

## **10 UTILITIES**

### **10.1 RESOURCES, ACTIVITIES AND VALUES**

Utilities provide the infrastructure that enables a community to undertake its everyday activities and functions and allows people to provide for their social and economic wellbeing, health and safety.

There are various categories of utilities and a number of providers. They are physical resources which are used to provide water, electricity, sewerage reticulation, roads, railway lines, airports, telecommunications, and radio communications.

The main providers of utilities are the Council, the Crown, Regional Councils and State Owned Enterprises. However, recent developments have seen a number of trading enterprises and private companies enter the utilities sector. Traditional providers of utilities no longer enjoy a monopoly.

Within the Waitaki District, the Ohau A, B and C, Benmore, Aviemore and Waitaki power stations generate energy for supply to the national grid. The electricity substations, switchyards, and lines used for the distribution of the generated electricity are important utilities. Other utilities within Waitaki District include State Highways 1, 8, 83 and 85 and microwave VHF stations required for telecommunication and radiocommunication purposes. The roads and state highways are all designated in the District and are further addressed in the Transport Chapters of the Plan.

Within the District, the Council is a major provider of utilities and services supplying water and sewerage reticulation. Other Council services such as roading and waste disposal are addressed elsewhere in the Plan. Of the other organisations, some are included within the meaning of a Network Utility Operator as defined under Section 166 of the Resource Management Act. Other utilities located within the District, but not falling within the range of activities which can be undertaken by Network Utility Operators include the provision of flood and coastal protection works.

Not all utilities are provided for the benefit of the wider community, for example individuals may have aerials on their properties for telecommunication purposes, such as television aerials or for radio communications (radio ham operators).

#### **Legislative Context**

A number of the organisations that provide and operate utilities have status as requiring authorities under the Resource Management Act and are able to provide for their utility by designation. Requiring authorities include a Minister of the Crown, a local authority or an approved Network Utility Operator undertaking one of the range of activities listed above.

Where a utility is provided for by way of designation, the General and Zone rules of the Plan do not apply to that activity, however, there may be specific conditions in the Plan relating to the operation or design of the work or project which will have the effect of rules. Once a site is designated it may not be used for any other activity (including permitted activities within the underlying zone) without the consent of the requiring authority.

## 10.2 ISSUE 1 - Visual and Amenity Effects

**The construction of utilities can have an adverse visual impact on the character of an area; and the operation and/or maintenance of utilities can adversely affect the amenities of an area.**

### 10.2.1 Explanation

Utilities are physical resources which are used to provide water and electricity, sewerage reticulation, roads, railway lines, airports, telecommunications, and radio communications.

A number of utilities have other potentially adverse effects. These effects may include noise from the operation of a utility or odour from a particular process, e.g. oxidation ponds. It is possible that adverse effects may occur at the time of construction or installation of the utility, throughout its operation or during maintenance works. Some utilities such as pylons sited along a ridge may have significant visual impact.

Some areas of the District will have higher levels of amenity than others. Certain utilities may not therefore be appropriate in those locations due to the nature of their effects. For example, residential areas would be vulnerable to the intrusion of large buildings or pylons. Areas with outstanding natural features and areas of significant indigenous vegetation or habitats also need to be protected from inappropriate use and development of utilities. In some instances locational factors may determine the exact position of a utility, but as a general principle service authorities will be encouraged to locate utilities in areas with characteristics similar to the utility or in a manner which will have few adverse effects on the environment.

Utilities are however essential for the welfare of a community and their environmental impacts must be balanced against the community's need for the service or facility.

### 10.2.2 Objective 1

**The construction, installation, operation and maintenance of utilities to avoid, remedy or mitigate adverse effects on amenity values and the surrounding environment.**

### 10.2.3 Policies

- 1 To avoid, remedy or mitigate adverse environmental effects created by the construction, installation, operation and maintenance of utilities through the separation of incompatible activities and maintenance of visual amenities, safety, and the quality of the environment anticipated within different areas of the District.*
- 2 To avoid, remedy or mitigate adverse effects on areas identified as possessing outstanding landscapes or natural features, significant indigenous vegetation, significant habitats of indigenous fauna from utilities which are environmentally incompatible.*
- 3 To encourage the undergrounding of most services in new areas of development within the Residential and Township Zones and to encourage the systematic replacement of existing overhead services with underground reticulation or the upgrading of existing overhead services within these areas, where practicable.*
- 4 To encourage the co-siting of utilities, where practicable, in order to minimise adverse effects on the environment.*

- 5 To take account of economic and operational needs in assessing the location, design and appearance of utilities.

## 10.2.4 Explanation and Reasons

Utilities have a variety of impacts depending on their diverse nature. The impact of utilities is greater in areas used for residential, conservation or recreation purposes. There is little justification for regulating utilities that do not have major impacts. Utilities have quite distinctive and varied characteristics. Environmental effects are also balanced against operational requirements and costs. This approach reflects the need to make provision for those services and developing technologies which consumers and businesses expect.

Services such as power and telecommunications have traditionally been provided throughout the District by way of overhead servicing. Policy 3 recognises that overhead lines and structures associated with services can detract from visual amenity. Whilst adverse effects of overhead lines and associated structures can be mitigated to some degree, for most properties in the Residential, Business and Township Zones, provision of underground reticulation is encouraged. Some exceptions to undergrounding of services will exist, such as high voltage lines, as it is not practical to underground these in terms of cost. It also recognises the need for access for maintenance purposes.

Communication facilities, including towers and dish antennae, can have a major visual impact depending on the scale and nature of the structures although telecommunication infrastructure generally has tended to become less conspicuous with changing technology.

For many structures or facilities where undergrounding is not an option, control over location, design and appearance is emphasised in the more sensitive environments.

Facilities such as cellular telecommunications towers, need to be located throughout the District to serve residential as well as commercial users. The provision of high voltage power distribution may also be unavoidable in built up areas in some cases. Accordingly, the Plan does not preclude such facilities, but will require account to be taken of location and design to mitigate rather than avoid adverse effects.

## 10.3 ISSUE 2 - Efficiency

**The efficient and effective establishment use and maintenance of the District's utility infrastructure can be adversely affected by the inappropriate location and nature of land use activities and by failure to recognise their importance in meeting community needs.**

### 10.3.1 Explanation

Section 7 of the Act requires that regard is given to the efficient use and development of resources, which includes structures.

Many utilities involve significant capital expenditure to establish and may have a life expectancy spanning several decades to more than 100 years. It is important that a utility is able to be located, developed and operated in a manner which permits it to function efficiently so that the community can obtain value from its investment. The capital costs and life expectancy also make it necessary to protect utilities from adjoining activities that may reduce the efficiency of their operation or function.

In providing a mechanism for establishment of utilities (by rule, schedule or designation), the Plan also needs to acknowledge the importance of the role of utilities in providing community services. The environmental effects must therefore be balanced against the importance of the function of the utility, the strategic needs and economic costs. These matters will need to be taken into account during any decision-making process for establishment of utilities.

### **10.3.2 Objective 2**

**The efficient and equitable establishment, use and maintenance of utilities, necessary for the well-being of the community.**

### **10.3.3 Policies**

- 1 *To recognise the need for maintenance or upgrading of a utility to ensure its on-going use and efficiency.*
- 2 *To take into account the strategic needs of a utility and its costs to the community, when considering alternative locations or sites for the establishment or alteration of a utility and the appearance of a utility.*
- 3 *To recognise the presence and function of existing utilities which are land extensive and/or which have specific locational needs when assessing the suitability of surrounding activities, in order to ensure the long-term efficient functioning of that utility.*
- 4 *To encourage the co-location of utilities where operationally feasible, in order to use facilities more efficiently.*
- 5 *To give due regard to the importance of a utility when assessing the establishment of a proposed utility or the suitability of a particular site or proposed adjoining activities.*
- 6 *To encourage development in areas which are already serviced and have the capacity for additional development, in order to minimise public costs and use public resources wisely.*
- 7 *To ensure the costs of servicing development are generally met by the developer directly or through contributions made to Council at the time of development or the issuing of titles.*

### **10.3.4 Explanation and Reasons**

Due to the importance of the role of utilities in providing essential services to the community; their often high capital cost to establish; and their long life expectancy, it is important that the Plan acknowledges the need for the establishment and on-going functioning, maintenance and upgrading of the utilities. In addition, some utilities have specific locational needs that need to be accommodated for their operation. Co-location may reduce capital investment and also environmental effects.

It is also appropriate to protect the operation of utilities from incompatible activities on adjacent sites. In some cases the community will need to balance its need for the utility against likely environmental effects and the cost of mitigating measures.

To minimise the costs of providing services, development and redevelopment of areas which are already serviced and have capacity for additional development is encouraged. However, this must be balanced against other considerations, such as the type, character and density of living areas sought by the community.

Policy 2 is directed at avoiding disruption and ensuring the well-being of occupants by having services provided prior to buildings being occupied, and activities commenced. There is an expectation by the purchasers of land that such services be available, and for many developments the framework for provision of services is at the stage of subdivision consent.

## **10.4 IMPLEMENTATION METHODS**

To achieve policies through:

- 1 the provision of rules in the District Plan to:
  - a) permit the erection of utility structures, their operation and maintenance;
  - b) set performance standards on the design, location and operation of utilities to avoid any adverse effects on the surrounding environment;
  - c) control the scale and type of development of utilities.
  - d) make specific provision for certain utilities within the District, which are land extensive and/or which have specific locational needs.
  - e) require utilities, which have variable effects or which may have adverse effects if located in some localities, to obtain resource consents in order that the Council can consider the potential effects of the proposal and impose specific conditions if appropriate.
- 2 directing funds and resources where appropriate, to provide services in specified areas.

## **10.5 ENVIRONMENTAL RESULTS ANTICIPATED**

- Maintenance of the amenity values of the District, particularly in residential, business, and recreational areas and land of high landscape value.
- Provision of utilities consistent with the nature of the local environment, operational needs, and the cost and scale of facilities.
- Protection of the functioning of utilities.
- New development in areas where utilities can supply resources on a sustainable basis.
- Maintenance of high quality and availability of groundwater supplies.
- Development of areas more able to be serviced with consequent economies in use and provision.
- Sewer and water reticulation in areas where this is necessary to prevent degradation of groundwater resources.
- Adequate disposal of solid wastes, sewerage and stormwater in a manner which protects water resources and amenities.
- Maintained and enhanced public health.

- Degree of risk to community from flooding minimised through the protection of flood control measures.

