

EI - Energy and Infrastructure

Utilities are physical resources which are used to generate and distribute energy, provide water, drain land, dispose and treat sewage, dispose of waste and provide telecommunications, radio-communications, facilities for observing, recording, and communicating weather information, and transportation such as roads, railway lines, and airports. These services and facilities enable people of the District to provide for their social and economic well-being and health and safety.

Utilities located within the Kaikōura District which are of national significance include State Highway 1, the “national grid” electricity distribution system, the South Island Main Trunk Railway and a number of microwave VHF stations required for telecommunication and radio-communication purposes. Other utilities such as flood protection works adjoining river courses are of regional significance, or of local significance such as the Kaikōura landfill site. Within the District, the Council is a major provider of utilities and urban services including water supply, sewage reticulation, waste disposal and roads. Other providers of utilities include the Crown, Regional Councils, other local authorities, State Owned Enterprises, private companies and individuals.

All of the District's settlements and more accessible rural areas are fully reticulated in terms of telephone and electricity. However, while the Kaikōura urban area is almost fully serviced, not all the remaining settlements of the District are provided with reticulated sewage disposal, water supply and stormwater disposal services.

Statutory Framework

A number of the organisations that provide and operate utilities have status as Requiring Authorities under the Act and are able to designate land to provide for their needs. Requiring authorities include a Minister of the Crown, a local authority or *Network Utility Operator* using, developing or protecting any of the resources listed in paragraph 1 above.

Where a *utility* is provided by way of *designation*, the rules of the Plan do not apply to that activity. However, there may be specific conditions 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.

The Second Schedule of the Resource Management Act provides for Councils to include matters of scale, sequence, timing and relative priority of public works, goods and services in the District Plan for which it has financial responsibility. The Council's Annual Plan provides the mechanism by which funding and resources are provided for these works.

Key defined terms for this chapter	
Term	Definition
Designation	has the same meaning as defined in Section 166 of the Resource Management Act 1991, except that for the purpose of this Plan, it includes an area of land designated by a requiring authority for a specific purpose. Requiring authority has the same meaning as defined in Section 166 of the Resource Management Act 1991 which at the date of notification of the Plan means a Minister of the Crown or, a local authority or, a network utility operator approved under section 167 of the Act.
Earthworks (NPS)	Means the alteration or disturbance of land, including by moving, removing, placing, balding, cutting, contouring, filling or excavation of earth (or any matter constituting the land including soil, clay, sand and rock); but excludes gardening, cultivation, and disturbance of land for the installation of fence posts.
Gross Floor Area (GFA) (NPS)	Means the sum of the total area of all floors of a building or buildings (including any void area in each of those floors, such as service shafts, lift wells or stairwells) measured: <ul style="list-style-type: none"> a. where there are exterior walls, from the exterior faces of those exterior walls; b. where there are walls separating two buildings, from the centre lines of the walls separating the two buildings; c. where a wall or walls are lacking (for example, a mezzanine floor) and the edge of the floor is discernible, from the edge of the floor.
Ground Level (NPS)	Means: <ul style="list-style-type: none"> a. the actual finished surface level of the ground after the most recent subdivision that created at least one additional allotment was completed (when the record of title is created);

	<ul style="list-style-type: none"> b. if the ground level cannot be identified under paragraph (a), the existing surface level of the ground; c. if, in any case under paragraph (a) or (b), a retaining wall or retaining structure is located on the boundary, the level on the exterior surface of the retaining wall or retaining structure where it intersects the boundary.
Height (NPS)	Means the vertical distance between a specified reference point and the highest part of any feature, structure or building above that point.
Line	<p>means</p> <ul style="list-style-type: none"> a. any line or wire used or intended to be used as aerial support for a pipe, such as a water pipe; or b. any line or wire or a conductor of any kind used or intended to be used for conveying electricity including electric fence lines and any insulator, casing, minor fixture, tunnel, or other equipment or material used or intended to be used for enclosing, surrounding, or protecting such line, wire or conductor; and also includes any part of a line, but excludes utility support structures; or c. any Telecommunications Line, being a wire or wires of a conductor of any other kind (including a fibre optic cable) used or intended to be used for telecommunications and includes any part of any line and any insulator, casing, minor fixture, tunnel or other equipment for enclosing, surrounding or protecting any such wire or conductor, except for utility support structures.
Network Utility Operator	has the same meaning as defined in the Act, as at the date of notification of this Plan.
Radio Communication Facilities	means any transmitting/receiving devices such as aerials, dishes, antenna, cables, lines, wires and associated equipment/apparatus, as well as support structures such as towers, masts and poles, and ancillary buildings.

<p>Reverse Sensitivity</p>	<p>means a situation:</p> <ul style="list-style-type: none"> a. where an existing lawfully established activity has the potential to adversely affect a proposed or subsequent activity which is in the vicinity of, or adjacent to, the existing activity; or b. where a proposed activity restricts, or has the potential to restrict, the operation of a lawfully established existing activity.
<p>Telecommunication Facility</p>	<p>means any telecommunication line, telephone exchange, telephone booth, telephone cabinet or pay phone, or any other structure, facility or apparatus intended for the purpose of effecting telecommunication.</p>
<p>Utility</p>	<p>means:</p> <ul style="list-style-type: none"> a. utility buildings; b. lines and necessary incidental structures and equipment for the generation, transmission and distribution of electricity, excluding solar panels where the electricity generated by the panels is not distributed beyond the same site on which the panels are located; c. pipes and necessary incidental structures and equipment for transmitting and distributing gas; d. storage facilities, pipes and structures and equipment necessary for the supply, drainage and treatment of water or sewage; e. water and irrigation races, drains, channels, pipes and necessary incidental structures and equipment; f. structures, lines, facilities, plant, equipment and associated works for receiving and transmitting radio communications and telecommunications; g. meteorological activities including structures, lines, facilities, plant equipment and associated works for monitoring, observation and transmission of information on weather and natural hazards;

	<ul style="list-style-type: none"> h. structures, facilities, plant, equipment and associated works for the protection of the community from natural hazards; i. structures, facilities, plant and equipment necessary for navigation by water or air; j. any area of land used principally for the disposal, storage, recovering, or separation of waste or recyclable material, including any associated buildings and on-site retail activities.
Utility Building	means a building, container, cabinet or other similar structure used or intended to be used principally for housing or protecting equipment associated with the operation, maintenance or functioning of a utility, except that this definition does not include structures associated with lines or utility support structures as defined in this Plan.
Utility Support Structure	means any mast, pole, tower or other structure for the express purpose of providing support or elevation for any line or antenna.

Cross-references to other District Plan Provisions
<p>In addition to the zone chapters, several district-wide and overlay chapters also contain provisions that may be relevant for energy and infrastructure activities, including:</p> <p>TRAN - Transport</p> <p>HAZS - Hazardous Substances</p> <p>NH – Natural Hazards</p> <p>LIGHT - Light</p> <p>NOISE - Noise</p> <p>GRUZ - General Rural Zone</p>

Issues

EI-I1	Visual impact and location
The provision of utilities has the potential to adversely affect amenity values and the environment.	
EI-I2	Establishment, use, maintenance, and upgrading
Utilities that provide essential services need to be established, operated, maintained and upgraded in order to enable people and communities to provide for their health, safety and well-being.	

Objectives

EI-O1	Provide for establishment, use, maintenance, and upgrading
To provide for the establishment, use, maintenance and upgrading of utilities in a way that promotes sustainable management of natural and physical resources and which avoids, remedies or mitigates adverse effects on the environment.	
EI-O2	<i>Utility</i> services contribution to community health, safety, and wellbeing
To provide for the health, safety, and well-being of people and their communities by making provision for the establishment, use, maintenance and upgrading of essential <i>utility</i> services.	

Policies

EI-P1	Manage effects of establishment, use, maintenance, and upgrading of utilities
To avoid, remedy or mitigate adverse effects arising from the establishment, operation, maintenance and upgrading of utilities, including effects on public access, areas identified as possessing outstanding natural features or landscapes, significant indigenous vegetation, or significant habitats of indigenous fauna.	
EI-P2	Encourage co-location of facilities

To encourage the co-location of telecommunication, radiocommunication and other facilities where operationally feasible.	
EI-P3	Manage the effects of construction, installation, operation, maintenance, and upgrading of utilities
To avoid, remedy or mitigate the adverse environmental effects arising from the construction, installation, operation, maintenance and upgrading of utilities to maintain the level of amenity expected within different areas and to enable people to provide for their health, safety and well-being.	
EI-P4	Encourage <i>utility</i> providers to self-monitor and evaluate
To encourage operators of large singular networks or utilities to adopt their own monitoring systems to ensure that the effects of the use and operation of utilities are regularly evaluated to minimise the occurrence of adverse effects.	
EI-P5	Require undergrounding of services in certain areas
Where practicable, to require the undergrounding of all <i>lines</i> within General Residential, Commercial, and Settlement Zones and the Kaikōura Peninsula and Ocean Ridge Development Areas and to encourage the systematic replacement of existing overhead <i>lines</i> with underground reticulation within these zones and areas.	
EI-P6	Provide for ongoing use and efficiency of utilities
To recognise the need for maintenance, upgrading and future modification or extension of utilities to ensure their on-going use and efficiency.	
EI-P7	Consider location requirements for utilities
To take into account the location requirements of <i>network utility operators</i> , including associated costs and benefits, when considering possible alternative locations for the establishment of essential utilities relating to power, telecommunications radio-communications, and meteorological services.	
EI-P8	Encourage efficiency of <i>utility</i> providers
To encourage <i>utility operators</i> to adopt more efficient technology and structures to benefit the community, provided any potential adverse effects are mitigated or avoided.	

EI-P9	Encourage <i>utilities</i> in areas with service capacity
To encourage development of <i>utilities</i> in areas where excess service capacity exists in order to promote the efficient use of physical resources.	
EI-P10	Ensure costs are met by <i>utility</i> developers
To ensure the costs of establishing <i>utilities</i> are met by the developer and/or those that will use the utility.	
EI-P11	Ensure maintenance and upgrade costs are met by beneficiaries of <i>utilities</i>
To ensure costs of upgrading and maintaining existing utilities are met by those who benefit from the utilities provided.	
EI-P12	Encourage reticulated sewage reticulation and treatment to improve surface and groundwater quality
To encourage community or public sewage reticulation and treatment in areas where it is necessary to enhance surface and groundwater quality, values of Te Runanga o Ngai Tahu and/or to lessen the risks to public health.	
EI-P13	Require adequate supply and quality, and protection of values of potable water
Where water is required for human consumption, to require the supply of potable water, preferably through reticulation, to: <ul style="list-style-type: none"> a. enhance reliability of supply; b. ensure water quality is maintained and enhanced; and c. ensure the values of Te Runanga o Ngai Tahu are not adversely affected. 	
EI-P14	Require installation of utilities in buildings prior to use
To ensure the provision of utilities to service new development prior to buildings being occupied and activities commencing.	

EI-P15	Maintain urban land drainage systems
To maintain existing urban land drainage systems.	
EI-P16	Avoid <i>reverse sensitivity</i> effects between transmission <i>lines</i> and sensitive receivers
To avoid <i>reverse sensitivity</i> issues between high voltage electricity transmission <i>lines</i> and residential activities in the General Residential, Settlement and General Rural Zones.	
EI-P17	Ensure access to transmission <i>lines</i> in sensitive areas is maintained
To ensure upon subdivision in the General Residential, General Rural and Settlement zones that access to existing high voltage electricity transmission <i>lines</i> is not restricted or prohibited.	

Rules

<p>Exceptions:</p> <p>Zone standards do not apply to utilities, except waterbody separation distance standards in the General Residential, Settlement, and Commercial Zones.</p> <p>All district wide rules shall apply to utilities.</p>
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EI-R1	<i>Lines and support structures</i>
	<p>1. Activity status: Permitted</p> <p>Where:</p> <ul style="list-style-type: none"> a. <i>Lines</i> conveying electricity are limited to a voltage up to and including 110KV with a design capacity up to and including 100MVA per circuit b. Compliance is achieved with EI-S1 to EI-S5. <p>Note: This rule also permits poles, insulators, casings, minor fixtures, tunnels, or other equipment or material used or intended to be used for supporting, enclosing, surrounding, or protecting any <i>line</i>, or part of <i>line</i> permitted under this rule.</p>

	<p>2. Activity status: Restricted discretionary</p> <p>Where:</p> <ul style="list-style-type: none"> a. Compliance is not achieved with EI-S1 to EI-S5 b. <i>Lines</i> and support structures for conveying electricity exceed a voltage of 110KV and exceed a capacity of 100MVA per circuit <p>Matters of discretion:</p> <ul style="list-style-type: none"> 1. The matters of discretion of any standard that is not met 2. Any effect of <i>utility structures</i> and buildings on the landscape; 3. Any effect of associated <i>earthworks</i>; 4. Any effect of <i>utility structures</i> and buildings on the natural character of the coast; 5. Any matters or sites of significance to Te Runanga o Ngai Tahu 6. Any effects on ecological and conservation values.
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EI-R2	Transformers and electricity substations
	<p>1. Activity status: Permitted</p> <p>Where:</p> <ul style="list-style-type: none"> a. Transformers and substations used for conveying electricity are limited to a voltage up to and including 110KV with a design capacity up to and including 100MVA per circuit, which do not contain more than 1000 litres of oil b. Compliance is achieved with EI-S1 to EI-S5.
	<p>2. Activity status: Restricted discretionary</p> <p>Where:</p> <ul style="list-style-type: none"> a. Compliance is not achieved with EI-S1 to EI-S5 b. Transformers and electricity substations for conveying electricity exceed a voltage of 110KV and exceed a capacity of 100MVA per circuit <p>Matters of discretion:</p> <ul style="list-style-type: none"> 1. The matters of discretion of any standard that is not met 2. Any effect of <i>utility structures</i> and buildings on the landscape; 3. Any effect of associated <i>earthworks</i>; 4. Any effect of <i>utility structures</i> and buildings on the natural character of the coast;

	<p>5. Any matters or sites of significance to Te Runanga o Ngai Tahu</p> <p>6. Any effects on ecological and conservation values.</p>
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EI-R3	Poles or other support structures for street lighting
	<p>1. Activity status: Permitted</p> <p>Where:</p> <p style="padding-left: 40px;">a. Compliance is achieved with EI-S1 to EI-S5.</p>
	<p>2. Activity status: Restricted discretionary</p> <p style="padding-left: 40px;">b. Where compliance is not achieved with EI-S1 to EI-S5</p> <p>Matters of discretion:</p> <p style="padding-left: 40px;">1. The matters of discretion of any standard that is not met.</p>

EI-R4	Telecommunication and radiocommunication aerials, antennas, aerial and antenna mountings, dish antennas, <i>lines</i> , cables, and associated <i>utility support structures</i>
	<p>1. Activity status: Permitted</p> <p>Where:</p> <p style="padding-left: 40px;">a. Compliance is achieved with EI-S1 to EI-S5.</p>
	<p>2. Activity status: Restricted discretionary</p> <p style="padding-left: 40px;">b. Where compliance is not achieved with EI-S1 to EI-S5</p> <p>Matters of discretion:</p> <p style="padding-left: 40px;">1. The matters of discretion of any standard that is not met.</p>

EI-R5	Meteorological activities, automatic weather stations, and weather recording and communicating devices
	<p>1. Activity status: Permitted</p> <p>Where:</p> <p style="padding-left: 40px;">a. Compliance is achieved with EI-S1 to EI-S5.</p>

	<p>2. Activity status: Restricted discretionary</p> <p>a. Where compliance is not achieved with EI-S1 to EI-S5</p> <p>Matters of discretion:</p> <p>1. The matters of discretion of any standard that is not met.</p>
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EI-R6	Underground and above-ground pipe networks for conveyance or drainage of water or effluent, and ancillary underground equipment
	<p>1. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance is achieved with EI-S1 to EI-S5.</p>
	<p>2. Activity status: Restricted discretionary</p> <p>a. Where compliance is not achieved with EI-S1 to EI-S5</p> <p>Matters of discretion:</p> <p>1. The matters of discretion of any standard that is not met.</p>

EI-R7	Reservoirs, wells, and supply intakes for reticulation or provision of public water supply
	<p>1. Activity status: Permitted</p> <p>Where:</p> <p>a. Compliance is achieved with EI-S1 to EI-S5.</p>
	<p>2. Activity status: Restricted discretionary</p> <p>a. Where compliance is not achieved with EI-S1 to EI-S5</p> <p>Matters of discretion:</p> <p>1. The matters of discretion of any standard that is not met.</p>

EI-R8	Irrigation and stock water systems, open drains, and channels
	<p>1. Activity status: Permitted</p> <p>Where:</p>

		b. Compliance is achieved with EI-S1 to EI-S5
		2. Activity status: Restricted discretionary a. Where compliance is not achieved with EI-S1 to EI-S5 Matters of discretion: 1. The matters of discretion of any standard that is not met.

EI-R9	Telephone call boxes	
		1. Activity status: Permitted Where: a. Compliance is achieved with EI-S1 to EI-S5
		2. Activity status: Restricted discretionary a. Where compliance is not achieved with EI-S1 to EI-S5 Matters of discretion: 1. The matters of discretion of any standard that is not met.

EI-R10	Air and marine navigational aids and beacons	
		1. Activity status: Permitted Where: a. Compliance is achieved with EI-S1 to EI-S5
		2. Activity status: Restricted discretionary a. Where compliance is not achieved with EI-S1 to EI-S5 Matters of discretion: 1. The matters of discretion of any standard that is not met.

EI-R11	<i>Utility buildings and support structures</i>	
		1. Activity status: Permitted Where: a. Compliance is achieved with EI-S1 to EI-S5

	<p>2. Activity status: Restricted discretionary</p> <p style="padding-left: 20px;">a. Where compliance is not achieved with EI-S1 to EI-S5</p> <p>Matters of discretion:</p> <p style="padding-left: 20px;">1. The matters of discretion of any standard that is not met.</p>
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EI-R12	Maintenance, replacement, and upgrading of utilities
	<p>1. Activity status: Permitted</p> <p>Where:</p> <p style="padding-left: 20px;">a. Compliance is achieved with EI-S1 to EI-S5</p> <p style="padding-left: 20px;">b. The maintenance, replacement, or upgrade is for:</p> <ul style="list-style-type: none"> i. Existing transformers and <i>lines</i> for conveying electricity at all voltages and capacities and existing telecommunication <i>lines</i> ii. Existing telecommunication and radiocommunication facilities iii. Existing buildings used for <i>utility</i> activities iv. Existing meteorological activities v. Existing coastal and river protection works. <p>Note: where the term “maintenance replacement and upgrading” means any work or activity necessary to continue the operation and/or functioning of an existing <i>utility</i>. Maintenance, replacement and upgrading shall be exempt from standards EI-S1 to EI-S5 and shall also provide for:</p> <ul style="list-style-type: none"> a. the replacement of an existing <i>line</i>, telecommunication <i>line</i>, antenna, building, <i>utility support structure</i> or other facility with another of the same or similar <i>height</i>, size or scale, within the same or similar position and for the same or similar purpose; b. the addition of extra <i>lines</i> or an extra circuit (a set of three conductors / <i>lines</i>) to existing or replacement <i>utility support structures</i>; c. the replacement of existing conductors (including with higher capacity conductors); d. an additional <i>line</i> adding earth wires and/or lightning rods to limit the effects of lightning; e. replacement of existing insulators with longer insulators.

	<p>2. Activity status: Restricted discretionary</p> <p style="padding-left: 20px;">a. Where compliance is not achieved with EI-S1 to EI-S5</p> <p>Matters of discretion:</p> <p style="padding-left: 20px;">1. The matters of discretion of any standard that is not met.</p>
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EI-R13	Weather radar
	<p>1. Activity status: Restricted discretionary.</p> <p>Matters of discretion:</p> <ol style="list-style-type: none"> 1. Any effect of <i>utility structures</i> and buildings on the landscape; 2. Any effect of associated <i>earthworks</i>; 3. Any effect of <i>utility structures</i> and buildings on the natural character of the coast; 4. Any matters or sites of significance to Te Runanga o Ngai Tahu 5. Any effects on ecological and conservation values.

EI-R14	Coastal and river protection works
	<p>1. Activity status: Restricted discretionary.</p> <p>Matters of discretion:</p> <ol style="list-style-type: none"> 1. Any effect of <i>utility structures</i> and buildings on the landscape; 2. Any effect of associated <i>earthworks</i>; 3. Any effect of <i>utility structures</i> and buildings on the natural character of the coast; 4. Any matters or sites of significance to Te Runanga o Ngai Tahu 5. Any effects on ecological and conservation values.

EI-R15	Petroleum oil or gas wells and associated buildings or structures for petroleum exploration survey
	<p>1. Activity status: Restricted discretionary.</p> <p>Matters of discretion:</p>

	<ol style="list-style-type: none"> 1. Set back from internal boundaries and screening from neighbours; 2. Site rehabilitation, including recontouring of land and/or vegetation; 3. Access and parking; 4. Noise, dust, glare, odour and vibration. 5. Any matters or sites of significance to Te Runanga o Ngai Tahu 6. Any effects on ecological and conservation values.
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EI-R16	Any other <i>utility</i> activity not otherwise listed as a Permitted or a Restricted Discretionary activity
	1. Activity status: Discretionary.

Standards

EI-S1	Zone Standards	
	Compliance is achieved with the table under EI Table 1: Zone Performance Standards.	<p>Matters of discretion:</p> <p>The effects of not meeting the standard.</p> <p>Refer to Appendix 6: Assessment Matters for guidance on what matters may be relevant to consider for the proposed activity.</p>
EI-S2	Hazard to aircraft	
	<p>The following <i>lines</i> shall be marked or otherwise highlighted in accordance with Civil Aviation Authority Rules Part 77 “Objects and Activities Affecting Navigable Airspace”, and any subsequent amendment or replacement to those rules:</p> <ol style="list-style-type: none"> a. <i>lines</i> which span valleys, riverbeds or the surface of water and which have a span greater than 50m and where any part of the span has a <i>height</i> 	<p>Matters of discretion:</p> <p>The effects of not meeting the standard.</p> <p>Refer to Appendix 6: Assessment Matters for guidance on what matters may be relevant to consider for the proposed activity.</p>

<p>greater than 30m above the ground or water directly beneath that part of the span.</p>	
<p>EI-S3</p>	<p>Outdoor storage</p>
<p>All outdoor storage ancillary to a <i>utility</i> activity shall be screened from public view by a solid wall, close bordered fence, close planted landscaping or any combination of these, with a minimum <i>height</i> of 1.8m.</p>	<p>Matters of discretion:</p> <p>The effects of not meeting the standard.</p> <p>Refer to Appendix 6: Assessment Matters for guidance on what matters may be relevant to consider for the proposed activity.</p>
<p>EI-S4</p>	<p>Utility buildings</p>
<p><i>Utility buildings</i> shall not exceed 15 m² in <i>gross floor area</i> and/or 4.0 m in <i>height</i>. Council’s discretion in respect of activities not complying with this rule is limited to the following matters</p> <ul style="list-style-type: none"> a. design and appearance of buildings; b. setback of any buildings. from road boundaries or internal boundaries; c. landscaping of the site; d. any buildings, materials necessary for noise insulation; e. the provision of access to the <i>utility</i>; f. any matters or sites of significance to Te Runanga o Ngai Tahu; g. any ecological values; h. any heritage or archaeological values. <p>Note: For the purpose of this rule, a building does not include overhead <i>lines</i> and their support structures, water tanks or reservoirs.</p>	<p>Matters of discretion:</p> <p>The effects of not meeting the standard.</p> <p>Refer to Appendix 6: Assessment Matters for guidance on what matters may be relevant to consider for the proposed activity.</p>
<p>EI-S5</p>	<p>Exposure to radio frequency emissions</p>

<p><i>Radiocommunication and telecommunication facilities</i> shall comply with the non-occupational standards specified in NZS 2772.1:1999 Radiofrequency Fields Part 1: Maximum Exposure Levels – 3kHz to 200GHz; and NZS 6609:1990 Part 2: Radiofrequency Radiation – Principles and Methods of Measurement 100kHz – 300GHz; and any subsequent replacement or amendment to that standard.</p>	<p>Matters of discretion:</p> <p>The effects of not meeting the standard.</p> <p>Refer to Appendix 6: Assessment Matters for guidance on what matters may be relevant to consider for the proposed activity.</p>
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Methods Other Than Rules

EI-M1	Erection, operation, maintenance, and upgrading of utilities
<p>Through the provision of rules in the District Plan to:</p> <ol style="list-style-type: none"> a. permit the erection of <i>utility structures</i>, their operation, maintenance and upgrading subject to compliance with performance standards to ensure that adverse effects are avoided, remedied or mitigated; b. require utilities which have adverse effects to obtain resource consents in order for potential effects to be considered by the Council. 	
EI-M2	Effects of infrastructure on natural values
<p>Through the Council’s annual planning process:</p> <ol style="list-style-type: none"> a. encourage the establishment of an operations plan for the Council that takes into account the effect of roading construction and maintenance on indigenous plants and habitats of indigenous fauna, the natural character of the coast and waterbodies, outstanding natural features and water quality. b. to encourage <i>utility operators</i> and organisations responsible for roading and rail to develop guidelines to avoid adverse effects of construction and maintenance on indigenous plants and habitats of indigenous fauna, the natural character of the coast and waterbodies, outstanding natural features and water quality. 	
EI-M3	Manage financial and environmental costs of utilities
<p>Through the provisions of rules in the District Plan:</p>	

<ul style="list-style-type: none"> a. To place the responsibility for meeting costs of development with the developer. b. To enable further development adjacent to and within existing Commercial, General Residential and Settlement Zones and Kaikōura Peninsula Tourism Development Area where excess service capacity exists. c. To address the issues of <i>reverse sensitivity</i> and access to high voltage transmission <i>lines</i>. 	
EI-M4	Resourcing Council utilities
<p>Through the Council's annual planning process, allocate funds and resources towards Council administered utilities.</p>	
EI-M5	Use of <i>designations</i>
<p>Through the inclusion of <i>designations</i> within the District Plan, to recognise particular utilities and to allow them to operate, subject to defined performance standards.</p>	
EI-M6	Other standards for utilities
<ul style="list-style-type: none"> a. To enable the maintenance and replacement of specified utilities. b. To limit minimum allotment size in areas where community or public sewage disposal and treatment is not reticulated. c. To require all allotments created to connect to a reticulated water supply where one exists. 	
EI-M7	Location of utilities
<p>For the Council to consider location requirements and economic costs of alternative locations when assessing resource consent applications for utilities.</p>	

Principal Reasons

EI-PR1	Managing environmental effects of utilities and infrastructure
<p>Utilities have the potential to adversely affect the environment during construction or installation, throughout their operation and during maintenance and upgrading works. The impact of utilities is likely to be greater in areas used for residential, conservation or recreation purposes, or in areas of significant landscape or natural values. It is important</p>	

that the effects of utilities be avoided, remedied or mitigated from areas with high amenity values, such as residential areas.

The provision of utilities can involve the erection of *earthworks* and structures such as buildings, poles, overhead wires, pylons or pipes which may adversely affect areas identified as possessing outstanding natural features or landscapes, significant indigenous vegetation or significant habitats of indigenous fauna or the amenity of the surrounding area. The visual impact of any structures will be related to their size, the frequency with which they occur within the locality and their scale in relation to the surrounding environment. Other utilities such as drainage channels or reticulated water supply, may have little visual impact. Overhead wires can also represent a very real hazard to low flying aircraft.

Operators of large singular networks or utilities are encouraged to undertake their own monitoring of effects as it is considered that they can perform this task with greater efficiency than the Council. While Council can place monitoring conditions on resource consents, *utility operators* who do not need resource consent can only be encouraged to undertake self-monitoring.

The policies recognise that overhead *lines* and structures can detract from visual amenity. *Lines* and structures for new developments should therefore be located underground where practicable. Existing overhead *lines* in residential, settlement, and commercial zones and Kaikōura Peninsula Tourism Development Area should be systematically replaced with underground reticulation. Where undergrounding is not practicable, infrastructure should be designed so that adverse effects are mitigated.

Proliferation of infrastructure can also detract from visual amenity. While co-siting of infrastructure is desirable, this requirement can only be encouraged because of constraints such as technical or operational requirements or land tenure.

EI-PR2

Enabling essential utilities and infrastructure

Utilities are important as they provide essential services to the community. For this reason and due to the high capital costs of establishing utilities and their long-life expectancy, it is important that the Plan provides for the establishment and on-going functioning, maintenance and upgrading of utilities, provided their adverse effects are adequately managed. Consequently, utilities will be provided for by way of *designation*, resource consents, or by listing as permitted activities where appropriate, taking into account any potential adverse effects.

Some utilities have specific location requirements that need to be accommodated to allow them to operate efficiently. Such needs could include corridors for air traffic or large quantities of land remote from settlement for sludge disposal. In some cases, the location requirements of a *utility* may be extremely restricted such as the location of cells which

receive and transmit signals from mobile phones. The District plan recognises the requirements of these activities, but also takes into account any adverse effects of these activities.

Inappropriate subdivision could occur where allotments not suitable for their intended use are created due to restrictions high voltage electricity transmission *lines* have on land and development. Consideration relating to subdivision design, location of boundaries, access to *lines* and the location of building platforms relative to the *lines* is required to ensure that adverse effects on the safety and health of people, *reverse sensitivity* issues and adequate access to the *lines* are addressed.

Although the co-location of utilities makes more efficient use of resources, the District Plan cannot include rules requiring *utility operators* to share facilities. Therefore, co-location is encouraged through the Annual Plan.

Many *utility operators* are continuously adopting more efficient technology. Rules in the District Plan will provide for the installation of new technology, especially where it enables people to enhance their social, economic or cultural well-being. New technologies will only be appropriate where there are no significant adverse effects.

Residential and business development will be encouraged in areas where there is sufficient capacity associated with existing utilities to provide for new residential and business developments. By defining zones which provide for further development, developers will be encouraged to locate within these areas as certain activities will be permitted or controlled. As a consequence, greater use will be made of existing utilities.

The initial costs of servicing development should be met by the developer to the Council's specification. Initial costs are thus not met by the wider public but passed from the developer to those who will benefit from the services provided. The maintenance and upgrading of existing utilities to meet performance standards required, should be met by those individuals who benefit from the utilities.

The reticulation of water supply in accordance with New Zealand Drinking Water Standards for domestic purposes lessens the likelihood of contamination of water supplies and increases the reliability of supply. Reticulated systems are preferred as water quality can be more easily controlled. Sewage reticulation will be given priority in areas where surface and groundwater quality, values of Te Runanga o Ngai Tahu or public health and safety may be affected.

Existing land drainage systems within urban areas are a valuable resource as they carry water away from land and therefore enable it to be better utilised. Consequently, it is beneficial to maintain existing land drainage systems within these areas.

Anticipated Environmental Results

EI-A1	Maintenance of amenity values
Maintenance of the amenity values of the District, particularly in residential, Ocean Ridge, commercial, settlement, Kaikōura Peninsula Tourism, and open space areas.	
EI-A2	Appropriate utilities are available
Utilities consistent with the amenity of the environment, operational needs, and the cost and scale of facilities.	
EI-A3	Natural values are protected
The protection of outstanding natural features and landscapes, significant indigenous vegetation and significant habitats of indigenous fauna.	
EI-A4	Utilities are co-located
The co-location of telecommunications and radio-communications facilities where appropriate.	
EI-A5	New development is serviced
New development in areas where utilities can be supplied on a sustainable basis.	
EI-A6	Public health, safety, and welfare outcomes are maintained or improved
Maintenance and enhancement of public health, safety and welfare.	
EI-A7	Improved technologies are used for <i>utility</i> services
Continued opportunity for the establishment of improved technologies with respect to <i>utilities</i> .	
EI-A8	Development of serviceable areas
Development of areas more able to be serviced with consequent economies in use and provision.	

EI-A9	Reticulated services are provided to protect water quality and values
<p>Further sewer and water reticulation in areas where this is necessary to prevent degradation of groundwater resources, protect the values of Te Runanga o Ngai Tahu and to maintain and enhance public health.</p>	

El Table 1: Zone Performance Standards

Standard	Set	GRZ and Ocean Ridge DA	COMZ and MFZ	GRUZ (Non - Landscape areas)	GRUZ (Landscape areas)	Kaikōura PTDA
i. Undergrounding - <i>lines</i> for conveying electricity or telecommunication signals shall be located underground except where new <i>lines</i> extend existing overhead <i>lines</i> and involve no more than 3 additional poles	Applies	Applies	Applies	n/a see Note 1	n/a see Note 1	Applies
ii. Transformers - transformers shall be located at <i>ground level</i>	Applies	Applies	Applies	n/a	n/a	Applies
iii. <i>Heights - lines</i> , and their associated <i>utility support structures</i> , shall not exceed the following maximum <i>heights</i> above <i>ground level</i>	15m	15m	15m	25m	25m	15m see Note 2
iv. <i>Heights - utility support structures</i> for aerials,	15m	15m	20m	25m	12m	12m see

Standard	Set	GRZ and Ocean Ridge DA	COMZ and MFZ	GRUZ (Non - Landscape areas)	GRUZ (Landscape areas)	Kaikōura PTDA
antennas and dish antennas shall not exceed the following maximum <i>heights</i> above <i>ground level</i>						Note 2
v. <i>Heights</i> – aerials and antennas, excluding dish antenna, may exceed the <i>height</i> of their support structure or buildings they are attached to by the following margins	3m	3m	3m	3m	3m	n/a
vi. Dish antennas - dish antennas shall not exceed the following maximum diameter	1.2m	1.2m	1.2m	3m	3m	1.2m see Note 2

1. “n/a” (not applicable) means the performance standard does not apply in the specified zone.

2. The above performance standards in the above table for Kaikōura Peninsula Tourism Development Area and NFL-R1 and R8 shall only apply to utilities located outside the Building Platform Location Areas shown on the Outline Development in DEV1 Appendix 1 of the Plan. Utilities located within the Building Platform Location Areas of the Kaikōura Peninsula Tourism Development Area are subject to the *height* limitations for the buildings

they are attached to as set out in the performance standards in DEV1 of the Plan and/or a maximum diameter of 3m for a dish antenna.