# 16 NETWORK UTILITIES

## 16.1 Background

This chapter outlines the provisions of the District Plan that relate to network utilities within Upper Hutt City. Network utilities provide the infrastructure which enables a community to undertake its everyday activities and functions and allows people to provide for their social and economic wellbeing, and their health and safety. Network utilities which are managed through this Chapter include those defined through reference in section 166 of the Resource Management Act 1991. A definition of network utilities is included in Chapter 35, Definitions.

The City has a range of network utilities that serve an important function locally, regionally and nationally, some of which are critical and life-supporting. In particular, State Highway 2 and the Wairarapa Railway Line provide the link from Wellington and Hutt City to Upper Hutt and the Wairarapa. There are also a number of transmission assets associated with the National Grid located within the City.

The Regional Policy Statement for the Wellington Region recognises the importance of regionally significant infrastructure within the Region, as forming part of national or regional networks that enable communities to provide for their social, economic and cultural wellbeing and their health and safety. There are a number of network utilities within Upper Hutt City that are identified as being regionally significant infrastructure in the Regional Policy Statement. The Regional Policy Statement requires that the benefits of such regionally significant infrastructure be recognised and protected in the District Plan.

The Council is required to give effect to any National Policy Statement. The National Policy Statement on Electricity Transmission came into force in 2008 and applies to effects on and effects of the transmission network". The National Policy Statement on Electricity Transmission's objective is to recognise the national significance of the National Grid by facilitating the operation, maintenance and upgrade of the existing transmission network and the establishment of new transmission resources to meet the needs of present and future generations while: managing the adverse environmental effects of the network; and managing the adverse effects of other activities on the network.

There are many providers of network utilities within Upper Hutt City including the Council, Crown agencies, the Greater Wellington Regional Council, State Owned Enterprises, trading enterprises and private companies. The Council is in itself a major provider of network utilities and services, supplying water, sewage and stormwater reticulation, waste disposal and roads.

Other utilities that are managed through this Chapter because of their

nature and function are navigation aids, beacons, signal stations and natural hazard warning devices and meteorological services[1]. These other utilities are owned and / or operated by Maritime New Zealand, local authorities or the Meteorological Service in order to provide for the health, safety and wellbeing of the local community, region and nation.

The successful functioning of the City depends on network utilities. It is therefore very important that construction, maintenance, upgrade and operation of these services be effectively provided for, technical and geographical constraints on the operation of network utilities are acknowledged and that the benefits that derive from them are adequately recognised. Network utilities can be vulnerable to reverse sensitivity effects when new buildings or structures and activities (that are sensitive to the effects of the existing network utility) are established nearby, leading to constraints on the operation of the network utility. However, network utilities can also have adverse environmental effects resulting from their construction, operation or associated maintenance activities.

For example, network utilities may typically include buildings, poles, overhead wires, pylons, pipes or antennas, which may have an adverse visual impact depending on their location and proximity to other land use activities. The installation and upgrading of network utilities will also typically involve earthworks. However, network utilities may also involve few structures and have limited visual impact, such as underground power and telecommunication lines. Network utilities are also often seen as a necessary and normal part of the environment, such as a road.

The network utility rules apply where network utility operators do not hold a designation for their activities under the designation procedures of the Act. They may, however, also be used by Council to help assess any notices of requirement for new designations.

The provisions in this Chapter apply to network utilities throughout all zones of the City. The underlying zone objectives, policies and rules do not apply to network utilities, including roads, unless specifically referred to. City wide rules, such as those relating to earthworks, notable trees, flooding and fault band hazards, the Southern Hills Overlay and Protected Ridgelines, historic heritage and hazardous substances will still apply. As identified in Council's Planning Maps, all activities that take place within roads are subject to the relevant zone rules which pertain to the area in which the road is situated, as well as the City-wide rules. Where a road separates different zones on opposite sides of the road, the centre line of the road defines the boundary of the two zones.

[1] The Meteorological Service is a requiring authority for its network operation of a system comprising telecommunication links to permit telecommunication and radiocommunication. Therefore, these aspects of meteorological service activities and facilities are network utilities.

## 16.2 Resource Management Issues

### 16.2.1 *Balancing the national, regional and local benefits of network utilities with effects on the local environment.*

An important issue is managing the actual and potential adverse environmental effects arising from network utilities while also recognising the key role they play and benefits they have locally, regionally and nationally, and to ensure the technical and operational requirements of the network utility concerned is not unreasonably restricted. Failing to adequately provide for network utilities may result in the desired level of well-being and quality of life not being achieved within the City. This is because network utilities provide essential services to people's homes and businesses, such as water, transport means, electricity, gas and telecommunications, and are critical for the effective functioning and liveability of the City.

The high voltage electricity transmission lines that form part of the national grid play a vital role in the well-being of the community. The adverse effects of the high voltage electricity transmission lines are often local, while the benefits may be in a different locality and/or extend beyond the local to the regional and national.

However, the construction, operation and/or maintenance of network utilities can have adverse effects and adversely affect the amenity of areas of the City, as a result of, for example, noise, emissions, and visual dominance. Some network utilities are relatively large, visually prominent and capable of generating significant adverse effects on the surrounding environment. They may also have potential or perceived adverse effects on public health and safety. Adverse effects may only occur at the time of construction or installation of the network utility, but in some instances may continue throughout its operation or during maintenance and upgrade works. In some cases, it might not be entirely possible to avoid, remedy or mitigate all adverse effects associated with a network utility, meaning there may be some level of residual adverse effect on the surrounding environment. In such circumstances, there is a need to carefully consider both the benefits the network utility will provide and the significance of the adverse effects on the surrounding environment.

Network utilities and their on-going functioning can be affected by flood hazards. It is also possible for network utilities to increase the impact of flood hazards, particularly where linear infrastructure crosses stream or river corridors. The effect of flood hazards on new network utilities and the impact of new network utilities on the flood hazards needs to be avoided or mitigated.

**16.2.2** ***Managing adverse effects including reverse sensitivity effects on regionally significant network utilities.***

Inappropriate subdivision, use and development in the vicinity of regionally significant network utilities may lead to adverse effects including reverse sensitivity effects that have the potential to impact upon the effective and efficient operation of such utilities. Inappropriate subdivision, use and development may result in adverse effects on regionally significant network utilities and / or restrict access to such network utilities including the ability to undertake maintenance or upgrade work. Reverse sensitivity can occur when sensitive or inappropriate activities locate near to or intensify by existing network utilities and seek to or constrain the operation or expansion of these utilities. This may mean that the local, regional and national benefits of those regionally significant network utilities may be compromised. The City has a lot of well-established regionally significant network utilities located in close proximity to existing land use activities. The Council is predominantly concerned with new more intensive land use activities establishing in proximity to existing regionally significant network utilities that may lead to reverse sensitivity effects on those utilities.

**16.2.3** ***The efficient, convenient and safe movement of people, vehicles and goods in the City.***

The location, design and characteristics of activities, subdivision and development can adversely affect the safety, accessibility and efficiency of the roading network and the quality of the environment. Appropriately located activities, and well-designed subdivision and development, can contribute to the convenience and viability for access by walking, cycling and public transport. Roads themselves (including the State Highway network) contribute to the convenience, viability, and access to activities enjoyed by City residents.

**16.2.4** ***The limits that rural roading places on subdivision and development.***

Mangaroa Hill Road, Blue Mountains Road, Akatarawa Road, and parts of Moonshine Hill Road and Mount Cecil Road require major upgrading to be able to accommodate further significant development. Such upgrading may have significant adverse environmental effects.

The limits that the rural roading system places on further development not only apply to formed and sealed roads, but also to the large number of 'paper roads' within the City. The pressure to subdivide with access to these paper roads can pose a public interest issue. Council could be placed in a position where it may have to spend public money on road upgrading where the community would receive little benefit in return. The limited access provisions applying to State Highway 2 and the nature of other roads in the Kaitoke area impose limits on further development in this part of the City.

**16.2.5** ***The potential adverse effects generated by subdivision and development in close proximity to high voltage (110kV or greater) electricity transmission lines.***

There can be a risk to the health and safety of nearby people and property when development occurs within close proximity to high voltage electricity transmission lines. Equally, development located under or in close proximity to high voltage electricity transmission lines can pose a risk to the efficient operation of the national grid.

Additionally, development in close proximity to high voltage electricity transmission lines generally does not provide a good level of amenity, particularly in the case of residential development or other sensitive activities.

## 16.3 Objectives

**16.3.1** ***To recognise and protect the benefits of regionally significant network utilities and ensure their functions and operations are not compromised by other activities.***

This objective seeks to identify the importance of regionally significant network utilities within the City and to give effect to the Regional Policy Statement. The objective and supporting policies are focused on recognising the benefits that these regionally significant network utilities have locally, regionally and nationally and ensuring that they are protected from incompatible subdivision, use and development.

**16.3.2** ***The sustainable, secure and efficient use and development of the high voltage (110kV or greater) electricity transmission lines which avoids, remedies or mitigates adverse effects on the environment and recognises the technical and operational requirements and constraints of the network.***

The efficient transmission of electricity on the national grid plays a vital role in the social, economic and cultural well-being of people. Technical, operational and security requirements associated with high voltage electricity transmission lines can limit the extent to which it is feasible to avoid or mitigate all adverse environmental effects.

**16.3.3** ***To recognise and provide for the sustainable, secure and efficient use, operation, maintenance and upgrading and development of network utilities within the City.***

This objective requires that the benefits of network utilities including

those that are not identified as regionally significant be recognised and provided for. Network utility services form an essential part of the City's physical resource and provide for the community's social, cultural and economic well-being. They provide essential services to people's homes and businesses, such as water, transport means, electricity, gas, radiocommunications and telecommunications and are critical for the functioning and liveability of the City. Natural hazards such as flooding can threaten the continued security and operation of the network utilities. Failing to adequately provide for network utilities and protect them from natural hazards may result in the desired level of well-being and quality of life not being achieved within the City.

**16.3.4** ***To manage any adverse effects on the environment resulting from the design, location, construction, operation, upgrading and maintenance of network utilities.***

This Objective recognises that the construction, operation, upgrade and maintenance of network utilities can adversely affect the environment and amenity, and seeks to manage potential adverse effects, particularly through design and location. This recognises that some network utilities are relatively large, visually prominent and capable of generating significant effects on the environment. They may also have adverse effects on public health and safety. Adverse effects may only occur at the time of construction or installation of the utility, but in some instances may continue throughout its operation or during maintenance and / or upgrade works. For new lineal infrastructure, adverse effects are often best able to be mitigated through the route selection process. However, in some cases, it might not be entirely possible to avoid, remedy or mitigate all adverse effects associated with a network utility, meaning there may be some level of residual adverse effect on the surrounding environment. In such circumstances, there is a need to consider both the benefits the network utility will provide and the significance of the adverse effects on the surrounding environment.

**16.3.5** ***To ensure the continued operation of network utilities, and the development and operation of new network utilities, in flood hazard extents and to maintain the function of the floodplain to convey flood waters.***

Network utilities have the potential to impede or block water during a flood event and increase the risk to surrounding people and properties. This is particularly so, when linear structures cross a river or stream corridor and have not been designed to take into account the 1:100 year flood height.

Network utilities play a critical role in the functioning of community. Network utilities that are damaged or destroyed during flood event may slow the ability for the community to recover or worsen the effects from flooding (for example sewerage in floodwaters).

## 16.4 Policies

**16.4.1** ***Identify regionally significant network utilities within the City on Council planning maps, as practicable.***

The Council has identified regionally significant network utilities within the City on its planning maps. The majority of any new and extensions to existing regionally significant network utilities are expected to be identified on Council planning maps by network utility operators through a notice of requirement for designation process. In the case of the National Grid, which is not designated, this network is specifically recognised and mapped, as required by the National Policy Statement on Electricity Transmission. Due to the scale of the planning maps and the extensive nature of some regionally significant network utilities, it is however not feasible to identify all regionally significant network utilities on Council planning maps, particularly the local gas distribution lines.

**16.4.2** ***Recognise the national, regional and local benefits of regionally significant network utilities.***

Regionally significant network utilities provide benefits within the City, regionally and nationally. These are benefits that are to be considered in respect of any matter relating to regionally significant network utilities. Some of the benefits are:

- That people and goods can travel to, and from and around the City and Region efficiently and safely;
- That community well-being and public health and safety is maintained through the provision of essential services including supply of potable water and the collection, transfer and appropriate treatment of sewage and stormwater; and
- People have access to electricity and gas to meet their needs.

**16.4.3** ***Avoid, or as appropriate, remedy or mitigate, the potential for any adverse effects including reverse sensitivity effects on regionally significant network utilities from inappropriate new subdivision, use and development occurring under, over, or adjacent to regionally significant network utilities.***

Any potential adverse effects including reverse sensitivity effects, on regionally significant network utilities are to be appropriately managed, with priority given to avoiding adverse effects, where practicable, on those utilities. The location of inappropriate new subdivision, use or development in proximity to existing regionally significant network utilities has the potential to compromise the efficient operation and use of the network utility including restricting access and result in the benefits of that network utility being reduced. In addition, the safety and amenity values of the community may be adversely affected by locating in too close proximity to regionally significant network utilities. The potential for adverse effects including reverse sensitivity effects may arise when the pattern and density of land use activities changes through the subdivision or rezoning of land. At the time of rezoning, the Council will seek to introduce new provisions to manage those potential adverse effects on existing or designated regionally significant network utilities. Any applications for subdivision that involve potential intensification located in proximity to regionally significant network utilities will require assessment in terms of the potential effects on those utilities as well as consultation with the relevant network utility operator.

**16.4.4** ***To promote the safe and efficient use and development of the transportation network.***

The transportation network is a major physical resource in the City. The land and other resources used for transportation need to be sustainably managed.

There are a number of reasons for promoting a safe and efficient transportation network, including:

- The land and associated resources required by the existing transport system represent a significant level of investment and commitment. To promote the purpose of the Act, it is desirable that existing systems are used and developed efficiently.
- The efficient use of energy and resources in the design, management and use of transportation systems should be promoted.
- Efficiency would be promoted through the integration of different modes and types of transport and by improving the network. The beneficial effects of any development such as increases in safety or reduction in travel times must also be taken into account.

The transport system also needs to be maintained and developed without creating significant adverse effects on the environment.

Minor changes to the transport system can be undertaken without the need for stringent controls, although they may need monitoring to identify and manage their cumulative effects. However, large-scale transportation projects, or developments within areas of environmental sensitivity, require careful assessment to identify potential effects and possible mitigation measures.

Rural roads place limits on further development in certain areas of the City because of their condition or potential capacity. Closer subdivision in these areas may be restricted because of the demand that it would place on these roads and the likely costs incurred by the Council. Other rural activities can cause damage to roads or create dangerous situations where roads are not designed to accommodate such traffic. The upgrading of such roads can place a heavy financial burden on the community and have significant adverse environmental effects. Therefore, a requirement for financial contributions and/or limitations on development is an appropriate response.

**16.4.5** ***To promote accessibility within the City and between the City and neighbouring areas.***

Access into and around the Central Business District, suburban shopping areas and industrial areas is important for both businesses and the community. This is facilitated by the availability of adequate car parking facilities and the close proximity of railway stations and the bus interchange.

In certain circumstances, car parking can have an adverse effect on the environment of an area. The proliferation of on-street car parking can adversely affect the visual and amenity values of an area, generate noise and make manoeuvring of vehicles difficult and unsafe. It may be necessary to require that sufficient on-site car parking is provided for any proposed activity, or that a financial contribution is made so that it can be developed by Council to avoid problems. The car parking requirements of the Plan have been developed on the basis of anticipated car parking demand and availability of car parking facilities.

The ability of people to have access to a variety of transport modes enables greater choice and means that transportation services can be used in a more efficient manner.

Comprehensive Residential Developments in the Residential (Centres Overlay) Areas provide for a reduced level of car parking requirement, in order to build on the availability of a range of transport modes and encourage increased use of public transport, and in recognition of the ability of certain roads to accommodate excess parking demand.

Most of Upper Hutt is well suited to cycling because of its topography. The bicycle is a useful, efficient and environmentally friendly form of transport. Although cycling is catered for within the present roading system, conflict can arise between cyclists, pedestrians and vehicular traffic. These conflicts need to be minimised or avoided to promote safety and encourage people to use dedicated cycling facilities. Convenient cycling and walking routes to community focal points need to be provided by linking streets, reserves, car parking areas and shopping centres.

**16.4.6** ***To ensure that the subdivision, use and development of land is served by safe and adequate access from the roading network***

The roading network provides access to a wide range of activities. It is important to ensure that connections to the network are located, designed and maintained so as to provide for the safety of all road users.

**16.4.7** ***To manage subdivision and development within close proximity to existing high voltage (110kV or greater) electricity transmission lines to protect both:***

***(a) the safe, secure and efficient use and development of the electricity transmission network; and***

***(b) the safety and amenity values of the community.***

A corridor management approach involves setting minimum buffer distances from high voltage electricity transmission lines to manage development both in the immediate proximity of and adjacent to the lines.

**16.4.8** ***To recognise and provide for the:***

- ***need for new and the maintenance and upgrading of existing network utilities; and***
- ***technical and operational requirements and constraints of network utilities in assessing their location, design, development, construction and appearance; and***
- ***benefits that network utilities provide to the economic, social and cultural functioning of the City, Region and Nation.***

The provision of new and the upgrading of existing network utilities is necessary to meet the needs of City, both now and into the future. In considering any proposals for new or upgrades to existing network utilities, the technical and operational requirements that may constrain where and how they can locate and be designed need to be recognised. In some cases, some level of adverse effects may need to be accepted to recognise the necessity for and benefits derived from, some network utilities and meet their operational requirements. This policy also recognises the benefits that all network utilities have.

**16.4.9** ***Enable the efficient construction, installation, operation, upgrading and maintenance of network utilities.***

Network utilities have an important role in providing for the wellbeing of the City's community and beyond. Network utilities form an essential part of the efficient functioning of the City and their maintenance and development allows their benefits to be realised. There are a range of network utilities that enable communities to undertake everyday activities and functions and provide essential services to people's homes and businesses. It is therefore important that the District Plan provides for network utilities to be constructed, installed, operated, upgraded and maintained.

**16.4.10** ***Ensure that the provision and operation of utilities that cross jurisdictional boundaries is managed in an integrated manner.***

Most network utilities cross jurisdictional boundaries between councils. Cross boundary issues can result for network utility providers and for the community, particularly where different councils have different rules or processes for how they recognise and provide for network utilities and manage their effects. It is important that councils work together in an integrated manner both when developing plan provisions and when dealing with proposals for new or upgrades to existing network utilities.

**16.4.11** ***Encourage the appropriate use of designations for new network utilities and extensions to existing network utilities that are not designated.***

Network utility operators, particularly those who operate regionally significant network utilities, should use the notice of requirement for designation process, where appropriate when they seek to develop new or extend existing network utilities. This is particularly encouraged for operators where such new or extended network utilities involve restrictions on the use of privately owned land and may require land acquisition. It is recognised that not all network utility operators use designations, particularly those that do not operate linear infrastructure.

**16.4.12** ***Ensure that network utilities are designed, developed, constructed, located, upgraded, operated and maintained to avoid, remedy or mitigate any actual or potential adverse effects on the environment.***

There are a range of different network utilities with different potential adverse effects on the environment. For instance, above ground network utilities can have adverse effects including visual, noise, traffic, odour and amenity, depending on their size, location, frequency and their scale in comparison with the character of a particular environment. A different activity status applies to some network utilities in the Southern Hills Overlay Area, Open Space and Residential Zones, to reflect that these zones have special environments that are more vulnerable to adverse effects and associated loss of amenity.

**16.4.13** ***Manage effects on health and safety by ensuring network utilities, in particular those emitting electric and magnetic fields, are designed, located, upgraded, operated and maintained to comply with relevant national environmental standards and to meet other nationally recognised standards and guidelines.***

Some network utilities may adversely affect health and safety. For example, telecommunication facilities generate radio frequency

emissions which may have detrimental effects on health. Any potential health effects arising from radiofrequency emissions are addressed by Regulation 4 of the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2008. Electricity transmission/distribution activities can present a risk to health and safety, primarily through the risk of electrocution from direct contact with conductors or as a result of a flashover. The National Policy Statement on Electricity Transmission, and the National Environmental Standard for Electricity Transmission require that the exposures be limited to the guidelines of the International Commission on Non-Ionising Radiation Protection (ICNIRP) to prevent the potential for public health effects. Other possible health and safety risks are accidental spillage or leakage of hazardous substances from gas or petroleum pipelines, explosions from gas or petroleum pipelines, accidental overflow from sewage pump stations, and flooding from damaged/inoperative stormwater systems. Chemicals used in conjunction with some network utilities, such as water treatment plants for example, also pose a risk if an accidental spill occurs. There are a number of relevant national and international standards and guidelines addressing health and safety matters that are external to the District Plan but that must be complied with, including the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2008~~,~~ and the New Zealand Electrical Code of Practice. The International Commission on Non-Ionising Radiation Protection (ICNIRP) Guidelines provide best practice guidance.

**16.4.14** ***Enable the co-location or multiple use of network utilities where this is efficient, technically feasible and practicable and assists with avoiding, remedying or mitigating adverse effects on the environment.***

The co-location and co-siting of network utilities may provide environmental benefits in terms of reduced visual impacts and consolidation of network utilities in existing areas thereby reducing adverse effects on amenity by reducing the need for more network utility structures. While co-location is encouraged it needs to be understood that technical requirements will generally mean that associated structures may need to be taller or bulkier to avoid interference between the two or more providers, such as radio-frequency bands. It is also recognised that co-location is not always possible due to operational issues such as radiofrequency interference, electrical interference, lease arrangements, safety and structural capacity.

**16.4.15** ***Require the underground placement of new network utilities unless***

- ***there are natural or physical features or structures, or technological and operational constraints that makes underground placement impractical or unreasonable;***
- ***they are of a temporary nature and required for emergency purposes or critical events; and***
- ***they are of a nature that they can only operate aboveground.***

The adverse visual effects of certain network utilities can often be managed by putting the services underground. With some exceptions, this is the required approach for those network utilities, such as those with cables that can be located underground. For those network utility structures that need to be located aboveground, particular attention should be given to their design, location and minimising of any adverse visual effects as outlined in Policy 16.4.12. This can be achieved in a number of ways including, where practical, through screening, careful placement, size and appearance and applying different activity status. With the exception of Protected Ridgelines and the Southern Hills, new overhead lines, including electricity lines below 110kV, are provided for as a permitted activity in the Rural and Open Space Zones, recognising the more visual absorptive capacity of those locations, and the practicality of needing to provide for a cost effective means of enabling service development and maintenance in remote less densely populated areas.

New customer connections to existing lines and minor upgrading of existing lines are provided for within the City in recognition that this is an efficient use of an existing resource. However, new above ground lines and their associated supporting structures in areas that do not have existing above ground lines are generally considered to be unacceptable within the City. However it is recognised The policy recognises that particular consideration needs to be given to the efficient use of resources and that there are situations where placing lines underground is, or may be, impracticable or unreasonable.

**16.4.16** ***Encourage the use of roads as network utility corridors in accordance with the National Code of Practice for Utility Operators' Access to Transport Corridors.***

Locating network utilities in the road corridor can assist to minimise the adverse effects of network utilities on amenity and other values as these locations generally have a range of existing network utilities and are less sensitive to new network utilities. However, the effects of these activities require some management to ensure conflicts with the primary function of the road corridor and with each other are avoided.

**16.4.17** ***Encourage network utility providers to consult with local communities on the appropriate placement, location and design of new network utilities.***

In some cases, engaging early with the community about a proposed new network utility may result in an alternative more appropriate location to be identified that both meets the needs of the network utility operator and addresses any concerns that the community may have. In encouraging consultation, the Council recognises that it cannot require network utility operators to consult on permitted activities.

**16.4.18** ***Network utility structures crossing streams within identified Flood Hazard Extents must be installed in a way to avoid contributing to blockages or restricting flood flows or***

***compromising flood mitigation works.***

This policy ensures that network utility structures that cross river and stream corridors do not contribute to blockages or exacerbate the effects from flooding on people or property.

This policy also recognises the need for Network Utility Structures to be designed in a manner that does not compromise flood mitigation works. This is to ensure that the installation of Network Utility Structures does not inadvertently increase the risk to the local community by lowering an existing level of protection that may be provided by the flood mitigation works.

It is also recognised that attaching Network Utility Structures to existing lawfully established structures crossing a stream or river will not increase the effect on flooding as long as the Network Utility Structure is not positioned any closer to the stream or river than the existing structure.

**16.4.19** ***To manage the design and location of network utilities in identified Flood Hazard Extents to ensure their resilience to the effects of flood events.***

It is important that network utilities are able to continue to operate during and after a flood event to help the community respond and recover. This policy ensures directive for the network utilities in Flood Hazard Extents to ensure they are appropriately located and designed.

## 16.5 Methods

**16.5.1** District Plan provisions consisting of the following:

1. Planning Maps that identify the location of both designated and undesignated regionally significant network utilities within the District to the extent practicable.
2. Encourage desigations for new network utilities and extensions to exsiting network utilities that are not currently designated.
3. Management of the location of traffic generating uses through zoning rules and the resource consents process to avoid, remedy or mitigate adverse effects on the safety and efficiency of the transport system.
4. Regulatory Assessment Framework that includes rules and matters of control and discretion to guide assessment of the construction, operation, upgrading and maintenance of network utilities, and inappropriate subdivision, use and development within Electricity Transmission Corridors and subdivision that occurs in proximity to regionally significant network utilities. The framework utilises permitted, controlled, restricted discretionary, discretionary and non-complying activity status and specific matters of control and discretion to assess and manage the actual and potential adverse effects.
5. Plan change(s) to introduce new provisions to manage reverse sensitivity effects on regionally significant network utilities where there are pressures for new or intensification of existing development in proximity to regionally significant infrastructure.
6. Provision of appropriate infrastructure at the time of subdivision.
7. Financial contributions for the upgrading or extension of public infrastructure, or the avoidance, remedying, or mitigation of any adverse effects on public infrastructure.
8. Identification of designations on the Planning Maps and the inclusion of their details in Chapter 36.
9. Identification of high voltage (110kV or greater) electricity transmission lines on the Planning Maps.
10. Management of buildings, structures, earthworks and vegetation within a determined transmission corridor either side of the centreline of high voltage (110kV or greater) electricity transmission lines.
11. Administer, monitor and enforce compliance with the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2008 and the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.
12. Information requirements for certificates of compliance and resource consents for network utilities.
13. Advice notes identifying the relevant national and international codes and standards that also apply to network utilities in addition to the District Plan's Regulatory Assessment Framework.

14. Monitoring and review of the District Plan network utility provisions to assist in assessing the effectiveness of the network utilities provisions in the Plan.

**16.5.2** Planning for the efficient development of infrastructure by liaison and consultation with requiring authorities.

**16.5.3** Council provision and maintenance of transportation infrastructure through its Annual and Strategic Plans and the strategies of roading infrastructure providers.

**16.5.4** The Code of Practice for Civil Engineering Works.

**16.5.5** Efficient management of Council's works and utilities. This would include Council demonstrating a leadership role in the sustainable management and use of its infrastructure.

**16.5.6** Consultation with Transpower when applying policies relating to the transmission network within the City with the potential to adversely affect transmission assets.

**16.5.7** Compliance with relevant national and international codes and standards that also apply to network utilities within the City.

**16.5.8** Education of and building relationships with network utility providers.

**16.5.9** Encouraging network utility providers to engage with the local community when considering new network utilities within the City.

**16.5.10** Where appropriate, hold joint hearings with adjacent territorial authorities in instances where network utilities cross territorial boundaries and undertake joint plan changes to achieve consistency.

## 16.6 Anticipated environmental results and monitoring

The following results are expected to be achieved by the objective, policies and methods in this Chapter. The means of monitoring whether this Plan achieves the anticipated environmental results are also set out below.

| Anticipated environmental results | Monitoring indicators | Data source |
|---|---|---|
| The sustainable management of network utilities throughout the City | Complaints and enforcement procedures<br><br>Types of network utility development<br><br>System failures<br><br>Consultation with regional and national organisations to ensure utilities management is co-ordinated and consistent | Council complaints register<br><br>Council records |
| The avoidance, remedying, or mitigation of the adverse effects of developing and maintaining the City's network utilities | Complaints and enforcement procedures<br><br>Assessment of the effectiveness of selected methods in implementing policies relating to network utilities | Council complaints register<br><br>Council resource consent records |
| The avoidance of potential conflicts between regionally significant network utilities and incompatible development, use and subdivision | Complaints and enforcement procedures<br><br>Assessment of the effectiveness of selected methods in implementing policies relating to regionally significant network utilities | Council complaints register<br><br>Council resource consent records |
| The avoidance of the potential for network utilities to increase flood hazard risk or impact on flood hazard structures. | System failures in flood events.<br><br>Number of resource consent applications approved or declined in areas identified in the District Plan as being susceptible to natural hazards and whether these numbers change with time. | Council records |