwater recharge, such as the role of the Pukekohe plateau and the Pukekohe Hill area.

Urban development has the potential to give rise to significant adverse effects on both surface and groundwater resources, potentially reducing recharge to aquifers from rainfall. Any alteration to existing regimes should avoid or mitigate any such potential effects.

Water resources are being polluted by agricultural and horticultural chemicals. Water in shallow volcanic aquifers beneath the Bombay, Glenbrook and Pukekohe areas contain high levels of nitrates. This is primarily the result of heavy fertiliser use on overlying market gardens. Nitrates in domestic water supply are a health risk.

Discharge of sewage and other wastes into water is undesirable and unacceptable, as well as being culturally offensive to local Maori. While on-site wastewater disposal methods may be appropriate, and will be required in some cases, these must be able to be designed, installed and maintained so as not to pollute or otherwise compromise groundwater resources.

While water resource management is predominantly a Regional Council function, in order to achieve integrated management the District Plan must recognise the relationship between water and land use activities.

Adverse effects:

- Limitations on water availability;
- Water pollution;
- Water runoff;
- Reduction in groundwater recharge.

### **16.1.4 MINERALS**

#### **Issue:**

By definition, mineral resources are finite in nature and cannot be extracted in a sustainable way. However, other resources such as soil and water can be adversely affected by mineral exploration and extraction activities. For example, such activities have the potential to pollute surface and underground water resources through siltation and other effects.

Mineral resources may be prevented from being used by the encroachment of urban development and more intensive rural settlement.

Adverse effects:

- Limitations on mineral extraction due to conflict with other activities;
- Adverse effect of mineral exploration and extraction activities on other resources and natural ecosystems.

## **16.2 CONFLICT BETWEEN ACTIVITIES**

### **Issues:**

Franklin's productive base is diversifying with a range of activities becoming more established, such as commercial flower growing and poultry farming. These activities are not located in any specific area but are characterised by their dispersed nature. At the same time many lots created for productive purposes are meeting a demand for "rural residential" lots. Once again this is not occurring in any specific locality but is spread throughout the District. As such the potential for conflict has increased.

There is increasing conflict between those seeking to live in the rural area for "lifestyle" reasons and the effects of activities using the rural resource base for productive purposes.

Examples include:

- Odour associated with normal farming activities, such as from dairy sheds, silage pits, onions drying, and "factory" (intensive) farming operations;
- the use of chemical sprays;
- Noise from dogs, farm machinery, bird scaring devices and other farming related activities.
- Dust, noise and traffic from mineral extraction activities.

There are also conflicts arising between different productive activities. Examples include:

- Agricultural sprays affecting glasshouse or organic farming operations;
- Odour causing a nuisance to neighbours;
- Sprays and fertilisers affecting stock and people.

The Council considers that many of these activities, and their effects, are part of a typical rural environment, and can be expected to be experienced by all rural residents at some time.

### **Adverse effects:**

- Incompatibility or conflict between activities.

**16.3 AMENITY****Issues:**

Rural sprawl is significantly altering, and in some cases damaging, the landscape and amenity values of rural Franklin. Rural landscapes are being visually altered by structures such as dwellings, and associated buildings in close proximity - sometimes resulting in an urban type environment. There has been a loss in the spatial definition of urban areas. For example the southern boundary of the metropolitan limits of Auckland has been compromised by small lot subdivision around the Hingaia Peninsula and Drury. Mineral extraction activities can significantly alter land forms and hence modify rural landscapes. (Refer also to Part 5.0 Conservation).

**Adverse effects:**

- loss of rural character;
- effects on valued natural landscape features.

## **16.4 PUKEKOHE HILL**

### **Issues:**

The issues facing Pukekohe Hill are a reflection of what is occurring in many parts of the District. The Pukekohe Hill area constitutes a valuable natural resource. It forms an important part of the District's elite land resource. For historical reasons the Hill is closely subdivided into 2-4 hectare blocks. The degree of fragmentation, however, has not prevented the land's effective use for intensive horticultural purposes, with individual sites being cropped separately and in conjunction. Properties are in demand for either purchasing or leasing by the 'grower' community. Areas unsuitable for cropping on account of slope or soil type can and are being used for pastoral purposes.

In the past there has been pressure for residential subdivision in the Rural Zone, and in particular on Anzac Road. After special investigation and analysis of the northern slopes of the Hill, the North Pukekohe Hill Structure Plan has been included into the district plan, together with targeted provisions in Rule 54.8. A change of use and development enabled by the Structure Plan will ensure a comprehensive and integrated approach is taken to the future change in the settlement pattern.

The Hill has high landscape values which are capable of being affected by the adverse visual effects of both subdivision and development. Given these important landscape values all new buildings in the Rural-Residential zone and Pukekohe Hill Special Policy Area are required to be assessed in terms of visual effects. The benefits of this approach are considered to outweigh any additional administrative costs, bearing in mind that it applies to a relatively small area of the total District.

Plan provisions are also needed that safeguard views both towards and from the Hill. For instance, shelter belts are relevant to the extent they could potentially obstruct views from the summit's public reserve. Plan provisions, including those within the North Pukekohe Hill Structure Plan and the Special Policy Area, seek to manage and, where possible, improve these views.

Parts of the Hill have been rezoned for residential and rural-residential living purposes. Other parts remain in a rural zoning. It is important that the interface between rural and urban zones be well managed to minimise any adverse effects of rural activities, such as spray drift and noise, on adjoining urban land uses. Similarly, the introduction of sporadic residential or rural-residential developments into the Rural Zone must be avoided.

Any adverse effects of soil erosion and stormwater flows from cropped areas are capable of mitigation if not total avoidance, through the management practices followed by some growers.

Parts of the Hill's eastern and northern slopes drain to the Tutaenui Catchment which has existing flooding problems. Essential capital works in the order of \$3 million are required to improve the situation. To avoid worsening the position it is essential that additional stormwater runoff not be generated in this catchment from further areas of conventional residential subdivision. The Pukekohe plateau, including the Pukekohe Hill, provides an important groundwater resource within the district. It is considered that any urban development on Pukekohe Hill should not adversely affect the replenishment of such aquifers through groundwater recharge. Any alteration to the existing land uses on Pukekohe Hill should avoid or mitigate any such potential effects.

Urbanisation and rural-residential development of part of the northern slopes of Pukekohe Hill has been provided through the North Pukekohe Structure Plan (Refer Part 54). Amongst other matters this provides a mechanism for reducing the adverse effects of stormwater runoff,

siltation and flooding upon the Pukekohe township and South Pukekohe and Tutaenui catchment areas and stream systems.

Stormwater provisions, standards and management systems are included within the North Pukekohe Structure Plan to better avoid the present levels of flooding and to manage stormwater generating from Pukekohe Hill. They are also necessary in order to mitigate the potential effects of the proposed urban development. In addition these standards and stormwater management requirements recognise and enhance the role of the Pukekohe Hill in respect to groundwater replenishment. The level of development is controlled and standards applied to the North Pukekohe Structure Plan to avoid any adverse effects upon the potential for groundwater recharge into the aquifer and stream systems.

Allowance for greater development in the North Pukekohe Structure Plan area has raised the question of appropriate methods of wastewater disposal. In the Special Rural-Residential 1 Zone in particular, ground conditions are regarded as being generally suitable for on-site systems, but these must be able to be designed, installed and maintained so as not to pollute or otherwise compromise groundwater resources. Care will be taken at subdivision approval stage to ensure that wastewater disposal is adequately provided for. In some circumstances, Council may allow or require connections to a reticulated wastewater disposal system, or require modifications to subdivision and/ or wastewater disposal system design.

From consultation with tangata whenua representatives and related investigations it is apparent that the Hill comprises ancestral Maori land in terms of Section 6 of the Act. Local hapu identify strongly with the Hill and consider it to be waahi tapu. A clear preference has been expressed by those consulted that the summit and upper slopes of Pukekohe Hill in particular be preserved and protected from inappropriate development. The absence of recorded archaeological sites does not detract from these considerations. This concern has been taken into account as a basis for the Special Policy Area below the summit, and in the North Pukekohe Hill Structure Plan.

**Potential Adverse effects:**

- Irreversible loss of elite (highly versatile) land to indiscriminate residential subdivision;
- Adverse visual effects of both continued urban development and by other activities which are incongruous with the Hills' natural character;
- Conflict between rural and urban activities;
- Adverse effects on water resources;
- Loss of cultural values if urbanised.