

**SUBMISSION ON VARIATION 1 TO THE PUBLICLY NOTIFIED  
PROPOSED CANTERBURY NATURAL RESOURCES REGIONAL PLAN  
UNDER CLAUSE 6 OF THE FIRST SCHEDULE  
OF THE RESOURCE MANAGEMENT ACT 1991**

**TO:** Canterbury Regional Council  
P O Box 345  
CHRISTCHURCH

**NAME:** Orion New Zealand Ltd

**ADDRESS:** 218 Manchester Street  
Christchurch

*(Please note the different address for service on page 8)*

**A. SUBMISSION BY ORION NEW ZEALAND LTD**

Pursuant to Clause 6 of the First Schedule of the Resource Management Act, Orion New Zealand Ltd (“Orion”) hereby lodges a submission on the proposed Canterbury Natural Resources Regional Plan (“the Plan”).

**PART I OF THE SUBMISSION NOTICE**

**Format and Content of Submission**

This submission provides an extensive background about Orion. This background covers:

- details of Orion as a company,
- the capacity of their network, and
- the type of infrastructure including processes and activities required to ensure their network utility infrastructure functions effectively and efficiently in providing the essential service of electricity to customers.

This background is important as it provides a context in which the Council can assess and understand Orion’s submission on the rules and provisions contained within the Plan.

The information in Part I of this notice of submission is to ensure that this is a transparent process by which the Council is clear as to what it is that Orion is requesting in its submissions and the reasons for such relief. This will also help to avoid any unnecessary further RMA processes beyond the initial Council level determinations on these submissions.

## About Orion

Orion is a network management company. It was established in December 1998 following the separation of the network and energy retailing functions of Southpower Limited. As a result of government legislation passed in 1998, the Southpower name and retailing business were sold and the network business was renamed Orion New Zealand Ltd. Orion is governed and controlled by the provisions in the Electricity Act 1992.

The core business of Orion is the management of the Canterbury-based electricity network, servicing the greater Christchurch urban area, and large surrounding rural area. The network covers an area of 8,000 square kilometres in Central Canterbury between the Waimakariri River to the north and the Rakaia River to the south. Orion transports electricity from nine major Transpower substations to homes and businesses within Orion's network area. In 2003 Orion's network consisted of:

- 48 large substations;
- 12,069km of lines and cables;
- 9,587 distribution substations;
- 171,500 customer connections.

## Infrastructure Overview

The electricity network works provided by Orion which have the potential to impact on land and vegetation resources includes the excavation of land/earthworks and vegetation clearance associated with the erection, placement, upgrade, repair and maintenance of its infrastructure both on land and within the beds and margins of lakes and rivers. Orion is responsible for the construction and maintenance of an efficient and safe electricity network which involves the following infrastructure:

- Underground cables;
- Overhead lines;
- Substations/Transformers/Kiosks;
- Electricity structures (poles/pylons, earth rods and associated buildings); and
- Access tracks.

Orion's key area of concern is the effect of the rules in the proposed plan on the activities or processes that are required to establish the above infrastructure. There are certain land use activities associated with establishing new infrastructure and maintaining existing infrastructure which involve:

- The excavation of land,
- The disturbance/deposition of soil,
- Vegetation clearance and
- Potential discharges to water.

Currently Orion undertakes these activities in accordance with strict Industry Codes of Practice, local authority requirements, and Electricity Network Technical Specification standards. For example, Orion has Technical Specifications that provide clear standards/guidelines for the following activities:

- Excavation (including boring and thrusting), backfilling and restoration (including follow up maintenance) of surfaces;

- Overhead line work (including pole and conductor installation and other associated additions, alterations, repairs and maintenance, vegetation clearance);
- Substation Installation (including foundations, enclosures, earthing);
- Cabling – Installation and Maintenance;
- Earthing Installation (i.e. earth electrodes and rods).

These activities and processes are described in more detail in the following subsections

## **Underground Cables**

In 2003 Orion rolled out 120 kilometres of underground cable. Typically underground cables will be located in urban areas and are located in road reserves in accordance with local authority Codes of Practice. Underground cabling can also occur when overhead lines are required to be converted underground, construction involves typical trench runs of between 500m–1000mm at a time. Cables are constructed with either an aluminium or copper conductor with a PVC coating in sizes from 10mm-100mm diameter. Underground cables are principally installed using open trenching with some shorter lengths and road crossings installed by thrusting or boring where ground conditions permit.

### *Trenching*

In the majority of urban areas, trenching is used to lay lines in the ground. This allows existing services such as phone, stormwater, sewer etc, to be physically located and damage avoided. If other services are to be buried at the same time (e.g. when servicing a new subdivision), then a common trench is likely to be used.

Trenches are excavated to a depth that will provide any cable(s) with a minimum of 600mm cover to the finished ground level. Typically cables will be laid at a 700mm depth in a trench that is between 450mm-600mm wide. In some cases additional depth may be required to avoid obstructions or when loose rock etc requires a bedding material or when the cables are overlaid. At certain intervals joint bays may be required to join lengths of cables. Trenches are backfilled in accordance with the relevant local authority requirements, and as a general rule this occurs as soon as possible after the trench is dug, with excess material being removed from the site and the surface returned to its original condition. Local authority and roading authority specifications are very strict and precise on the methods of trenching and the requirements for ground/surface re-instatement/rehabilitation.

It is established policy of Orion to maintain all channels, water courses and water tables free from debris and provide for a free flow of water. Likewise, all surrounding land is to be kept clean, tidy and free of unnecessary material, plant and equipment at all times. The draining or pumping of water out of any trenches (de-watering) and its disposal is undertaken in accordance with local authority guidelines. Any pipes broken on the line of the excavating operations are repaired. Orion has adopted the Code of Practice for Working in the Road – SNZ HB 2002:2003 as a minimum standard for all works within their network area. In addition to this requirement, there will be any specific requirements of Transit NZ or the relevant local authority as well as in the Electricity Act 1992. Orion are also responsible for regular inspections and maintenance of all excavations made during work.

### *Boring and Thrusting*

In certain circumstances it is necessary to thrust or bore under certain surfaces or through small waterways. This involves drawing the cable and pipe through an opening hole. The same general site reinstatement works apply to boring and thrusting that are outlined above for trenching.

### *Summary*

As the two above descriptions illustrate the potential for adverse land disturbance effects to arise from the laying of electricity cables underground is limited. In summary, the key reasons for this relate to Orion's established policy and protocols and those of local authorities and road controlling authorities which collectively means that the following characteristics of underground cable laying will apply without the need for a further level of procedure in the NRRP:

- the narrow width and relatively shallow depth of the excavation work;
- the location within legal road reserve wherever possible;
- the reinstatement procedures undertaken; and
- the maintenance of back-filled excavations.

The costs of laying underground cables are generally 5-10 times higher than overhead lines. Notwithstanding this cost differential, Orion design their network for underground construction as necessary to meet the requirements of the various territorial local authorities. In order to maintain this approach as cost effectively as possible, Orion are reliant on the support of territorial local authorities not to place undue statutory impediments in the way of network construction. If the rules of an RMA instrument such as the NRRP do not reflect this then it will often lead to higher expenditure.

Notwithstanding the above policy, the key determinant as to the method of cable/line establishment will be territorial local authorities requirements and the ground conditions and nature of the topography in the area to be serviced. In urban riparian areas and over urban aquifers, undergrounding should, as a general rule, be standard practice and Orion would expect the NRRP to encourage that. Conversely, in the rugged or remote rural areas, electricity lines are more likely to be overhead.

Given that overhead lines will for various reasons be unavoidable in certain circumstances it is important that the Council understands the process of establishing such structures. This is covered immediately below.

### **Overhead Lines**

Overhead lines generally involve the previously outlined activities and processes in the following situations:

- new overhead lines in rural areas; and
- maintenance of existing overhead lines in urban areas.

The key structures associated with overhead lines are the placement of poles and pylons. Poles are usually 10m to 17m in length and inserted between 3.5m to 4m into the ground. A boring machine or backhoe would normally be used to excavate pole holes. The diameter of pole holes is usually between 600mm to 1500mm depending on the size of the pole and the capacity of the network it is supporting. Pole holes are excavated and back-filled in such a manner that the amount of disturbed earth surrounding the pole after erection is as small as possible. The backfill materials are in accordance with local authority requirements and Standards developed by Orion following comprehensive soil analysis and engineering design.

Pylons are used more sparingly and are really only for heavier construction requiring greater mechanical integrity. The excavation of land for foundations varies depending on the soil type at each location.

Also associated with overhead lines is the maintenance and repair of existing poles and pylons. Pole replacement and line maintenance work in rural areas is carried out in accordance with Orion's specifications. This involves minor excavation works around the base of a pole/pylon at no more than 2-3 metres in depth.

The potential for adverse land disturbance effects to arise from the erection and placement of new overhead lines and support structures (as well as the repair and maintenance) is limited, due to a number of factors including:

- the narrow diameter and relatively shallow depth of the excavation work;
- the intermittent nature of pole locations relative to laying underground cables; and
- the reinstatement procedures undertaken.

Given the above, it is important that regional plans should reflect the establishment of Orion's infrastructure by providing for land disturbance and vegetation clearance for the maintenance and upgrading of existing lines as a permitted activity. There are benefits to the environment and community of providing overhead lines where it is not possible to locate underground cables.

### **Electricity network substations/kiosks and transformers**

The installation of structures and buildings associated with lines and cable is another essential part of Orion's infrastructure. Large to small substations, ground kiosks and transformers are used by Orion for receiving high voltage electricity and then converting that electricity to lower voltages to pass on to the customer. In 2003 there were a total of approximately 10,000 substations located both in rural and urban areas. The size of a substation is dependent on the amount of electricity it is required to convert. There are also other smaller structures placed on land such as ground mounted transformers and earth rods. The majority of these structures require land to be excavated for foundations while the earth rods are driven into the ground in order to earth equipment in these structures. As with overhead and underground lines/cables, there is a requirement for Orion to reinstate the areas around these structures to a standard required by either local authorities or Industry Standards developed in accordance with the Electricity Act 1992.

From time to time Orion will be required to establish new, or upgrade, repair or maintain a variety of other new and existing electricity network structures. These include those outlined above. While some earthworks and vegetation clearance may be necessary for the foundations of these structures, including substations, the amount of such is relatively minor. It is Orion's policy and obligation under the Electricity Act 1992 and local authority guidelines to reinstate, where possible, land and vegetation disturbed during construction of such facilities. For this reason, and as with the laying of underground cables and overhead lines, the potential for adverse effects associated with electricity network structures is minimal.

Accordingly, for cables/lines and structures, Orion does not accept the need for many of the controls proposed in the Plan.

### **Effect of NRRP on Orion Infrastructure**

It is valid that Resource Management plans have rules that may restrict the use or disturbance of land and vegetation in certain circumstances where a resource's sustainability could potentially be adversely affected. In this instance, the resources under consideration are the quality of Canterbury's fresh water and ground water supplies and the riparian areas of the region's lakes and rivers.

Orion's infrastructure will invariably be located in positions directly involving these resources. Orion's lines (whether underground or overhead) will invariably be located within proximity to waterways, lakes and rivers and will often include bridge and river crossings. The same infrastructure will often need to be laid over aquifers. From time to time other infrastructure such as kiosks and substations will need to be located in a riparian margin.

Orion accepts that locating and maintaining the above structures within riparian zones, and beds and margins of lakes and river, and across rivers and streams, and over aquifers may, in extreme circumstances, result in land disturbance and vegetation clearance that could potentially lead to a variety of adverse effects on the water resources covered by the NRRP. However, Orion would generally oppose these types of restrictions for their infrastructure due to the conditions that they are already currently undertaking with reinstatement of disturbed ground. The installation of underground lines/overhead cables and poles, as well as structures, is unlikely to have more than a minor impact on the resources being considered.

It is the fundamental themes of the Orion submission that the proposed Canterbury Natural Resources Regional Plan will impose a complex regime of additional restrictions upon Orion for undertaking certain activities in certain locations. Orion believe these additional restrictions as they are proposed will be inappropriate to the infrastructure which makes up their electricity network.

In terms of its functions and in light of the importance of ensuring sustainable management of the above infrastructure as an important physical resource and within the District, Orion makes the following submissions to the Plan as detailed in Part II of the submission (Annexure A). The submission relates primarily to the rules in Chapters 4 and 6 of the Plan as well as the objectives and policies contained in these chapters.

## **B. SPECIFIC PLAN CHANGE PROVISIONS SUBMITTED TO**

The specific provisions of the Plan that the Orion submission relates to are as follows:

### **Definition of terms for Chapters 4-8 only**

- Chapter 4 – page 297-313
- Chapter 5 – page 270-285
- Chapter 6 – page 64-79
- Chapter 7 – page 78-93
- Chapter 8 – page 76-91

### **Chapter 4: Water Quality**

- Section 4.6: Regional Rules (pages 86 - 181):
  - Rule WQL32 Vegetation clearance within a riparian zone – permitted activity
  - Rule WQL33 Disturbance or deposition of soil within a riparian zone – permitted activity
  - Rule WQL40 Excavation of land in a Coastal Confined Gravel Aquifer System, or over an unconfined or semi-confined aquifer – restricted discretionary activity
  - Rule WQL54 Excavation of land or discharge to groundwater from land registered on the Listed Land Use Register – discretionary activity
  - Rule WQL34 Vegetation clearance or soil disturbance activities in a riparian zone that do not comply with Regional Rules WQL32 or 33 – restricted discretionary activity

- Rule WQL62 Use of land for certain activities – non-complying activity

## Chapter 6: Beds and margins of lakes and rivers

- Section 6.6: Regional Rules (pages 21-35):
  - Rule BLR1 Use, maintenance, reconstruction, alteration, extension, demolition or removal of existing structures – permitted activity
  - Rule BLR2 Erection or placement of structures – permitted activity
  - Rule BLR3 Excavating, drilling, tunnelling or disturbance within the bed – permitted activity
  - Rule BLR5 Disturbance of vegetation and harvesting practices – permitted activity
  - Rule BLR7 Land use activities within 7.5 metres of the bed or a flood protection structure – permitted activity
  - Rule BLR8 Structures, excavating, disturbance, planting, depositing, reclamation or drainage – discretionary activity

## C. NATURE OF SUBMISSIONS

The Orion submission is that:

- It **opposes** the absence of definitions in Chapters 4-8 that define '*network utilities*', '*electricity lines/cables*' and '*electricity network facilities*'.
- It **opposes** the inclusion by default of activities associated with Orion's range of infrastructure in Rules WQL32, WQL33, WQL40 and WQL54 (including WQL34 and 62) of Chapter 4 to the Plan.
- It **opposes** the vagueness, restrictiveness and uncertainty of the permitted activity conditions for Rules WQL32, WQL33, WQL40 and WQL54 of Chapter 4 to the Plan.
- It **opposes** the inclusion by default of activities associated with Orion's range of infrastructure in Rules BLR1, BLR2, BLR3, BLR5 and BLR7 (including BLR8) of Chapter 6 to the Plan.
- It **opposes** the vagueness, restrictiveness and uncertainty of the permitted activity conditions for Rules BLR1, BLR2, BLR3, BLR5 and BLR7 of Chapter 6 to the Plan.
- It **opposes** the lack of exemptions from permitted activity rules for '*network utilities*', '*electricity lines/cables*' and '*electricity network facilities*'.

## D. DETAILS OF SUBMISSION

Further and full details of Orion's submissions in respect to each of the above described provisions of the proposed Plan, and details of the decisions which Orion seeks from the Canterbury Regional Council, are set out in Part II of the Submission Notice which is labelled Annexure A (which forms part of this submission).

## E. HEARING

Orion wishes to be heard in support of its submission. If others make similar submissions, Orion may be prepared to consider presenting a joint case with them at any hearing.

SIGNED for and on behalf of  
Orion New Zealand Ltd

.....  
DJ McMahon  
Authorised agent for and on  
behalf of Orion NZ Ltd

Dated: 17 December 2004

**Address for service of  
person making the submission:**

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## ANNEXURE A

### PART II OF THE SUBMISSION NOTICE

#### **FURTHER DETAILS OF THE SUBMISSION BY ORION NEW ZEALAND LTD ON THE VARIATION 1 TO THE PROPOSED CANTERBURY NATURAL RESOURCES REGIONAL PLAN AND OF THE DECISIONS SOUGHT FROM THE CANTERBURY REGIONAL COUNCIL**

Note: Annexure A forms part of the Orion submission on the Proposed Plan.

## **SUBMISSION 1:**

### **CHAPTERS 4, 5, 6, 7 and 8:**

#### **DEFINITIONS:**

### **DISTRICT PLAN PROVISIONS**

The general provisions in Chapters 4, 5, 6, 7 and 8 to which this Orion submission relates is the list of Definitions.

### **INTRODUCTORY NOTE**

The Submissions to the definitions in Chapters 4-8 that follow are made in relation to clarifying the terminology in the rules affecting processes associated with the upgrade and rollout of new and existing utility infrastructure undertaken by network utility operators such as Orion in all areas of the Canterbury Regional Council region. The importance of these definitions has been outlined in the background section of this submission. This background material is to be read in conjunction with this submission.

These submissions are also interrelated with the submissions on Chapters 4 and 6 and the relief sought in the other submissions is dependent on alteration to definitions sought in this submission.

### **SUBMISSIONS**

#### **Submission 1a – Definitions of Terms in Chapters 4-8 only, *Use of terms not appropriate or defined.***

Orion **opposes** Chapter 4, Rule WQL32, Condition 1(a)(i), where the plan refers to '*public network utilities*', however, does not provide a definition of this term in the plan. This does not provide clarity or certainty to Orion that their electricity network utility activities and processes are recognised in the plan. The Orion submission seeks an alteration of the term (to '*network utilities*') and a definition of that new term. It is appropriate to include this term and definitions, not only for Orion, but because it covers the wide variety of network utility operators.

The issues and problems associated with the current term "*public network utilities*" are discussed in greater detail in the individual submissions to Chapters 4 and 6 that follow. In particular, Submission 2a has a commentary that specifically outlines the problems with the term in relation to Rule WQL32. A solution to the issue is also addressed. In this respect, Submission 2a should be considered as part of and in support of Submission 1a.

#### **Submission 1b – Definitions of Terms in Chapters 4-8 only, *New terms and definitions to be included in plan.***

Orion **opposes** the lack of definitions applicable to '*network utilities*', '*electricity line/cable*', and '*electricity network facility*'.

Network utilities provide an essential service to the community. As Part I of this submission establishes, the importance of such utilities in the electricity network field around Canterbury is paramount. The Council's own operative Regional Policy Statement also recognises this. Therefore, it is essential that these terms are defined in the plan as they relate to network utilities and the electricity industry. Definitions are also essential to make the existing and any new rules

(requested to be introduced as part of the Orion submissions) work in an efficient and clear manner.

In this respect the following new terms need to be defined:

- Network utility
- Electricity line/cable
- Electricity network facility

As mentioned in the background information of Part I of this submission, definitions for network utilities, electricity lines/cables and electricity facilities would not only assist Orion, but other utility operators would also benefit from the clarification of utility terms. As an aside, there are a range of definitions in the Canterbury Regional Councils Land and Vegetation Plan and Coastal Plan for utility network systems and facilities that resulted from submissions to those plans by various utility operators in the early and mid 1990s. These have been used for guidance in suggesting appropriate definitions to be included in the Natural Resources Regional Plan. This provides a valuable and consistent regulatory framework for the NRRP.

## **RELIEF SOUGHT**

Orion seeks the following relief:

### **Submission 1a**

**Remove** the term “*public network utilities*” in Rule WQL32, Condition 1(a)(i) and **replace** it with the term “*network utilities*”.

### **Submission 1b**

**Insert** the following definitions in the plan by inserting the underlined words into the appropriate alphabetical order in the definitions section of Chapters 4, 5, 6, 7 and 8 of the plan as follows:

“Network Utilities means a structure that is part of an operation undertaken or proposed to be undertaken by a network utility operator and includes structures associated with electricity supply (including electricity lines/cables and electricity network facilities), flood protection, water supply, sewage disposal, drainage, telecommunications (including telecommunication lines and radio-communication facilities), and access and means of transportation on land (including bridges, roads and tracks).”

“Electricity Line/Cable means a wire or wires or a conductor of any other kind used or intended to be used for the control, transformation, conveyance, or distribution of electricity, and includes any pole, pylon, insulator, pole mounted transformer, casing, minor fixture, tunnel or other equipment or material used, or intended to be used, for supporting, enclosing, surrounding or protecting any such wire or conductor, and also includes any part of a line or cable.”

“Electricity Network Facility means any structure or equipment for the conversion and/or transformation of electricity, including substations, kiosks, equipment sheds, ground mounted transformers, and associated equipment or apparatus, as well as support structures such as guyes, support wires, and ancillary buildings”.

*There may, however, be other methods of achieving the desired relief.*

## **SUBMISSION 2:**

### **CHAPTER 4: WATER QUALITY**

#### **SECTION 4.6: REGIONAL RULES**

#### **DISTRICT PLAN PROVISIONS**

The specific provisions in Chapter 4, Section 4.6 of the Plan to which Orion's submission relates are:

- Rule WQL32 Vegetation clearance within a riparian zone – permitted activity
- Rule WQL33 Disturbance or deposition of soil within a riparian zone – permitted activity
- Rule WQL40 Excavation of land in a Coastal Confined Gravel Aquifer System, or over an unconfined or semi-confined aquifer – restricted discretionary activity
- Rule WQL54 Excavation of land or discharge to groundwater from land registered on the Listed Land Use Register – discretionary activity
- Rule WQL34 Vegetation clearance or soil disturbance activities in a riparian zone that do not comply with Regional Rules WQL32 or 33 – restricted discretionary activity
- Rule WQL62 Use of land for certain activities – non-complying activities

#### **INTRODUCTORY NOTE**

These Submissions to Chapter 4 are made in relation to the processes associated with:

- the repair and maintenance of existing utility infrastructure, and
- establishing new utility infrastructure.

From the perspective of the Plan, these processes will inevitably involve:

- Vegetation clearance and disturbance or deposition of soil within a riparian zone; and
- Excavation of land in a Coastal Confined Gravel Aquifer System, or over an unconfined or semi-confined aquifer

These processes have been outlined in the background section of this submission. It is essential that the background material in Part I of this notice of submission is read in conjunction with the following individual submissions. This is because Part I establishes the nature of the processes and the minor nature of the associated effects. It also avoids having to repeat the description in every individual submission in this notice.

## **SUBMISSIONS**

### **Submission 2a – Rule WQL32: Vegetation clearance within a riparian zone – permitted activity - *Use of Undefined Term in Condition 1.***

Orion **opposes** Condition 1 of Rule WQL32 as it applies to vegetation clearance associated with the repair and maintenance processes undertaken by network utility operators, such as Orion, in the beds and margins of rivers or lakes associated with existing '*public network utilities*' and '*tracks*'.

Condition 1 of Rule WQL32 appears to make exemptions for vegetation clearance in riparian zones associated with the repair and maintenance of established:

- *public network utilities;*
- *public roads, tracks or railway tracks; and*
- *lawfully established private tracks.*

The Council's intention to create these exemptions is supported. However, Orion has concerns over the implementation of the rule creating the exemption for vegetation removal associated with these established '*public network utilities*'. This is due to the term '*public network utilities*' not being defined in the Plan. Without a definition there is no certainty for Orion (or other network utility operators) as to what constitutes a '*public network utility*' and therefore no certainty that their infrastructure and associated processes are exempt as intended. Furthermore, the term '*public network utility*' is considered to be redundant and confusing given that it implies that only those utilities of public bodies or organisations are exempt. Whilst this was not intentional it is a very possible outcome if the term is not altered and defined.

Having the word "*public*" in the term is likely to be traced back to the former Town and Country Planning Act where the works of public bodies such as central government and local government were often given a statutory exemption from the rules in district and regional planning instruments. Since the late 1980s, however, many public agencies delivering essential infrastructure have been corporatised and/or privatised. Some are listed on the stock exchange. Whilst this might make them "*public*" bodies in that they have public ownership, this is a moot point and one that Orion is not prepared to risk for the purpose of this rule.

In Orion's view the important aspect is that the exemption must relate to the works of "*Network Utility Operators*" who have been granted that status through legislation. That status and the follow up 'requiring authority' status through the RMA is an important guarantee that the operator has the necessary environmental management systems in place to ensure the responsible implementation of their utility rollout. In this respect it is significant that Orion is an approved requiring authority and it is important that the definition of the term incorporates network utility operator status as a precondition to giving effect of the rule.

For the above reasons, Orion submits (as it also does in Submission 1a) that a new term and a definition of that new term is essential for the implementation of this rule. Furthermore, and as mentioned in Submission 1b, definitions of the terms '*network utilities*', as well as '*electricity lines/cables*' and '*electricity network facilities*' would not only assist the Council in implementing the rules in the Plan, but other utility operators would also likely benefit from the clarification of utility terms.

**Submission 2b – Rule WQL32: Vegetation clearance within a riparian zone – permitted activity - Content and Implementation of Condition 1 and Conditions 2-7**

**Orion opposes:**

- **Condition 1** as it applies to the type of utilities it applies to (i.e. just to established utilities or also new utilities); and
- **Conditions 2-7** as they apply to vegetation clearance associated with the construction, repair and maintenance processes undertaken by Orion in the beds and margins of rivers or lakes associated with both established and new ‘public network utilities’ and ‘tracks’.

In terms of **Condition 1** Orion’s concerns are as follows:

- Condition 1 appears to limit permitted activity status to vegetation clearance associated solely with the repair and maintenance of established utilities/access tracks without any scope for permitted activity status for vegetation clearance associated with the establishment of new utilities and associated tracks. The reality is that the type of vegetation clearance associated with both repair/maintenance of established utilities and vegetation clearance establishment of new utility structures is very similar. The types of process and amounts of clearance are virtually the same in that they will use the same techniques of trenching, thrusting/boring, and backhoeing outlined in Part I of this submission.
- It is actually arguable that with some techniques employed by Orion, such as thrusting, there may be no vegetation clearance per se. To provide certainty, however, and because there will be some vegetation removal associated with displaced earth for thrusting establishment, footings and foundations (albeit minor), Orion is seeking specific permitted provision in condition 1 for vegetation removal associated with the establishment of new utilities in the riparian margin. Similarly, and as discussed immediately below, Orion is seeking exemptions from conditions 2-7 relating to vegetation removal for works associated with existing and new utilities in the riparian margin.

**Conditions 2-5** of Rule WQL32 provide thresholds that vegetation clearance must meet in order to qualify as a permitted activity. These conditions place undue restrictions on Orion when rolling out new infrastructure/tracks and/or carrying out repairs and upgrades/maintenance to existing infrastructure and tracks. For example:

- Condition 2 provides that the total area of vegetation clearance must not exceed 100m<sup>2</sup> for every kilometre length of the margin of the waterway in a 6 month period. A condition like this is not robust enough when considering the linear nature of long underground electricity cable runs. In such circumstances, and as described in Part I of this notice of submission, the extent of cable laying undertaken by Orion will invariably and inevitably mean that these thresholds will be exceeded. As such the permissive nature of the rule is immediately cancelled out. Moreover, even though the volumes might be exceeded the techniques by which the cable is laid (the trenching and boring/thrusting techniques also outlined in Part I of this notice of submission) means that the disruption to the riparian environment will be minimal. This raises the issue as to why a more permissive rule regime is not being implemented. Similarly this condition, whilst providing a time frame (a 6 month period) as well as a spatial component, is unclear when it comes to the application of the condition – i.e. do the timeframes and spatial measures apply to the entire region or is it a total figure for the region or just the operator or just the project? This is far from clear. This ambiguity in the rules makes for difficult interpretation and implementation for not just the Council but also resource users such as Orion. This is open to uncertainty and is therefore potentially ultra vires.

- Conditions 3 and 4 provide an impractical and onerous measurement thresholds for vegetation, slash or plant debris that shall not be deposited into the bed of a river or lake or in a position where it may enter a river or lake.
- Condition 5 provides that with the exception of the activities listed in Condition 1, vegetation clearance in a riparian zone shall not take place on land 900m or over above sea level. There does not appear to be a clear justification, per se, in the Plan (in the Explanation and Principle Reasons for Rules) for imposing a level like this on vegetation clearance apart from reference to the high country. There may be rare occasions when Orion wish to provide electricity to the high country. It is highly unlikely that there will be significant amounts of vegetation clearance associated with this and, therefore, Orion consider this condition to be impractical and inappropriate.

With regard to Conditions 2-7 Orion is seeking an exemption for vegetation clearance associated with its network utilities, electricity lines/cables and electricity network facilities (regardless of whether they are established or new). An exemption from Conditions 2-7 of Rule WQL32 is considered appropriate given the outline of Orion processes provided in the background information of this submission (Part I), and the minimal vegetation disturbance associated with these processes. For example, the greatest potential for vegetation clearance will be associated with linear cable runs but any clearance of vegetation with that process is minimal and any disturbance is rehabilitated at the conclusion of any work. All other vegetation clearance in the riparian area will be limited to footing and foundation works for electricity network facilities (i.e. poles/pylons used to support overhead lines and associated small equipment shelters and kiosks). Invariably there will be some vegetation clearance for access tracks in the riparian zone but this will be minor.

Even though Conditions 6 and 7 are not considered particularly relevant to Orion's processes, Orion is seeking an exemption for electricity lines/cables and electricity network facilities, and access tracks from Conditions 2-7 inclusive for reasons of complete certainty.

**Submission 2c – Rule WQL33: Disturbance or deposition of soil within a riparian zone – permitted activity, *Non-exclusion or exemption for network utilities and tracks.***

Orion **opposes** Rule WQL33 as it does not provide an exemption for the disturbance or deposition of soil within a riparian zone associated with the repair and maintenance processes of existing *network utilities and tracks*, in the same manner that Rule WQL32 provides for such an exemption for vegetation clearance.

Orion believes that a similar exemption for network utilities and tracks that result in the disturbance or deposition of soil within a riparian zone should be applicable in this rule to provide consistency of plan provisions. The reasons for this are as outlined in submission 2b above except that for the term vegetation clearance the terms disturbance or deposition of soil within a riparian zone should be substituted.

**Submission 2d – Rule WQL33: Disturbance or deposition of soil within a riparian zone – permitted activity, *Content and Implementation of Conditions 1-9***

Orion **opposes** Conditions 1-9 of Rule WQL33 as they apply to the processes on land in the riparian zones of rivers or lakes undertaken by Orion in association with establishing new network utility infrastructure.

Conditions 1-9 of Rule WQL32 provide criteria for which any disturbance or deposition of soil within a riparian zone must be met in order to qualify as a permitted activity. These conditions are considered to place undue restrictions on Orion when carrying out their essential service rollouts of

overhead and underground electricity lines/cables, footings and foundations for electricity structures and equipment kiosks/shelters and access tracks. For example:

- Conditions 1 and 2 contain qualitative standards relating to soil deposition and coloration of water for which a subjective interpretation needs to be made in determining whether an activity or process meets with the conditions. Orion is opposed to any conditions that do not provide certainty and clarity of implementation and interpretation.
- Condition 3 contains the requirement for excavation in the riparian zone to have protection and/or stabilisation works regardless of their volume or magnitude. Orion submits that this is inappropriate and inequitable. This will predominantly impact on Orion's underground cable runs either parallel to a watercourse or perpendicular to and through the water body. The trenching and thrusting techniques referred to in Part I of this submission are such that the disruption to the bed and margins of watercourses is negligible and short term and do not warrant the works outlined in this condition. The same applies to foundations and footings for overhead lines and electricity network structures and ancillary equipment kiosks/shelters.
- Condition 4 which contains the requirement to have stormwater runoff controls, water table cut offs, sediment traps and culverts on access tracks is opposed as being inappropriate and unnecessary. Orion's access tracks in the rural environment are either existing farm tracks or new four wheel drive tracks. In very remote locations, Orion uses helicopter as the means to undertake maintenance and construction visits. Four wheel drive access tracks do not require the range of works outlined in this condition.
- Condition 5 requires all trenching to be backfilled and compacted within three days of being excavated. Generally utility operators would be able to comply with this timeframe and as a general rule the trenching and thrusting techniques outlined in Part I of this submission involve immediate backfilling. However there will be times when due to the length of the cable run or the prevailing weather conditions or because multiple services are being ducted, that the three days will be insufficient. As such it is requested that either the rule be deleted or that it is altered to provide some flexibility to allow for the backfilling and compaction to occur as soon as practicable.
- Conditions 7 and 8 provide, depending on the zone concerned, that the extent of soil disturbance and volume of soil excavated must not exceed an area of 200m<sup>2</sup>/500m<sup>2</sup> or a volume of 20m<sup>3</sup>/40m<sup>3</sup> in any continuous kilometre length of a margin in a 6 month period. Conditions like these are not robust enough when considering the linear nature of long underground cable runs. In such circumstances, and as described in Part I of this notice of submission, the extent of cable laying undertaken by Orion will invariably and inevitably mean that these thresholds will be exceeded. However, the techniques by which the cable is laid (the trenching and thrusting techniques also outlined in Part I of this notice of submission) means that the disruption to the riparian environment will be minimal. This raises the issue as to why a more permissive rule regime is not being implemented. These conditions, whilst providing a time frame (a 6 month period) and spatial component, their application is unclear – i.e. do they apply to the entire region or is it a total figure for the region or just the operator or just the project? This ambiguity in the rules makes for difficult interpretation and implementation. This is open to uncertainty and is potentially ultra vires.

With regard to Conditions 1-9 of Rule WQL33 Orion is seeking an exemption for network utilities, electricity lines/cables and electricity network facilities, and access tracks (under new proposed definitions – see Submission 1b). An exemption from Conditions 1-9 of Rule WQL33 is considered appropriate given the outline of Orion processes provided in the background information in Part I of this submission, and the minimal soil disturbance or deposition associated with these processes. For example, the greatest potential for soil disturbance and deposition is associated with trenching or thrusting associated with linear cable runs. However, as it is Orion's policy/

statutory obligation to replace and rehabilitate all areas subject to cable runs the disturbance of soil is minimal.

As to the remaining conditions within Rule WQL33, Conditions 6 and 9 are not considered particularly relevant to Orion's processes, however for certainty Orion is seeking an exemption from Conditions 1-9 inclusive.

**Submission 2e – Rule WQL40: Excavation of land in a Coastal Confined Gravel Aquifer System, or over an unconfined or semi-confined aquifer – restricted discretionary activity, Content and applicability of Activity Descriptions and Conditions.**

Orion **opposes** the thresholds in the Activity Description (a)(i)(2)-(3) and Conditions 1(a) – (d) of Rule WQL40 as it relates to Orion's processes and activities associated with the excavation of land in the Coastal Confined Gravel Aquifer System or over an unconfined or semi-confined aquifer.

The activity description in (a)(i)(1), (2), and (3) contains three thresholds which if not met require a consent for a restricted discretionary activity. The 5m threshold in (1) is accepted. However, the other two thresholds in (2) and (3) are of concern to Orion, for example:

- Activity Description (a)(i)(2) is where the depth of excavation is deeper than the highest groundwater level which can reasonably be expected to occur at the site, based upon relevant and available groundwater data. This is inappropriate and impractical to determine as no groundwater levels are specified in the plan. This makes this threshold a moving target which could change over time. The uncertainty of this threshold is opposed by Orion.
- Activity Description (a)(i)(3) is where the volume of material excavated exceeds 100 cubic metres within any consecutive 12 month period. A threshold like this is not robust enough when considering the linear nature of long underground cable runs. In such circumstances, and as described in Part I of this notice of submission, the extent of cable laying undertaken by Orion will invariably and inevitably mean that a threshold like this will be exceeded. However, the techniques by which the cable is laid (the trenching and thrusting techniques also outlined in Part I of this notice of submission) means that the disruption to the aquifer environment will be minimal. This raises the issue as to why a more permissive rule regime is not being implemented. These conditions, whilst providing a time frame (a 12 month period) and spatial component, their application is unclear – i.e. do they apply to the entire region or is it a total figure for the region or just the operator or just the project? This ambiguity in the rules makes for difficult interpretation and implementation. This is open to uncertainty and is potentially ultra vires.

Conditions 1(a) – (d) provide additional thresholds over and above those outlined above as Activity Descriptions which any processes requiring the excavation of land within the listed areas must meet with in order to remain a restricted discretionary activity if the Activity Descriptions cannot be met. All those thresholds, particularly the 100m setbacks in (a) and (b), are categorically opposed by Orion. These are completely nonsensical when considering the nature of land excavation associated with electricity lines/cables and/or electricity network facilities (see Part I of the submission).

For example, if the volume thresholds in the Activity Descriptions are not adhered to then the activity triggers to a restricted discretionary activity but only so long as additional standards are met (e.g. setback from the waterway, the excavation is not within 100m of a permanently or intermittently flowing river or lake or not within 100m of the boundary of a listed wetland). If these additional standards are not met the activity then becomes a non-complying activity. As mentioned above, this is inappropriate and unrealistic as excavation associated with trenching for an underground cable or excavation for a footing for a substation or kiosk can readily be within

100m of a waterway without resulting in adverse effects on that waterway. In many instances, an underground cable will either run parallel to the river within the setback and/or will run perpendicular to it and cross it.

Based on the above, Orion is seeking an exemption to Rule WQL40 for network utilities, electricity lines/cables and electricity network facilities (under new proposed definitions – see Submission 1b) and access tracks. An exemption from Rule WQL40 is considered appropriate given the outline of Orion processes provided in the background information of this submission (Part I), the reasons outlined in this individual submission and the minimal degree of land disturbance and excavation associated with these processes that could potentially adversely effect waterbodies. For example, linear cable runs will not exceed a depth of 5m and are unlikely to occur below the highest groundwater level at any given site. All other excavation of land over or near aquifer systems will be limited to footing and foundations for electricity network facilities (i.e. poles/pylons used to support overhead lines and associated small equipment shelters and kiosks). These would not be expected to result in land excavation at a level that would affect aquifer systems.

Based on the inappropriateness of this Rule to network utilities Orion is seeking an exemption from Rule WQL40 for the reasons outlined.

**Submission 2f – Rule WQL54: Excavation of land or discharge to groundwater from land registered on the Listed Land Use Register – discretionary activity, *use of an external document***

Orion **opposes** the reference to, and inclusion of, the Listed Land Use Register in Rule WQL54 due to several reasons:

- this Register being an external document to the Plan;
- there is no reference contained in the Plan as to where this register is held or what site details are included on it; and
- it is constantly being updated and amended as site investigations are undertaken which results in additions of sites and/or site status changes.

Recent Case Law suggests that the use of external documents, such as NZ Standards and Codes of Practice, in rules or evidence is generally accepted by the Courts. However, the Courts have been consistent in requiring that reference to any external documents be clear and precise when referred to in a district or regional plan, and that any changes for substitutions accommodating changes in external documents must be subject to the RMA process emphasizing the opportunity for public participation.

Due to the above reasons, Orion considers that Rule WQL54 is inappropriate and provides a high level of uncertainty as to its implementation. Therefore, Orion is seeking an exemption from WQL54 for network utilities, electricity lines/cables and electricity network facilities (under new proposed definitions – see Submission 1b) and access tracks. An exemption from Rule WQL54 is considered appropriate given the outline of Orion processes provided in the background information of this submission (Part I), the reasons outlined in this individual submission and the minimal degree of land disturbance and excavation that could potentially take place over the ever-changing list of sites in the Listed Land Use Register (LLUR). For example, linear cable runs would cause minimal disturbance to land that is potentially contaminated due to the shallow trenches and rehabilitation works at the completion of any line/cable runs. The requirement to obtain a resource consent whenever a cable runs through a site that is listed on the LLUR would be too onerous and place undue impediments to Orion's network utility work.

Based on the inappropriateness of this Rule and the Listed Land Use Register to network utilities Orion is seeking an exemption from Rule WQL54 for the reasons outlined. Orion believes the entire rule is flawed and in addition to granting the exception requested, it is submitted that the Council should consider deleting the rule in its entirety.

**Submission 2g – Consequential Amendments to Rule WQL34 and Rule WQL62 as a result of requested changes to Rules WQL32 and WQL33, and WQL40.**

Submissions 2a – 2d have requested amendments to Rules WQL32, WQL33, which will in turn require consequential amendments to Rule WQL34 which is the default rule for a non-compliance with the conditions in Rules WQL32 and WQL33,

Submission 2e has requested amendments to WQL40 which will in turn require a consequential amendment to Rule 62, which is the default rule for a non-compliance with the conditions in Rule WQL40.

**RELIEF SOUGHT**

Orion seeks the following relief:

**Submission 2a: WQL32, Condition 1(a)(i)**

Clarify that the term “*public network utilities*” in this rule includes the utilities operated by the submitter. This could be achieved by the following alterations:

**Remove** the term “*public network utilities*” in Rule WQL32, Condition 1(a)(i) and **replace it** with “*network utilities*”.

And, **add** a new definition for “*network utilities*” as per the relief sought in Submission 1b.

**Submission 2b: Rule WQL32, Condition 1 and Conditions 2-7**

Make vegetation clearance associated with the establishment, repair and maintenance of network utilities and associated access tracks within a riparian zone that is captured by Rule WQL32 a permitted activity. This involves:

- (a) Altering **Condition 1** so that it applies not only to vegetation clearance within a riparian zone associated with the repair and maintenance of established network utilities and associated access tracks but that it also applies to/provides for vegetation clearance within a riparian zone associated with new network utilities and associated access tracks; and
- (b) Creating exemptions from **Conditions 2-7** inclusive for vegetation clearance within a riparian zone associated with both the establishment and repair/maintenance of network utilities and associated access tracks.

This could be achieved by the following alteration:

**Alter** Condition 1a of Rule WQL32 by adding the underlined word as flows:

- 1. *The vegetation clearance is only undertaken:*
  - (a) *for the establishment, repair or maintenance of:*
    - (i) *network utilities*
    - (ii) *.....*

**Add** a new condition to Rule WQL32 as follows:

- “8. Conditions 2-7 do not apply to vegetation clearance within a riparian zone undertaken in association with the establishment, maintenance or repair of network utilities and associated access tracks. The use of land in a margin of a river or lake for vegetation clearance in association with the establishment, repair or maintenance of network utilities and associated access tracks is a permitted activity”*

### **Submission 2c and 2d: Rule WQL33**

Make disturbance or deposition of soil associated with the establishment, repair and maintenance of network utilities and associated access tracks within a riparian zone, that is captured by Rule WQL33, a permitted activity. This involves:

- (a) clarifying that the rule permits not only the disturbance or deposition of soil within a riparian zone associated the repair and maintenance of established network utilities and associated access tracks, but that it also applies to/provides for the disturbance or deposition of soil within a riparian zone associated with new network utilities and associated access tracks; and
- (b) Creating exemptions from conditions 2-7 inclusive for disturbance or deposition of soil within a riparian zone associated with both the establishment of new and repair/maintenance of established network utilities and associated access tracks; and

This could be achieved by the following alteration:

**Add** a new condition to Rule WQL33 as follows:

- “10. Conditions 1-9 do not apply to the disturbance or deposition of soil within a riparian zone undertaken in association with the establishment, maintenance or repair of network utilities and associated access tracks. The use of land in a margin of a river or lake for the disturbance or deposition of soil within a riparian zone in association with the establishment, repair or maintenance of network utilities and associated access tracks is a permitted activity”*

### **Submission 2e: Rule WQL40**

Make excavation of land where it occurs in the Coastal Confined Gravel Aquifer system or over an unconfined or semi confined aquifer, that is captured by Rule WQL40, a permitted activity. This involves:

- (a) clarifying that the rule permits not only the excavation of land associated with repair and maintenance of established network utilities and associated access tracks but that it also applies to/provides for the excavation of land associated with new network utilities and associated access tracks; and
- (b) Creating exemptions from conditions 1(a) – (d) inclusive for excavation of land associated with both the establishment of new and repair/maintenance of established network utilities and associated access tracks;

This could be achieved by the following alteration:

**Add** the following underlined words at the end of the first column to Rule WQL40 under the Activity heading of the Table on Page 4-149:

*“For the purposes of this rule, excavation of land does not include the drilling or disturbance of land to construct or maintain a bore, or where the excavation of land is associated with a network utility including associated access tracks:”*

#### **Submission 2f: Rule WQL54**

**Either:**

**Delete** this rule in its entirety, **or**

Create an exemption/permitted activity status for the excavation of land or discharge to groundwater from land listed on the Land Use Register undertaken in conjunction with the establishment, repair or maintenance of network utilities and associated access tracks.

The later relief could be achieved by the following alteration:

**Adding the** following sentences to the end of Rule WQL54 under the Activity heading of the Table on Page 4-168:

*“Rule WQL54 does apply to excavation of land or discharge to groundwater associated with the establishment, repair or maintenance of network utilities and associated access tracks. Those activities are permitted for the purpose of this rule.”*

#### **Submission 2g: Rules WQL34 and WQL 62**

Make consequential amendments to Rules WQL34 and WQL62 to give effect to the relief sought in submissions 2b – 2f in order to clarify that the default non-complying status in those rules do not apply to network utilities which do not comply with (but are requested to be exempt from) rules WQL32, WQL33 and WQL40

This could be achieved by the following alterations:

**Add** the following underlined words to Rule WQL62 under the Activity heading of the Table on Page 4-179:

*“The following uses of land are non-complying activities, and require a land use consent, except where it is permitted or exempt from control under Rule WQL40.”*

**Add** the following underlined words to Rule WQL34 under the Activity heading of the Table on Page 4-143:

*“The following uses of land are restricted discretionary activities, and require a resource consent, except where it is permitted or exempt from control under Rules WQL32 and WQL33.”*

## **Submissions 2b-2g Combined**

Make consequential amendments to the objectives and policies in Chapter 4 to reflect that certain activities involving:

- Vegetation clearance within a riparian zone,
- Disturbance or deposition of soil within a riparian zone,
- Excavation of land where it occurs in the Coastal Confined Gravel Aquifer system or over an unconfined or semi confined aquifer, and
- Excavation of land or discharge to groundwater from land listed on the Listed Land Use Register,

where undertaken in association with the establishment, repair or maintenance of network utilities and associated access have been permitted in Chapter 4 of the Plan. It should be recorded that this status is a function of the importance that such utilities have in terms of the Canterbury region as documented in the RPS and also the fact that the effects of such activities are minor.

There may, however, be other methods of achieving the desired relief listed in Submissions 2a to 2g.

### **SUBMISSION 3:**

## **CHAPTER 6: BEDS AND MARGINS OF LAKES AND RIVERS**

### **SECTION 6.6: REGIONAL RULES**

#### **DISTRICT PLAN PROVISIONS**

The specific provisions in Chapter 6, Section 6.6 of the Plan to which Orion's submission relates are:

- Rule BLR1 Use, maintenance, reconstruction, alteration, extension, demolition or removal of existing structures – permitted activity
- Rule BLR2 Erection or placement of structures – permitted activity
- Rule BLR3 Excavating, drilling, tunnelling or disturbance within the bed – permitted activity
- Rule BLR5 Disturbance of vegetation and harvesting practices – permitted activity
- Rule BLR6 Activities in natural state or high naturalness areas – permitted activity
- Rule BLR7 Land use activities within 7.5 metres of the bed or a flood protection structure – permitted activity
- Rule BLR8 Structures, excavating, disturbance, planting, deposition, reclamation or drainage – discretionary activities

#### **INTRODUCTORY NOTE**

These Submissions to Chapter 6 are made in relation to

- (a) The use, maintenance, reconstruction, alteration, extension, demolition or removal of existing utility infrastructure (structures and lines/cables) in, on, over or under the bed of a lake or a river,
- (b) The erection or placement of new utility infrastructure (structures and lines/cables) in, on, over or under the bed of a lake or a river
- (c) The processes specifically required to establish or alter the structures outlined in (a) and (b) above. Specially those processes are:
  - Excavation, drilling, tunnelling or disturbance of the bed of lakes and/or rivers.
  - Planting or removal of any plant from the bed
  - Depositing of any substance in the bed
  - Reclamation of the bed.

These processes have been outlined in the background section of this submission. It is essential that the background material in Part I of this notice of submission is read in conjunction with the following individual submissions as it establishes the nature of the processes and the minor nature of the associated effects. It also avoids having to repeat the description in every individual submission in this notice.

## **SUBMISSIONS**

### **Submission 3a – General submission to Rules BLR1 - BLR7**

Orion's submissions to the provisions of chapter 6 can be readily divided into generic and specific concerns. The specific concerns in respect to each of the identified rules are outlined in the individual submissions that follow (i.e. Submissions 3b - 3f). In the meantime, there is a more fundamental concern inherent in Orion's submissions and this is outlined immediately below. This generic concern should be read as context for the individual submissions that follow:

The fundamental concern relates to the extent of control inherent in Chapter 6 and is expressed as follows:

- In the Introduction to Chapter 6 on page 6-1 it is stated that the chapter covers "*land use within the beds and margins of lakes and rivers*". The emphasis on the beds and margins of lakes and rivers is also reflected in the title of the chapter. However, the terminology used in Rules BLR1 - BLR7 departs from this. With the exception of BLR7 (which is discussed shortly), the focus in those rules appears to be solely on the bed of lakes and rivers and the rules control processes and structures in, on, under, or over the bed of the river/lake. Based on Figure BLR4 on page 6-26, a bed of a lake or river does not include the margin of a lake or river – the margin is shown to be adjoining but outside the bed of a lake or river in that conceptual diagram.
- As mentioned above, the exception seems to be Rule BLR7 which controls land within 7.5 metres of the bed of the river. In other words it could be said to control a 7.5 wide margin from the bed. On the surface this appears to be the only application of the rules to what might be called the 'margin' of a river or lake.
- Whilst this might on the surface appear to be an issue of semantics, the impact of this potential disparity is of fundamental significance to Orion. Essentially it will be the sole determinant of which of the structures, activities and processes it undertakes (which are described in detail in Part I of this submission) are directly affected by the rules in Chapter 6. There are two possibilities arising as follows:
  - Scenario A: That Chapter 6 rules (with the exception of Rule BLR7) do cover both the margins and beds of lakes and rivers and therefore all the activities and structures outlined in Part I of the submission will be affected; that is: electricity cables and lines (overhead and underground) plus what has been termed "electricity network facilities" which is essentially the plant and equipment which are typically found at Orion's 10,000 low level substations in the region. As Part I of the submission and the definition of this term in Submission 1b outline, this is essentially the equipment involved in the conversion of electricity supply and includes kiosks, ground mounted transformers, equipment sheds, and associated equipment or apparatus, as well as support structures such as guyes, support wires, and ancillary buildings. For the low level sub-stations these are largely contained within a small equipment shelters. For the larger substations (of which there are currently 48) the extent of buildings and other structures is greater.
  - Scenario B: That Chapter 6 rules (with the exception of Rule BLR7) do not cover both the margins and beds of lakes and rivers and are limited to structures and processes in, on, under, or over the bed of a river or lake and therefore only the structures and processes affecting electricity lines and cables (overhead and underground) will be affected. In other words the rules will only impact on waterway crossings for cables and lines. It is highly improbable that a kiosk substation would be located in the bed of a river/lake.

- The uncertainty of the above point has affected the way that Orion has approached its submission and particularly affects the nature of the relief sought. Based on caution, Orion has assumed that Scenario A applies. This has resulted in a reasonably high degree of opposition to the rules. Essentially, and based on that conservative assumption, Orion has sought complete exemptions from the rules for all its facilities i.e. both the electricity lines and cables (those facilities associated with conveyance and distribution) and Electricity network facilities (the structures associated with the conversion of electricity supply). That level of opposition could be modified and clarified if it is determined that Scenario B actually applies.
- The above approach is reflected in the specific submissions that follow.

**Submission 3b – Rule BLR1: Use, maintenance, reconstruction, alteration, extension, demolition or removal of existing structures and the processes used to undertake these activities – permitted activity,**

**Submission 3c – Rule BLR2: Erection and placement of structures – permitted activity,**

**Submission 3d: Rule BLR3: Excavation, drilling, tunnelling or disturbance within the bed – permitted activity,**

These three rules essentially affect three aspects of Orion's operation; namely:

- The repair and maintenance (including replacement) of all existing cables/lines and electricity network facilities and tracks;
- The placement of new cables/lines and electricity network facilities and associated access tracks;
- The processes associated with the above structures (i.e. drilling, thrusting, trenching, clearance etc).

As a general rule, the content of the provisions in these rules is largely permissive in that the activities and processes are permitted subject to meeting certain prescribed conditions. This is supported. However, the issue for Orion is two fold.

- Firstly, do the rules apply only to the beds of lakes and rivers and therefore only to electricity lines and cables (Scenario B) or do the rules apply to all infrastructure as outlined in Scenario A. If the latter applies then many of the conditions upon which permitted activity status is based will not be met. On that basis, Orion opposes the rules and seeks a full exemption from these rules for its entire infrastructure.
- Secondly, on the basis that Scenario B applies then the issue is which of the conditions in each of the three rules might be a problem and should, therefore, either be altered or Orion's activities exempted from their application. Under this issue, Orion has specified in its relief that certain exemptions should be implemented.

Given the simplicity of the first issue and its associated relief the remainder of this submission focuses on the second issue.

Rule BLR1: Use, maintenance, reconstruction, alteration, extension, demolition or removal of existing structures and the processes used to undertake these activities – permitted activity

Orion **opposes** Conditions 1-8 in Rule BLR1 as they apply to the use, maintenance, reconstruction, alteration, extension, demolition or removal of existing structures and the associated processes of excavating, drilling, tunnelling, vegetation disturbance etc undertaken by network utility operators, such as Orion, in the beds of rivers or lakes.

**Condition 2** provides that for the reconstruction, alteration or extension of any existing electricity network structures, the area of bed supporting the structure over or above a level of activity permitted under Rule BLR2 shall not increase. Orion considers that this condition is not necessary as by ruling out the possibility of any increase in the area of bed supporting a structure the intent of the rule for extension, alteration and reconstruction of existing structures is contradicted. Furthermore, the fact that the area of the bed supporting the structure might increase does not automatically or in isolation mean that there will be adverse effects on the bed of the river. In fact so long as other conditions such as Condition 1 relating to the limit on water impounding, Condition 4 regarding fish passage, Condition 6 regarding plant species, Condition 6 regarding navigation, and Condition 8 regarding rehabilitation are adhered to then the area of the bed supporting the structure is largely irrelevant.

**Condition 7** of Rule BLR1 contains conditions that are not measurable until after the activity or process has occurred. Those conditions are also open for a subjective interpretation that may result in many differing opinions on whether the condition is actually met or not. For example:

- the coloration standards in Condition 7a do not have a point of reference in terms of the control against which the change of colour is to be measured. The degree of change in clarity or colour will be determined by the state of the water at the time the structure and associated process is altered. The 60-minute test will not necessarily provide the appropriate control standard.
- Furthermore, by the time it is detected that there is a change in the coloration from any discharge of sediment into water, it is effectively too late to determine whether the condition to be met – in other words compliance will not be determined until the process occurs and the standard is either exceeded or not.
- The increase in embeddedness of the structure (Condition 7(b)) is not appropriate also for the reasons outlined for opposing Condition 2.

With regard to the above listed identified conditions in Conditions 1-8 Orion is seeking an exemption for network utilities, electricity lines/cables and electricity network facilities (defined under new proposed definitions – see Submission 1b), and access tracks. An exemption from those conditions in Rule BLR1 is considered appropriate given the outline of Orion's processes provided in the background information of this submission (Part I), and the minimal disturbance of the beds of rivers and lakes associated with these processes.

For example, the greatest potential for vegetation clearance or land disturbance is associated with the repair and maintenance of in-stream cable crossings. For the reasons outlined in Part I of this submission, where the process of such a cable crossing is described, it is obvious that the clearance of vegetation or disturbance of land is minimal and is subject to reinstatement works at the completion of the process or activity. All other vegetation clearance or land disturbance in the beds of lakes and rivers will be limited to footings and foundations for electricity network facilities (i.e. poles/pylons used to support overhead lines and/or footings and foundations for small kiosks and low level substations). Invariably there will be some vegetation clearance or land disturbance for access tracks in the beds and margins of rivers and lakes but this will be minor.

Rule BLR2: Erection and placement of structures – permitted activity, *Content and Implementation of Conditions 1-14*

Orion **opposes** Conditions 1-14 in Rule BLR2 as they apply to the erection and placement of new structures and the associated processes of excavating, drilling, tunnelling and vegetation disturbance etc undertaken by network utility operators, such as Orion, in, on, over or under the beds of rivers or lakes.

Conditions 8, 9a and 9b of Rule BLR1 contain provisions that are not measurable until after the activity or process has occurred. They are also open for a subjective interpretation that may result in many differing opinions on whether the condition is actually met or not. For example:

- In Condition 8 whether a structure increases the risk of flooding is unlikely to be known before the structure is established.
- With Condition 9(a), when detecting the change in coloration from any discharge of sediment into water, the ability to meet the condition is not determined until it is exceeded.
- With Condition 9(b), the requirement that the sediment discharge into water shall not increase the embeddedness of the bed substrate by more the 20 percent is considered to be very difficult to determine without a control point, and changing river conditions over a period of time. It is submitted that it does not provide any certainty and is largely immeasurable.

With regard to the remaining Conditions in 1-14, it is difficult to determine the degree to which they are relevant or are likely to be impediments to Orion's structures and the processes for establishing them in, on, under and over waterways in Canterbury. For this reason, and so as to provide certainty, Orion is seeking a complete exemption for network utilities, electricity lines/cables and electricity network facilities (under new proposed definitions – see Submission 1b), and access tracks from Conditions 1-14 of Rule BLR2. An exemption is considered appropriate given the outline of Orion's processes provided in the background information of this submission (Part I), and the minimal disturbance of land or vegetation associated with these processes. For example, the greatest potential for vegetation clearance or land disturbance in the bed of a river or lake is associated with underground cable runs which cross water via the bed of the waterway as opposed to being attached to a structure such as a bridge over the waterway. Effectively, this means that those waterways at greatest risk are the smaller streams and creeks which do not have bridge crossings in existence. For larger rivers, the crossing will invariably use existing bridge structures and there will be no disturbance to the bed of the waterway. The methods of undertaking in stream cable crossing as described in Part I of this submission are such that will be:

- Some disturbance of the bed of lakes and/or rivers with little or effect;
- No additional planting of vegetation in the bed and no removal of any plant per se from the bed;
- No deposition of any substance in the bed;
- No reclamation of the bed.

The above potential effects are the matters that have been identified as underpinning this rule and the absence of such effects means that the application of such a rule to Orion's cable laying in waterways is not appropriate.

All other vegetation clearance or land disturbance in the beds of lakes and rivers will be limited to footing and foundations for electricity network facilities (i.e. poles/pylons used to support overhead lines and/or footings and foundations for small kiosks and substations). Invariably there will be some vegetation clearance or land disturbance for these structures in the beds and margins of rivers and lakes but this will be minor.

Rule BLR3: Excavation, drilling, tunnelling or disturbance within the bed – permitted activity, Content and Implementation of Conditions 1-10

Orion **opposes** Conditions 1-10 of Rule BLR3 as they apply to the excavation, drilling, tunnelling or disturbance in, on, over, or under the bed of a lake or river and the associated deposition of excavated material on the bed of a lake or river undertaken by network utility operators, such as Orion, that are not covered in Rules BLR1 and BLR2.

It is not clear what additional constraints that this rule will place on Orion that is not already covered by Rules BLR1 and BLR2. Orion's preference is that its defined network utility infrastructure (repair and maintenance of existing and placement of new) is exempt from this rule in totality and any application of rules to that infrastructure be solely contained in Rules BLR1 and BLR2. An alteration to Rule BLR3 to record this may suffice.

Points in support of the above concerns are as follows:

- Conditions 2, 3, 4 and 5 contain threshold diameters and volumes for land being disturbed that do not equate with the linear type excavations associated with cable laying. Such laying could well exceed those figures but with little or no adverse effect resulting. In particular, Condition 5 requires that cables would need to be in excess of 50m of any lawfully existing dam, weir, crossing, surface water intake plant, pylon or 150m from an existing water level recorder and existing flood control structures/vegetation if it is to be a permitted activity. Orion considers this rule to be inappropriate, unrealistic and too onerous for the minor effects that their processes have. Conditions 2, 3 and 4 have similar restrictions that are not considered applicable to the processes associated with network utilities, electricity lines/cables, electricity network facilities or associated access tracks.
- Conditions 6, 7, and 8 of Rule BLR3 provide conditions that are not measurable until after the activity or process has occurred. They are also open for a subjective interpretation that may result in many differing opinions on whether the condition is actually met or not. For example:
  - In Condition 6, whether an activity or process increases the risk of flooding is unlikely to be known before that activity is undertaken.
  - With Condition 7 it will not be known if there is any destabilizing of flood control vegetation until it is detected.
  - Condition 8 is unrealistic as it relates to the process of thrusting underground cables underneath a small stream, when there are no other options for a cable crossing, and the requirement that such an activity shall not occur within surface water or at or below the water table.

Given the above issues the simplest approach would be to simply exempt the placement of network utilities and processes for establishing and repairing them from this rule. The alternative is to alter the particular conditions identified above so that they do not apply to network utilities. These options are reflected in the relief sought.

**Submission 3e: Rule BLR5: Disturbance of vegetation and harvesting practices – permitted activity, Content and Implementation of Conditions 1-6**

Orion **opposes** Conditions 1-6 of Rule BLR4 as they apply to the disturbance, removal, damage or destroying of vegetation in, on, over, or under the bed of a lake or river and the associated disturbance of the bed and deposition of plant material on the bed of a lake or river undertaken by network utility operators, such as Orion.

Conditions 2, 3, 4, 5 and 6 of Rule BLR5 provide conditions that are not measurable until after the activity or process has occurred. They are also open for a subjective interpretation that may result in many differing opinions on whether the condition is actually met or not. For example:

- In Condition 2, whether an activity or process increases the risk of flooding is unlikely to be known before that activity is undertaken, likewise in Condition 5 whether the passage of fish is obstructed will not be known before an activity commences.
- With Conditions 3 and 4 who will determine whether access is restricted to flood control structures or vegetation for the purpose of repair and maintenance, or whether in Condition 4 vegetation has been damaged or destroyed by the activity being undertaken when it may have occurred previously by some other unrelated activity or event.
- Likewise with Conditions 6, it is effectively too late by the time it is detected that there is a change in coloration from any discharge of sediment into water. The ability to meet the condition is not determined until it is exceeded.

With regard to Conditions 1-6 Orion is seeking an exemption for network utilities, electricity lines/cables and electricity network facilities (under new proposed definitions – see Submission 1b), and associated access tracks. An exemption from Conditions 1-6 of Rule BLR5 is considered appropriate given the outline of processes provided in the background information of this submission (Part I), and the minimal disturbance of vegetation and the bed associated with these processes. For example, the greatest potential for vegetation and land disturbance is associated with linear cable runs either across small streams or parallel to lakes and rivers. However, any disturbance of land or vegetation is minimal and subject to reinstatement works at the completion of the process or activity. All other land and vegetation disturbance in the beds and margins of lakes and rivers will be limited to footing and foundations for electricity network facilities (i.e. poles/pylons used to support overhead lines and/or footings and foundations for small kiosks and substations). Invariably there will be some land disturbance for access tracks in the beds and margins of rivers and lakes but this will be minor.

Orion is seeking an exemption for network utilities, electricity lines/cables, electricity network facilities and access tracks from Conditions 1-6 inclusive for reasons of complete certainty.

### **Submission 3f: Rule BLR7: Land use activities within 7.5 metres of the bed or flood protection structures – permitted activity, *Content and Implementation of Conditions 1-5***

Orion **opposes** Conditions 1-5 of Rule BLR7 as they apply to the use of land within 7.5 metres of the bed of a lake or river, or any flood protection structure that is undertaken by network utility operators, such as Orion. As mentioned elsewhere this appears to be the only rule in Chapter 6 that affects the margin of a river or lake. Orion's submission is based on this interpretation. Furthermore, Orion's submission takes the view that none of its utilities will create any impact on this 7.5 metre wide margin to an extent that it needs to be covered by this rule. The placement of lines/cables and small equipment kiosks/shelters in this area should be exempt from this rule in entirety. The reasons for this are inherent in the description of these structures and their processes in Part I of this submission.

Specific problems with this rule are as follows:

- Conditions 1, 2, 3 and 4 of Rule BLR7 provide conditions that are not measurable until after the activity or process has occurred. They are also open for a subjective interpretation that may result in many differing opinions on whether the condition is actually met or not. For example:

- In Condition 1, whether an activity or process increases the risk of flooding is unlikely to be known before that activity is undertaken.
- With Condition 4, who will determine whether access is restricted to flood control structures or vegetation for the purpose of repair and maintenance, or whether in Condition 2 vegetation has been damaged or destroyed by the activity being undertaken when it may have occurred previously by some other unrelated activity or event.
- Likewise with Conditions 3, it is effectively too late by the time it is detected that there is a change in coloration from any discharge of sediment into water. The ability to meet the condition is not determined until it is exceeded.
- Even though Condition 5 does not appear relevant to Orion's processes and activities (it is unlikely they will plant any of the species identified in Schedule BLR1), Orion is seeking an exemption from Conditions 1-5 for network utilities, electricity lines/cables and electricity network facilities (under new proposed definitions – see Submission 1b), and associated access tracks.

An exemption from Conditions 1-5 of Rule BLR7 is considered appropriate given the outline of processes provided in the background information of this submission (Part I), and the minimal disturbance of land, within 7.5 metres of the bed and flood protection structures, associated with these processes. For example, the greatest potential for the use of land or land disturbance within the 7.5 metre setback is associated with linear cable runs either across small streams or parallel to lakes and rivers. However, any use or disturbance of land is minimal and subject to reinstatement works at the completion of the process or activity. All other land and use and disturbance in the beds and margins of lakes and rivers will be limited to footing and foundations for electricity network facilities (i.e. poles/pylons used to support overhead lines and/or footings and foundations for small kiosks and substations). Invariably there will be some land disturbance for access tracks in the beds and margins of rivers and lakes but this will be minor.

Orion is seeking an exemption for network utilities, electricity lines/cables, electricity network facilities and access tracks from Conditions 1-5 inclusive for reasons of complete certainty.

**Submission 3g – Consequential Amendments to Rule BLR8 as a result of requested changes to Rules BLR1, BLR2, BLR3, BLR5, and BLR7.**

Submissions 3a – 3f have requested amendments to Rules BLR1, BLR2, BLR3, BLR5, and BLR7 which will in turn require consequential amendments to Rule BLR8 which is the default rule for a non-compliance with the conditions in these rules.

**RELIEF SOUGHT**

Orion seeks the following relief:

**Submission 3a: General submission to rules BLR1-7**

Clarify that Rules BRL1-6 do not apply to the margins of rivers and lakes and that they apply only to activities in, on, over or under the beds of rivers and lakes.

This could be achieved by the following alteration to Table BLR2: Index of Rules:

**Alter** Table BLR2: Index of Rules by Condition 1a of Rule WQL32 by adding the following sentence to the end of the column entitled “*Where Rule Applies*”:

*“Rules BLR1 To BLR6 apply to structures, activities and processes required to undertake those activities in, on, over or under the bed of a lake or river. They do not apply to the margins of a bed or river as illustrated in Figure BLR4”*

**Submissions 3a, 3b, 3c, 3d and 3e: Rules BLR1-BLR3 and BLR5**

(a) Make the following activities that are captured by Rule BLR1-BLR3 and BLR5 a permitted activity without being subject to the conditions that are listed under each of those rules:

- The repair and maintenance (including replacement) of all existing cables/lines and electricity network facilities and associated tracks
- The placement of new cables/lines and electricity network facilities and associated tracks
- The processes associated with the above structures (i.e. drilling, thrusting, trenching, clearance etc)

This can be achieved by including a simple exemption in the box entitled “*Where Rule Applies*” in the first column of each rule as follows:

*“This rule does not apply to activities associated with a network utility including associated access tracks. Such activities are a permitted activity without the requirement to comply with the conditions listed in this rule.”*

(b) As an alternative, and without prejudice to the above preferred relief in (a), create an exemption for activities associated with a network utility including associated access tracks (as listed in (a) above) from the following conditions:

- Rule BLR1: Conditions 2 and 7
- Rule BLR2: Conditions 8 and 9
- Rule BLR3: Conditions 2, 3, 4, 5, 6, 7 and 8
- Rule BLR5: Conditions 2, 3, 4, 5 and 6.

**Submission 3f: Rule BLR7: Land use activities within 7.5 metres of the bed or flood protection structures – permitted activity**

(a) Make the following activities that are captured by Rule BLR7 a permitted activity without being subject to the conditions that are listed under each of those rules:

- The repair and maintenance (including replacement) of all existing cables/lines and electricity network facilities and associated tracks
- The placement of new cables/lines and electricity network facilities and associated tracks
- The processes associated with the above structures (i.e. drilling thrusting trenching, clearance etc)

This can be achieved by including a simple exemption in the box entitled “*Where Rule Applies*” in the first column of each rule as follows:

*“This rule does not apply to activities associated with a network utility including associated access tracks. Such activities are a permitted activity without the requirement to comply with the conditions listed in this rule.”*

### **Submission 3g: Rule BLR8**

**Add** the following underlined words to Rule BLR8 under the Activity heading of the Table on Page 6-34:

.....in, on, over or under the bed of any lake or river that is not classified as a permitted activity or is exempt from the conditions under Rules BLR1 – BLR3, BLR5 and BLR7, a restricted discretionary activity or a prohibited activity in this chapter is a discretionary activity.

### **Submissions 3a-g Combined: Objectives and Policies of Chapter 6**

Make consequential amendments to the objectives and policies in Chapter 6 to reflect that certain activities involving:

- Use, maintenance, reconstruction, alteration, extension, demolition or removal of existing structures and the processes used to undertake these activities
- Erection and placement of structures
- Excavation, drilling, tunnelling or disturbance within the bed
- Disturbance of vegetation and harvesting practices
- Land use activities within 7.5 metres of the bed or flood protection structures

where undertaken in association with the establishment, repair or maintenance of network utilities and associated access tracks are now permitted in Chapter 6 of the Plan. It should be recorded that this status is a function of the importance that such utilities have in terms of the Canterbury region as documented in the RPS and also the fact that the effects of such activities are minor.

There may, however, be other methods of achieving the desired relief listed in Submissions 3a to 3g.