

11. Utilities and Traffic Management

Issue 11.1

Utilities are necessary to enable people and communities to provide for their wellbeing, health and safety.

Objective 11.1.1

Utilities that maintain or enhance the community's social, economic and cultural wellbeing, and its health and safety.

Policy 11.1.1.1

A utility should:

- a. contribute to a safe environment;
- b. maintain or enhance public health;
- c. promote efficient use of resources and efficient development of the utility, so that resources are conserved and used in a sustainable manner;
- d. have regard to cross boundary issues where the utility or the service provided by the utility crosses the territorial boundary;
- e. where it is necessary to service new development, be paid for by the developer, or as a condition of consent for the development; and
- f. maintain and enhance social wellbeing.

Explanation

Utilities are activities that include the construction and operation of roads; the distribution or transmission of energy and telecommunications; and the distribution, disposal or transmission of water, and sanitary waste.

Utilities are important to the wellbeing, health and safety of people. Roads need to enable safe and efficient travel and provide access to property, amenity and open space for the community. For a water supply utility this means it must provide an adequate, reliable, safe and efficient supply of potable water. Supply for fire fighting purposes is also a consideration. For sewers, the utility must be adequate for the

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maintenance of public health, minimise the ingress of stormwater or groundwater, and avoid surcharging or overflowing. Stormwater systems must collect and dispose runoff, protect people and property from injury or damage caused by surface water, and efficiently convey water to an appropriate outfall. Street lighting should be provided in a manner that ensures the safety of vehicles, cyclists and pedestrians.

Robustness of a utility's performance is an important factor. Their design should provide a highly reliable level of service to the community over their design life. Any likelihood of failure, such as a break in a sewer main, is an immediate hazard to peoples' health and safety. Robust design ensures that the associated infrastructure will maintain a community's social, economic and cultural wellbeing.

Where there is no conflict with their function, roads are generally suitable as a corridor for siting utility reticulation with minimal disruption to the natural and physical environment. Co-siting such as this reduces adverse effects, particularly in the urban environment.

Some utilities such as the Ashley Rural Water Supply cross the District boundary. Regard to both this District Plan and neighbouring district planning requirements is necessary for the management of such utilities.

This policy must be read with the Financial Contributions (Chapter 20: Financial Contributions and Chapter 34: Financial Contributions – Rules) provisions of the District Plan.

Methods

Service Provision 11.1.1.1.1

Provision of works and services.

Liaison With Road Owners and Managers 11.1.1.1.2

Ensuring liaison and consultation with Transit New Zealand, asset managers, utility providers, the Canterbury Regional Council and adjoining territorial authorities where appropriate.

Annual Plan 11.1.1.1.3

Consideration can be given to co-operative projects with utility providers for utility enhancement or improvements.

Financial and Development Contributions 11.1.1.1.4

Rules requiring money or land for purposes set out in Chapter 20: Financial Contributions and Chapter 34: Financial Contributions – Rules or in Waimakariri District Council's Development Contributions Policy.

Processes to Deal With Cross Boundary Issues 11.1.1.1.5

NOTE: See Chapter 19: Cross Boundary Issues

Policy 11.1.1.2

Every new site within a design catchment of an existing or proposed utility should connect to the utility wherever possible.

Explanation

Development occurring within the catchment of a utility should be connected to each utility. This increases the efficiency of existing utilities, which in turn contributes to the sustainable use of resources in the District. Connection also provides an accepted level of service in terms of reliability and environmental standards to provide for present and future people's health and safety. Promotion of this policy can be by liaison with the utility operator and by rules, particularly for sewage disposal and water supply. Services are to be provided to the boundary of any allotment which is capable of accommodating a dwellinghouse. The rules related to connection to a utility are in Chapter 23: Land and Water Margins – Rules, Chapter 30: Utilities and Traffic Management – Rules and Chapter 32: Subdivision – Rules.

The town of Pegasus is to be provided with a fully independent high quality water supply reticulated from a well field located to the north of Kaiapoi town, or connect to a Council system. The town is also to have a fully reticulated sewage system to an activated sludge sewage treatment plant, with provision for nutrient removal and sterilisation to contact recreational water quality, followed by subsurface land disposal; or alternatively, a connection to the Eastern District sewerage system at the Woodend sewage treatment plant. These services will be provided and paid for by the developer of the town. During very wet years subsurface drains will collect any water perching on top of the silt layer underlying the land disposal site. The collected water, which has been polished through its passage through the ground, will be drained to the eastern boundary of the land disposal area into a subsurface soakage drain from where it will discharge into lower more permeable gravels. The Canterbury Regional Council is the consent authority in respect of the taking, use and discharge of water, including water containing any contaminants. Appropriate consents from that authority will be required.

Methods

District Plan Rules 11.1.1.2.1

Control of subdivisions and development in relation to utilities for each zone.

Assessment criteria for subdivision and land use consents.

Road hierarchy and transportation servicing standards for levels within the hierarchy.

Liaison With Road Owners and Managers 11.1.1.2.2

Ensuring liaison and consultation with Transit New Zealand, asset managers, utility providers, the Canterbury Regional Council and adjoining territorial authorities when appropriate.

Financial and Development Contributions 11.1.1.2.3

Rules requiring money or land for purposes set out in Chapter 20: Financial Contributions and Chapter 34: Financial Contributions – Rules or in Waimakariri District Council’s Development Contributions Policy.

Engineering Code of Practice 11.1.1.2.4

A set of engineering standards developed by the Waimakariri District Council for District Council services.

District Development Strategy 11.1.1.2.5

A non-statutory document setting out the Waimakariri District Council’s preferences as service, facility, and utility provider for the location and nature of future development including proposals for the integrated and staged provision of the services, facilities and utilities required by that development. The strategy is drawn around urban design principles and a 20 year planning period.

Policy 11.1.1.3

Subdivision and development should not proceed within areas that do not have access to appropriate utilities, or where the utilities are operating at full capacity or where these subdivisions or developments are likely to adversely affect the planned expansion of those utilities. Subdivision and development can proceed if the existing utilities are upgraded to provide the appropriate capacity for the health and safety of the present and future population, or appropriate alternatives are provided. Appropriate alternative systems should, as a minimum:

- a. meet the current environmental and engineering design standards prescribed for the present utilities; and
- b. be capable of integration with existing utilities.

Explanation

Development and subdivision in unserved areas can have adverse effects on the environment and on health and safety. Utility installation and land development should be programmed together. The policy seeks to promote co-ordination and integration of utility services, and failing that, to ensure an environmentally sound staging of land development occurs. Some present systems were designed to certain capacity levels and are reaching their design limits. Co-ordination of increases in network capacity with development is crucial if present utilities are to perform to appropriate environmental standards and continue to retain levels of service to beneficiaries.

Methods

District Plan Rules 11.1.1.3.1

Subdivision standards for connection to water, sewer, road, stormwater, energy and communications.

Standards for land based effluent disposal systems, including septic tanks (Chapter 23: Land and Water Margins – Rules, Chapter 30: Utilities and Traffic Management – Rules and Chapter 32: Subdivision – Rules).

Assessment criteria for subdivision and land use consents.

Road hierarchy and transportation servicing standards for levels within the hierarchy.

NOTE: See Rule 30.6

Liaison With Road Owners and Managers 11.1.1.3.2

Ensuring liaison and consultation with Transit New Zealand, asset managers, utility providers, the Canterbury Regional Council and adjoining territorial authorities when appropriate.

Financial and Development Contributions 11.1.1.3.3

Rules requiring money or land for purposes set out in Chapter 20: Financial Contributions and Chapter 34: Financial Contributions – Rules or in Waimakariri District Council’s Development Contributions Policy.

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Liaison With Developers 11.1.1.3.6

Meetings with developers to co-ordinate proposals and to explore alternative means of providing for servicing.

Policy 11.1.1.4

A road hierarchy shall be maintained and protected to enable the District to function with minimal conflict between activities, traffic, and people.

Explanation

A hierarchical road network provides for the safe and efficient movement of traffic. It assigns some roads the primary role of carrying through traffic and a minimal role in providing access to properties. Other roads have a primary role in providing access to properties and a minimal role in carrying through traffic. Cyclists and pedestrians are users of the road network and provision for footpaths and cycleways should be integrated into the network so as to minimise conflict but, provide easy access.

The hierarchy has five levels committed to through traffic in descending order: strategic, arterial, collector, urban collector and local roads.

CROSS REFERENCE: District Plan Maps 135, 136 and 137

Each type of road in the hierarchy provides a distinct level of service based on amenity, public safety, efficiency and traffic volumes. For example, most roads within residential areas should avoid functioning as a through traffic route for externally generated traffic. Roads in the hierarchy should also provide for the safe and convenient movement of pedestrians and cyclists with provision for cycle tracks along arterial, strategic and collector roads.

Adverse environmental effects from roads can be mitigated by diverting traffic away from local roads to roads higher in the hierarchy. The greater traffic volumes that can be carried by arterial roads promote energy efficiency as well as more efficient use of time. Local roads, by being relieved of through traffic, are able to provide valuable areas of open space as well as access. The hierarchy should minimise delays and accidents and make effective use of the substantial investment in the road network.

The location of activities on the network also affects road efficiency and safety and can be regulated.

Methods

District Plan Rules 11.1.1.4.1

Setbacks for activities in relation to roads shown on the road hierarchy maps.

Vehicle access to legal and physical roads, and requiring on-site parking, turning and loading areas.

Control of signs visible from roads.

Liaison With Road Owners and Managers 11.1.1.4.2

Ensuring liaison and consultation with Transit New Zealand, asset managers, utility providers, the Canterbury Regional Council and adjoining territorial authorities when appropriate.

Liaison with the Hurunui District Council in relation to the strategic road links between Rangiora and Amberley.

Financial and Development Contributions 11.1.1.4.3

Rules requiring money or land for purposes set out in Chapter 20: Financial Contributions or Chapter 34: Financial Contributions – Rules or in Waimakariri District Council’s Development Contributions Policy.

Engineering Code of Practice 11.1.1.4.4

A set of engineering standards developed by the Waimakariri District Council for District Council services.

Processes to Deal With Cross Boundary Issues 11.1.1.4.5

NOTE: See Chapter 19: Cross Boundary Issues

Policy 11.1.1.5

New developments and activities in relation to their traffic generation characteristics should:

- a. locate on or establish primary access to an appropriate level of road within the road hierarchy;
- b. not have vehicular access to an inappropriate level of road in the hierarchy; and
- c. provide cycleways along arterial, strategic and collector roads.

Explanation

The efficiency of the District’s transportation network can be improved by ensuring that new developments are located where they will use capacity in the transportation network, and where they will not result in a loss of convenience or efficiency for existing users of the network.

Various sections of State Highway have been declared "Limited Access Roads" under the Transit New Zealand Act 1989. The "Limited Access Roads" have not been annotated on the District Plan Maps. Controls on these roads are in addition to the District Plan. Transit New Zealand controls access onto these roads, with the exception of the Rangiora Woodend Road which is administered by the District Council.

The objective of this control is to protect and maintain the safety and high level of traffic service on these important routes which may otherwise be adversely affected by subdivision and traffic generating activities. The effect is to prevent the proliferation of new access points and to reduce the number of accesses and volumes of traffic using them.

There is a preference for many developments to locate on high profile sites with frontage to strategic and arterial roads. Primary access to these developments can be improved if it is provided from a lesser road in the hierarchy. This improves safety through reduced traffic conflict, efficient access by properly

designed intersection developments, and maintenance of speed environments appropriate to the particular road.

The provision of cycleways will need to take into account the circumstances of the area. Matters to consider will include the width and location of cycleways.

Methods

District Plan Rules 11.1.1.5.1

Setbacks for location of activities in relation to the road hierarchy maps.

NOTE: See District Plan Maps 135, 136 and 137

Control of vehicle access to legal and physical roads, and requiring on-site parking, turning and loading areas.

Control of signs visible from roads.

Liaison With Road Owners and Managers 11.1.1.5.2

Ensuring liaison and consultation with Transit New Zealand, asset managers, utility providers, the Canterbury Regional Council and adjoining territorial authorities when appropriate.

Financial and Development Contributions 11.1.1.5.3

Rules requiring money or land for purposes set out in Chapter 20: Financial Contributions and Chapter 34: Financial Contributions – Rules or in Waimakariri District Council’s Development Contributions Policy.

Policy 11.1.1.6

Every site should have access that provides safe entry and exit for vehicles to and from the site to a road without compromising the safety or efficiency of the road or road network.

Explanation

Vehicle access to sites has transport implications because of the potential for conflict between road traffic and vehicles entering and leaving sites. Access also affects safety and efficiency by reducing parking on roads in urban areas and reducing travel speeds on rural roads. Access points need to be designed and located in such a way that impacts on the road system are kept within acceptable limits. Any subdivision or new development may potentially lead to an increase in traffic attracted to the area, whether or not that is the intention of the present owner or occupier, because the activities on the land are likely to change.

Methods

District Plan Rules 11.1.1.6.1

Control of access to types of road in the network.

Control of subdivisions and developments to:

- require every site to be provided with vehicular access; and
- regulate the design and location of property access and new intersections, having regard to effects on the safety and efficiency of the road network.

Liaison With Developers 11.1.1.6.2

Meetings with developers to co-ordinate proposals and to explore alternative means of providing for servicing.

Financial and Development Contributions 11.1.1.6.3

Rules requiring money or land for purposes set out in Chapter 20: Financial Contributions and Chapter 34: Financial Contributions – Rules or in Waimakariri District Council’s Development Contributions Policy.

Council Bylaw 11.1.1.6.4

Vehicle Crossings Bylaw 1997.

Policy 11.1.1.7

Sites shall provide on-site parking, loading, turning for vehicles, or have safe and efficient access to those facilities. Any use of off-site facilities should not compromise pedestrian and vehicle safety, or the safe and efficient operation of the road network.

Explanation

Potential hazards created by traffic movement and traffic generation can be reduced if each site provides adequate space on-site, so that parking, loading, and manoeuvring of vehicles can be contained within the boundaries of the site. This is also applicable for rural uses where, for example, heavy vehicles servicing farms should be able to carry out loading and unloading on the property rather than the road reserve. Where there is insufficient room on-site, parking may be provided off-site, subject to a legally binding covenant or agreement to secure access to parking elsewhere. The arrangement should not lead to a hazard to vehicle traffic or pedestrians.

Methods

District Plan Rules 11.1.1.7.1

Requirements for loading, parking and manoeuvring.

Liaison With Developers 11.1.1.7.2

Meetings with developers to co-ordinate proposals and to explore alternative means of providing for servicing.

Financial and Development Contributions 11.1.1.7.3

Rules requiring money or land for purposes set out in Chapter 20: Financial Contributions and Chapter 34: Financial Contributions – Rules or in Waimakariri District Council’s Development Contributions Policy.

Policy 11.1.1.8

In the case of the vehicles, cyclists and pedestrians associated with the development and occupation of Pegasus:

- a. To discourage the use of Gladstone Road as a major access road linking Pegasus and Woodend.
- b. To ensure that the design and development of the roading for Pegasus facilitates the provision of an efficient and convenient public passenger transport system into, out of, and around the town.
- c. To design the residential neighbourhoods of Pegasus in such a way that most of the residential allotments in the town are within convenient and safe walking distance of a potential public passenger transport route.
- d. To ensure that at least two road accesses are provided linking the town with State Highway 1, so that access in emergencies is assured.

Explanation

Road access between Pegasus and State Highway 1 is to be by way of a newly created access road linking directly to the State Highway from the south-west sector of the town. There is the potential for increasing traffic volumes on State Highway 1 through Woodend to have adverse effects on the safety and efficiency of roads in the town and on the amenity values of the town. This is recognised as an existing problem, which will become more pronounced as population growth continues in the District. The development of Pegasus will accelerate the need to find a roading solution to these problems for Woodend. The viability of a State Highway bypass around Woodend has been investigated by the Council and Transit New Zealand. The results of these investigations were reported in the Waimakariri District

Transport Study – Final Report (September 2001). It is considered that, with increasing traffic volumes as a result of both natural increases in the traffic volumes on the State Highway and of the development of Pegasus construction of such a bypass is likely to be justified within the next 10 years. The development of Pegasus and its access roads has been designed to facilitate a direct connection to such a bypass when it is constructed.

Other access roads to Pegasus are Gladstone and Preeces Roads. Neither of these roads are of sufficient standard to act as major access points to the town. Gladstone Road has formation and alignment limitations and passes through the residential areas of Woodend. Preeces Road is currently very narrow and its intersection with State Highway 1 has an unsatisfactory alignment for a major connection to a State Highway. These roads are not to be used as major access points to Pegasus, although connections with the town are designed such that these will be available for use as minor access roads and for use in emergencies.

Within the new town, roading is to be designed to provide safe and convenient access throughout the town, in particular linking the residential areas with the major facilities in the town, and to facilitate the provision and use of an efficient and convenient public passenger transport service. Walking and cycling linkages associated with the road network are also to be established throughout the town.

Methods

District Plan Rules 11.1.1.8.1

Controls over access to and from Pegasus from existing roads.

Controls over roading layout and standards within the town.

Requirements relating to cycling and pedestrian provision.

Requirements for the layout of the town to facilitate walking, cycling and passenger transport and to reduce vehicle trips generation and trip lengths.

Financial and Development Contributions 11.1.1.8.2

Requirements for financial or development contributions towards upgrading of existing Council roads in the vicinity of Pegasus.

Liaison With Road Owners and Managers 11.1.1.8.3

Ensuring liaison and consultation with Transit New Zealand, asset managers, utility providers, the Canterbury Regional Council and adjoining territorial authorities when appropriate.

Liaison With Developers 11.1.1.8.4

Liaison with the developers of Pegasus to co-ordinate development with roading programmes and to explore alternative solutions to short and long-term roading issues.

Policy 11.1.1.9

Avoid patterns of land use development which may affect the operation, and efficient use and development of Christchurch International Airport.

Explanation

Christchurch International Airport is a significant regional resource. Noise sensitive activities within the 50dBA Ldn airport noise contour in the Waimakariri District have the potential to constrain the operation of Christchurch International Airport through limits on operating hours in response to the concerns from residents subject to the noise nuisance from aircraft approaching and leaving the Airport.

CROSS REFERENCE: Policies 12.1.1.9 and 14.3.1.1

Methods

District Plan Rules 11.1.1.9.1

Rules providing that subdivision and dwellinghouse development involving areas of less than four hectares in the Rural Zone is a non-complying activity.

District Plan Maps 11.1.1.9.2

Map the location of the 50dBA Ldn noise contour.

CROSS REFERENCE: Method 12.1.1.9.3 and District Plan Map 138

Principal Reasons For Adopting Objectives, Policies and Methods 11.1.2

“In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to:...

- (b) The efficient use and development of natural and physical resources:
- (c) The maintenance and enhancement of amenity values:...
- (f) Maintenance and enhancement of the quality of the environment:
- (g) Any finite characteristics of natural and physical resources:..”

(section 7 Resource Management Act 1991).

“Every territorial authority shall have the following functions for the purpose of giving effect to this Act in its district:

- (a) The establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district:..”

(section 31(a) Resource Management Act 1991).

The Canterbury Regional Council's Regional Policy Statement addresses the issue of the need to protect transport infrastructure from inappropriate development: "Protect Canterbury's existing transport infrastructure and land transport corridors necessary for future strategic transport requirements by avoiding, remedying, or mitigating the adverse effects of the use, development or protection of land and associated natural and physical resources on the transport infrastructure" (Regional Policy Statement (15.2 Policy 1)).

Regional Policy Statement 12.2 requires the discouragement of noise sensitive activities, particularly residences and residential activity in the vicinity of airports.

In addition, the Regional Policy Statement recognises that there is considerable potential for issues to arise where utilities cross jurisdictional boundaries. Utilities that are part of a national network are an example. The Regional Policy Statement states:

"It is also necessary to have processes for dealing with...

(b) issues which cross local authority boundaries or issues between territorial authorities or between regions" (Regional Policy Statement (20.1)).

Utilities are one of the key means of furthering the sustainable management of natural and physical resources in a way that enables communities to provide for their economic and social wellbeing, and their health and safety. The objective acknowledges this and provides a focus for standards set out in policies.

Subdivision and development of land are usually followed by intensification and changes in land use that increase the demands on existing utilities. It is appropriate for servicing requirements to be addressed at the time of subdivision or development. This ensures that efficient and effective systems are provided or enhanced. It also ensures that the additional costs of servicing do not fall on the community generally.

Roads, water supply, stormwater drainage, sewage disposal, street lighting, electricity and communications services are important for the wellbeing of people and communities and for their health and safety. Reticulated systems are preferred as they generally are more sustainable and provide a better quality of service with less adverse effects on the environment than individual facilities. Where reticulated services are not available, then special consideration of the possible adverse environmental effects on the future activities on the land is needed. Underground reticulation of electricity and communication systems will be required in some areas to avoid adverse visual effects. The siting of utilities in sensitive areas such as wetlands, indigenous vegetation remnants, coastal areas and outstanding landscape areas will be discouraged unless there are compelling operational reasons. Co-siting of infrastructure will be encouraged. Utility and services requirements on subdivision and development are also addressed in Chapter 30: Utilities and Traffic Management – Rules.

The Council is preparing a District Development Strategy which will confirm priorities and programmes for new and upgraded utilities beyond the life of the District Plan. It is a major method for co-ordinating utility provision with land development. This is important to provide for integrated management of some of the effects of land use and development.

The principal reasons are to maintain and enhance the quality of the environment, enhance the amenity value of the District and to assist the efficient use of resources in a sustainable manner.

Policy 11.1.1.8 and part of the Explanation to Policy 11.1.1.2 specifically recognise the resource management issues associated with servicing and traffic management for Pegasus. The development of a new town for 5000 people requires that detailed consideration be given to the upgrading of existing utilities and the development of new utilities, to ensure that the quality and amenity values of the District's environment is not degraded and that resources are able to be used efficiently.

Issue 11.2

The provision, use, maintenance and upgrading of utilities can have adverse effects on the environment including public health.

Objective 11.2.1

Adverse effects on the environment caused by the provision, use, maintenance and upgrading of utilities are avoided, remedied or mitigated.

Policy 11.2.1.1

Avoid, remedy or mitigate adverse environmental effects created by the provision, use, maintenance and upgrading of utilities by:

- a. meeting environmental standards set by the Plan;
- b. having regard to the particular amenity or character of the area in which it is placed;
- c. integration with, and co-siting of, existing utilities where they are accessible and are, or can be, expanded to manage any additional loading and where such loading is technically and operationally feasible;
- d. meeting accepted design standards;
- e. in the case of the utilities associated with the development and occupation of Pegasus, requiring adequate redundant plant to be provided as part of the sewage treatment and disposal system, in order to avoid adverse effects on the surrounding environment in the event of any plant breakdown or loss of power supply;
- f. encouraging new utility services in residential areas to be placed underground, in consultation with utility operators;
- g. encouraging the under grounding of utilities as they are installed and upgraded in areas where the visual and amenity impact of overhead reticulation is significant, provided that under grounding is technically and operationally feasible;
- h. protection of areas of outstanding landscape, or areas of significant indigenous vegetation or significant habitat of indigenous fauna;
- i. requiring all new roads to be sealed and existing metal roads to be sealed where appropriate;

- j. protecting aquatic ecosystems and the habitat of trout and salmon from the adverse effects of roading, stormwater runoff and effluent discharges;

CROSS REFERENCE: Policies 6.3.1.1 and 6.3.1.2

- k. avoiding or mitigating in the receiving environment the noise effect created by aircraft approaching Christchurch International Airport; and

CROSS REFERENCE: Policy 12.1.1.9

- l. avoiding land uses under airfield approach paths that could adversely affect the safety of airfield operations.

Explanation

Utilities need to be designed and maintained to meet environmental standards in the District Plan. Environmental, amenity and character standards and levels are reflected in the Plan's rule and/or method framework.

The provision of infrastructure can have adverse effects on the cultural, heritage, spiritual, and natural values of the District. Their impact is generally greater in residential, landscape, ecological areas and areas of cultural significance. Examples are earthworks associated with building a reticulation system, or the siting of parts of the utility such as pylons on land of special significance.

Utilities should be located, designed, constructed and screened to avoid, remedy or mitigate their visual impact on outstanding landscapes, the coastal environment, residential zones, areas of significant indigenous vegetation and significant habitat of indigenous fauna, and the character of an area. In addition, utilities such as some telecommunications or power lines may not be appropriately sited near dwellinghouses, educational and some workplace institutions. One of the means of achieving this is apt design, siting and routing of the utility. Often this is most appropriately achieved by underground reticulation, particularly in residential areas. Where the visual impact of overhead reticulation is significant as in residential areas, the policy encourages the undergrounding of utilities in new developments and their undergrounding when the utility is being upgraded. For rural areas, gains in visual and amenity characteristics may not be sufficient to offset the increased cost of undergrounding. Where undergrounding reticulation is not an option, control over location and appearance such as siting, colour, and screening may be a consideration. However large structures as part of the utility are generally inappropriate in residential areas, the coastal environment, outstanding landscapes, and ecological areas.

CROSS REFERENCE: See Policy 11.2.1.2 regarding high voltage transmission lines

For all these effects, matters that could be considered include the scale of the utility, its dominance in the landscape and the impact of its development and operation on the amenity of the area. In some circumstances however, there is little point in regulating for temporary activities such as those associated with construction. Nor is there justification for regulating utilities in areas where their impact is not significant. Economic and operational necessities may mean some effects are tolerated so that the overall sustainable management of the District's resources is promoted.

The ability to control the effects of the operation of Christchurch International Airport is limited. However the effects can be:

- avoided to some degree by requiring that noise sensitive activities be discouraged from locating within areas identified as likely to be affected by such noise and in particular within the 50dBA Ldn noise contour, and
- partially mitigated by a requirement for noise insulation of buildings or activities shown in Table 31.2 within the 55dBA Ldn noise contours.

In the case of Rangiora Airport, protection of take-off and approach paths avoids potential for conflict and safety issues that may arise as a result of inappropriate development.

Utilities may be on sites designated for that purpose. The effect of a designation is that the requiring authority responsible for the designation may do anything that is in accordance with the designation, irrespective of the policies or rules in the District Plan that might otherwise control the activity. Persons other than the requiring authority may not, without the prior written consent of the requiring authority, do anything in relation to the designated land that would prevent or hinder the project or work to which the designation relates. The rules of the District Plan regulate the effects of activities not covered by the designation.

Utilities should be built and operated in a manner that avoids, remedies or mitigates their impact on the environment. As subdivision can result in the provision of utilities, there are subdivision standards that recognise these requirements. Liaison, to promote planning for future utility provision, with organisations that provide utilities, also assists integrated resource management.

CROSS REFERENCE: Policy 14.3.1.1

Methods

District Plan Rules 11.2.1.1.1

Status and scale of utilities.

Visual impact of new utilities.

Performance standards for landscaping, setbacks and screening.

Environmental standards for utilities.

Subdivision standards for utilities.

Standards to protect take-off and landing surface of Rangiora Airfield.

Controls requiring noise insulation of dwellinghouses within the 55dBA Ldn noise contour of Christchurch International Airport.

Non-complying activity status for subdivision and dwellinghouse development involving areas of less than four hectares in the Rural Zone.

Liaison 11.2.1.1.2

Liaison with providers and operators of utilities to promote and manage efficient development.

Liaison with the Department of Conservation over fish passage requirements.

Service Provision 11.2.1.1.3

Efficient management of the Council's works and services.

District Development Strategy 11.2.1.1.4

A non-statutory document setting out the Waimakariri District Council's preferences as service, facility, and utility provider for the location and nature of future development including proposals for the integrated and staged provision of the services, facilities and utilities required by that development. The strategy is drawn around urban design principles and a 20 year planning period.

Financial and Development Contributions 11.2.1.1.5

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Engineering Code of Practice 11.2.1.1.6

A set of engineering standards developed by the Waimakariri District Council for District Council services.

Annual Plan 11.2.1.1.7

Identify Council activities and priorities related to provision of services.

Strategic Plan 11.2.1.1.8

Identify Council direction and priorities for action.

Road Sealing Upgrading Priority List 11.2.1.1.9

Sets out the priority order in which District roads will be sealed.

Policy 11.2.1.2

To minimise any actual or potential risks to health or safety from high voltage transmission lines by encouraging the location of lines away from incompatible land uses and avoiding development, which might increase those risks, near any lines.

Explanation

Actual or potential risks to public health and safety can be minimised by avoiding development such as dwellinghouses directly below the lines. Maintaining a separation distance between transmission lines and incompatible land uses also assists in avoiding issues of reverse sensitivity in terms of noise, interference and visual impact. An assessment of risks associated with the lines includes evaluating an emergency event resulting in line failure. For the purpose of this policy, assessment should occur for the human occupancy of buildings within 32 metres of the centreline of high voltage transmission lines.

CROSS REFERENCE: Policy 11.2.1.1

Methods

Advocacy 11.2.1.2.1

Work with utility operators to encourage appropriate siting of high voltage transmission lines.

Liaison 11.2.1.2.2

Liase with adjacent territorial authorities where the network utility crosses a territorial boundary.

District Plan Maps 11.2.1.2.3

Map high voltage power lines on District Plan Maps.

District Plan Rules 11.2.1.2.4

Controls on subdivision where compliance with the NZECP 34:2001 "New Zealand Electrical Code of Practice for Electrical Safe Distances" cannot be achieved and/or where structures are proposed within 32 metres of the centreline of high voltage transmission lines.

Controls on subdivision where earthworks are to be undertaken in positions which may impact on high voltage transmission lines or support structures.

Controls on structure placement to ensure safe separation distance from conductors.

Principal Reasons For Adopting Objectives, Policies and Methods 11.2.2

Reasons for this objective and policy are derived from sections 5, 7 and 31 of the Resource Management Act 1991. Additionally, "...every person has a duty to avoid, remedy, or mitigate any adverse effect on the environment arising from an activity carried on by or on behalf of that person,..." (section 17(1) Resource Management Act 1991).

The District Plan will seek to minimise the adverse environmental effects of utilities while recognising their benefit to the community. This can be achieved by appropriate siting of the utility and avoiding

placing utilities in sensitive areas such as wetlands, significant areas of indigenous vegetation or the coastal environment. Utilities can have an effect on the character and visual environment of an area. Their visual character is often linear giving a strong impact, especially in residential areas. Undergrounding utilities is an effective way to avoid many of the environmental impacts, particularly visual impacts, that may otherwise occur. Some utilities are perceived by some members of the public to be of public health significance and there is a need to ensure utilities are appropriately sited.

Co-siting is encouraged for the efficiencies it promotes in the use of land for utilities. However it is also recognised that it may be necessary to locate away from areas of co-siting and that consideration should be given to operational requirements as well as those for visual impact.

The establishment of utilities can also have adverse effects through their construction phase. This phase is usually short-lived and impacts are temporary unless the activity is in a sensitive area such as a wetland or significant site of indigenous vegetation. Rules for earthworks elsewhere in the Plan apply.

Anticipated Environmental Results and Monitoring 11.3

| Anticipated Environmental Result | Monitoring Indicator | Information | Monitoring Frequency |
|---|--|--|--|
| Efficiency of use of natural and physical resources | Number of subdivisions and developments not connected to a utility | Subdivision and development complaints Inspection, records, subdivision and land use consents | Annually |
| Environmental degradation is minimised | Utility meets minimum environmental standards | Plan standards Subdivision and land use consents Complaints | |
| Community's health and safety is maintained | Accidents, incidents, notifiable diseases | Public health records, Health Officer reports | Annually |
| Minimal impact on amenity, cultural, heritage and spiritual values | Utility meets minimum plan standards | Plan standards, community attitudes, complaints | Annually |
| Cost effective provision of services Travel distances and times, convenience | Capital and maintenance costs Change in usual distance travelled Change in travel time | Annual plan Residents travel survey Travel time surveys | Annually 3 yearly Annually |
| Modes of transport used | Modal splits by population group (urban/rural) | Residents travel survey | 3 yearly |

