



Kirwee Water Treatment Plant

Notice of Requirement to designate Lot 400 DP 528758

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January 5, 2021

Selwyn District Council



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Document history and status

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A	14/12/20	Draft for Client Comment	KM		AH	CL
0	05/01/21	Final for Lodgment	KM		JG, ME	CL

Form 18

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Attn: Policy team

From: Selwyn District Council
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(Please note different address for service given below)

Selwyn District Council gives notice of a requirement to designate Lot 400 DP 528758 for a potable water supply, treatment and storage facility.

The designation will cover the entirety of the land parcel. It is intended that the designation be listed in Appendix E02 of the Selwyn District Plan as follows:

Des. No.	Authority Responsible	Site Name	Location	Legal description and Area
DXX	Selwyn District Council	Water Supply	Hoskyns Road, Kirwee	Lot 400 DP 528758 (2500m ²)

The site to which the requirement applies is as follows:

The site is located at 1695 Hoskyns Road. The site is legally described as Lot 400 DP 528758, held in Record of Title 855915. The Record of Title is provided as Appendix A. A full description of the site and surrounding area is contained in section 2 of this document.

The nature of the proposed public work is:

The proposed public work is a water treatment plant and associated storage reservoirs to supply potable water to Kirwee. Please refer to Section 3 of this document for a detailed description of the proposed work.

Selwyn District Council considers that this Notice of Requirement provides sufficient detail to satisfy the information requirements expected in section 176A(2)(b) of the Resource Management Act 1991 relating to Outline Plans of Work for projects associated with designations. Therefore, it is considered that a separate Outline Plan is not required.

The nature of the proposed conditions that would apply are:

Selwyn District Council proposes the following conditions on the designation:

General Accordance

1. The designation shall be implemented in general accordance with the details provided with the Notice of Requirement:

(a)

Outline Plan

2. Works undertaken in accordance with the NOR will not require an Outline Plan.

Lapse Date

3. The designation shall lapse on the expiry of 10 years from the date on which it is included in the District Plan if it has not been given effect to before the end of that period.

Landscaping

4. A landscaping plan shall be provided to [Council Manager] for certification prior to the commencement of construction of the treatment plant building. Landscaping shall be sufficient to soften and partially shield the structures on the site from view from Hoskyns Road and adjacent residential sites.

5. The planting shall be undertaken within the first planting season following the certification of the landscaping plan. Should any plants die or be destroyed, they shall be replaced with the same or similar species as soon as practicable.

The effects that the project will have on the environment, and the ways in which any adverse effects will be mitigated, are:

Please refer to Section 4 of this document for an assessment of effects on the environment and mitigation measures proposed.

Alternative sites, routes and methods have been considered to the following extent:

Selwyn District Council has an interest in the land sufficient to undertake the work and adverse effects on the environment are anticipated to be less than minor. In accordance with s.171(1)(b) RMA, an assessment of alternative sites was not considered to be necessary.

Alternative methods for water supply have been considered in Section 5.2.

The public work and designation are reasonably necessary for achieving the objective of the requiring authority because:

The Project Objective is to provide a second potable water supply, treatment and storage facility for Kirwee to increase the capacity, reliability and sustainability of the townships' water supply.

Due to population growth and increasing demand for potable water, a new well and increased storage capacity is required to supply potable water for Kirwee. If increased demand cannot be accommodated, then a decline in level of service will be experienced, resulting in unacceptable risks to the health and wellbeing of the Kirwee community.

This second supply and water treatment plant at 1695 Hoskyns Road is intended to assist the existing supply at the Kirwee Domain and provide redundancy.

A resource consent from Environment Canterbury is required to authorise the proposed public work.

Rule 5.115 of the Land and Water Regional Plan states that the taking and using of water for a community water supply from groundwater or surface water is a restricted discretionary activity. Selwyn District Council has applied for this resource consent (ECAN reference CRC211833). This application will result in the establishment of a Community Drinking Water Supply Protection Zone around the site.

CRC211833 is an application for a variation (change of conditions under s.127 RMA) to the existing resource consent CRC158020 relating to the existing water supply at the Kirwee Domain. The combined volume to be extracted from the existing and new supply will remain unchanged from the 396,450m³ per year approved by CRC158020. CRC211833 is currently in process and has not yet been granted.

The following consultation has been undertaken with parties that are likely to be affected:

Environment Canterbury is processing the resource consent application CRC211833 to take and use water for a community water supply.

Selwyn District Council attaches the following information required to be included in this notice:

Appendix A: Record of Title

Appendix B: Site Plan

The information has been provided in sufficient detail to satisfy the purpose for which it is required.



Date: 5 January 2021

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Important note about your report

The sole purpose of this report and the associated services performed by Jacobs is to prepare a Notice of Requirement for the proposed water treatment plant at 1695 Hoskyns Road, Kirwee in accordance with the scope of services set out in the contract between Jacobs and Selwyn District Council (the Client).

In preparing this report, Jacobs has relied upon, and presumed accurate, any information (or confirmation of the absence thereof) provided by the Client and/or from other sources. Except as otherwise stated in the report, Jacobs has not attempted to verify the accuracy or completeness of any such information. If the information is subsequently determined to be false, inaccurate or incomplete then it is possible that our observations and conclusions as expressed in this report may change.

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1. Introduction

1.1 Background

1.1.1 Population Growth

Selwyn district is growing. Until 2019, Selwyn was the nation's fastest growing district, and was for over six years. Selwyn is now the second fastest growing district behind Queenstown. The majority of the population growth is concentrated on the commuter belt close to Christchurch.

Kirwee is located only 27km west of Christchurch, within easy commuting distance. Projected growth in population and households in Kirwee is summarised in Table 1.1 below.

Table 1.1: Projected Population Growth in Kirwee

	2020/21	2033/34	2047/48
Population	1054	1530	2019
Households	390	590	808

The population and number of households within Kirwee are expected to double by 2048.

1.1.2 Existing Water Supply

Kirwee's water supply is sourced from a deep well located in the Kirwee Domain, adjacent to the Kirwee Tennis Club on High Street. The consented maximum daily volume is 3,110m³, with a consented maximum annual volume of 396,450m³.

The water supply was installed in 1981 to replace individual supplies from roof tanks and water races. Water from the well is treated with UV disinfection before being delivered to a 450m³ storage reservoir and pumped into the reticulated network. Water is provided to both the Kirwee Township (unrestricted supply) and a restricted supply to rural properties surrounding the township.

The UV treatment is effective. Annual testing from 2019 confirmed that the water supply does not exceed any of the Maximum Acceptable Values specified in the Drinking Water Standards for New Zealand¹.

The existing well supply and treatment plant at the Domain will be retained.

1.1.3 Increasing Demand

As a provider of water services, Selwyn District Council has a statutory obligation to provide safe water for drinking and sanitation to the community. On average, a Selwyn urban household uses 1400 litres per day. As the Selwyn communities grow, there is expected to be a commensurate increase in demand for water resources.

Climate change will also play a part in increasing demand for potable water. Higher temperatures and higher evapotranspiration influenced by climate change is expected to increase the peak water demand by 1-2%, and result in an increased frequency of low groundwater levels².

In an effort to monitor water demand, water meters were installed at all properties connected to a Council supply in 2017-2018.

¹ https://www.selwyn.govt.nz/_data/assets/pdf_file/0020/305345/Lab-test-results-all-Water-Schemes-20196.pdf

² https://www.waternz.org.nz/Attachment?Action=Download&Attachment_id=2873

The demand for potable water in Kirwee (as of 2017) is outlined in Table 1.2 below.

Table 1.2: Minimum, Average and Peak Daily Demand for Potable Water in Kirwee

Daily Demand	Minimum	Average	Peak
Quantity (m ³)	223	620	2,016

The existing facility at the Domain has insufficient storage to cater for peak daily demand and have sufficient water left over for firefighting in summer. The risk of supply interruption in Kirwee was identified as a 'Very High' risk in the Selwyn District Council's 5Waters Activity Management Plan³. Without an additional supply and additional storage capacity, additional demands due to population growth and climate change will result in increased water restrictions being imposed (as they were in the summer of 2015). This results in reduced firefighting capacity and an increased risk of non-compliance with resource consent limits and the Drinking Water Standards of New Zealand.

1.1.4 Selwyn District Council's Level of Service Obligations

Selwyn District Council (SDC) provides a water service to protect the health and to promote the wellbeing and economic growth of the district. Relevant Level of Service statements promulgated in the 5Waters Activity Management Plan 2018 are:

- The water supply network is provided to growing communities, where this growth is sustainable;
- There is enough water supplied to meet customer needs;
- There is adequate fire fighting supply in the approved area;
- Residents are satisfied with the water supply provided;
- The water supply network is managed to give a good quality service; and
- Water is safe to drink and complies with the Drinking Water Standards of New Zealand.

1.2 Project Objective

The Project Objective is to provide a second potable water supply, treatment and storage facility for Kirwee to increase the capacity, reliability and sustainability of the townships' water supply.

Due to population growth and increasing demand for potable water, a new well is required to supply potable water for Kirwee. If increased demand cannot be accommodated, then a decline in level of service will be experienced, resulting in unacceptable risks to the health and wellbeing of the Kirwee community.

This second supply and water treatment plant at 1695 Hoskyns Road is intended to assist the existing supply at the Kirwee Domain and provide redundancy.

1.3 Notice of Requirement

This document particularly sets out:

- The nature of the public work at this site;
- An assessment of the effects of the designation and therefore the nature of any proposed conditions for the designation;
- The ways in which any adverse effects will be mitigated;

³ Adopted by Council in June 2018

- How the project is reasonably necessary for the achievement of the SDC's objectives;
- Any alternatives considered; and
- Any consultation undertaken.

2. Site Description

The site is located at 1695 Hoskyns Road. The site is legally described as Lot 400 DP 528758, held in Record of Title 855915. The site has an area of 2500m². The location of the site is illustrated in Figure 2.1 below.

The site was created as part of a recent subdivision to create 42 lots (RC175578), approved on 19 February 2018. SDC worked with the applicant, Kirwee Central Properties Limited, to allocate one of the allotments as a utility lot for future water supply. The site was subsequently transferred to SDC as a Water and Utility Site (Transfer Instrument 11362175.2).



Figure 2.1: Project Site & Zoning (Source: Selwyn District Council, November 2020).

As indicated in Figure 2.1, the site is currently zoned Living 2A in the Selwyn District Plan. The zoning of the site will change to Living 1 as a result of Plan Change 60. The decision on Plan Change 60 was accepted by Council on 14 October 2020. No appeals were received on Plan Change 60 and the provisions are expected to become fully operative on 20 January 2021.

The site is not subject to any known natural hazards or other planning overlays. The site is well-positioned to supplement water supply for future development in residential-zoned land to the south and south-west.

The site has flat topography and is currently vacant. The surrounding land is also vacant at this time; however there are some new buildings being constructed within the new subdivision and the sites to the south and west are expected to be developed with residential dwellings in the immediate future.

The site will be accessible from Hoskyns Road, a low-volume local road with an Annual Average Daily Traffic volume of 133⁴. Overhead power lines traverse the northern boundary of the site.

The Listed Land Use Register indicates that the site is not a HAIL site. A Preliminary Site Investigation undertaken by Baseline Group in 2012 concluded that the site is not contaminated⁵. A Detailed Site Investigation by Tasman Environmental Limited submitted with RC175578 further confirmed that the site is highly unlikely to contain contaminated soils, and contaminated soils were not discovered during the earthworks undertaken as part of the subdivision.

There are no identified heritage, archaeological or waahi tapu sites in the vicinity.

⁴ NZ Transport Agency, One Network Road Classification GIS Maps

⁵ https://www.selwyn.govt.nz/_data/assets/pdf_file/0005/317273/Update-PC60-Appendix-4-Preliminary-Site-Investigations-20191203.pdf

3. Nature of Project

3.1 Designation

The designation will cover the entirety of the land parcel. It is intended that the designation be listed in Appendix E02 of the Selwyn District Plan as follows:

Des. No.	Authority Responsible	Site Name	Location	Legal description and Area
DXX	Selwyn District Council	Water Supply	Hoskyns Road, Kirwee	Lot 400 DP 528758 (2500m ²)

"Water Supply" is considered to be an appropriate designation purpose that aligns with the other water supply designations held by SDC.

3.2 Description of Proposed Works

The location of the site is described in Section 2. The finished contour of the site will remain flat. The proposed site layout is illustrated in Figure 3.1 below and provided as Appendix B.

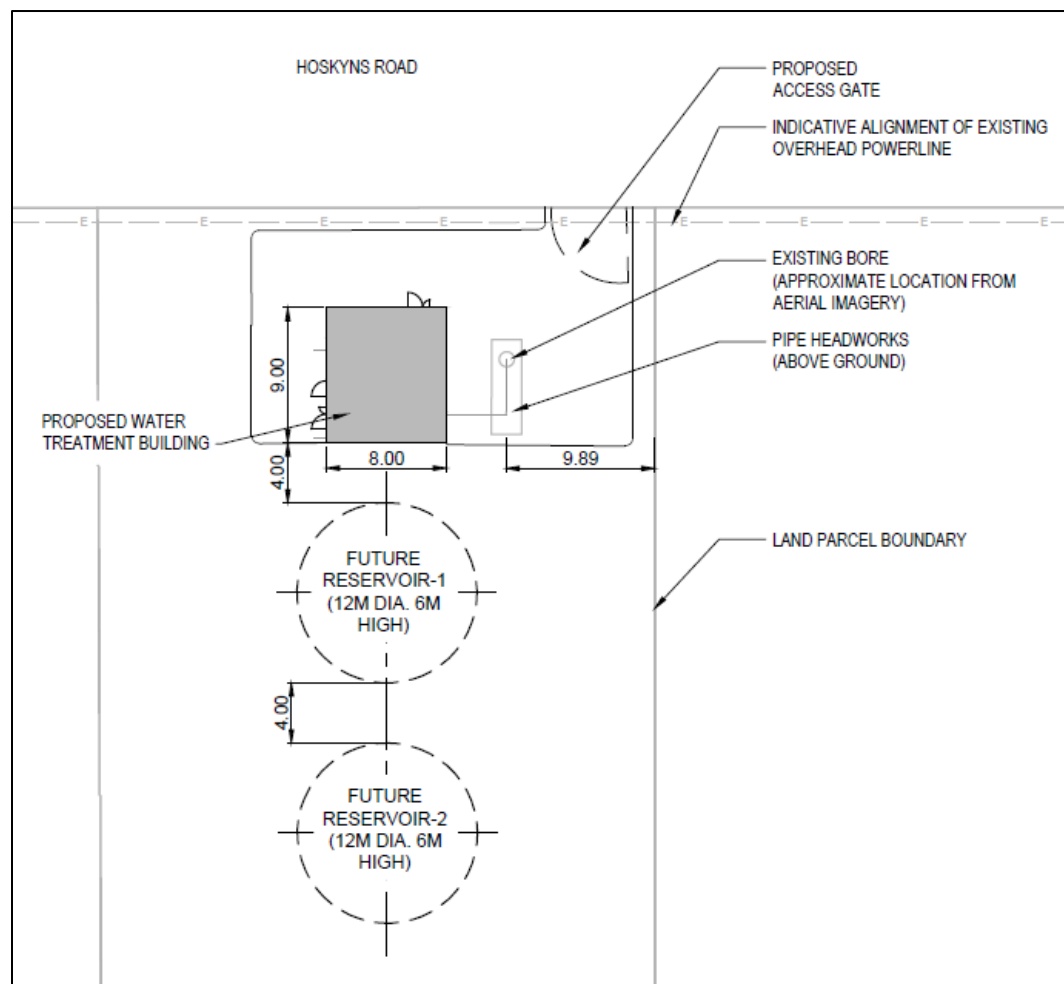


Figure 3.1: Site Layout Plan

A new well was drilled on the site at 1695 Hoskyns Road on 2 March 2020 (ECAN Identifier BX22/0199). The well has a diameter of 300mm and a depth of 227 metres.

A new water treatment plant will be installed adjacent to the well, with selective abstraction and a UV treatment unit. In the future the site will incorporate filtration infrastructure and two storage reservoirs. At this stage it is envisaged that the two storage reservoirs will be circular, with a diameter of 12 metres and a maximum height of 6 metres. They will be constructed from concrete or steel and are expected to be constructed in the next 5-10 years.

The water treatment plant building will be 72m² (9m x 8m) in area and have a maximum height of 5 metres. The building will be clad in dark corrugated iron and will resemble a residential garage. This building will house the UV treatment unit. The building is expected to be constructed within the next 2 years.

Access to the site will be obtained from Hoskyns Road. The front portion of the site will be sealed, with 150m² of space available for parking. Vehicle movements will comprise of infrequent visits from SDC staff for maintenance and monitoring. The site will not be open to the public. Due to the very low levels of traffic generation, it is not considered necessary for parking spaces to be marked.

SDC intends to incorporate landscaping onto the site at the time the water treatment plant building is constructed. Landscaping is likely to comprise of some trees and low-maintenance native shrubs planted at the boundaries, sufficient to soften and partially shield the structures from view from Hoskyns Road and adjacent residential sites.

3.3 Proposed Conditions on Designation

The following conditions on the designation are proposed by SDC:

General Accordance

1. The designation shall be implemented in general accordance with the details provided with the Notice of Requirement:

(a)

Outline Plan

2. Works undertaken in accordance with the NOR will not require an Outline Plan.

Lapse Date

3. The designation shall lapse on the expiry of 10 years from the date on which it is included in the District Plan if it has not been given effect to before the end of that period.

Landscaping

4. A landscaping plan shall be provided to [Council Manager] for certification prior to the commencement of construction of the treatment plant building. Landscaping shall be sufficient to soften and partially shield the structures on the site from view from Hoskyns Road and adjacent residential sites.

5. The planting shall be undertaken within the first planting season following the certification of the landscaping plan. Should any plants die or be destroyed, they shall be replaced with the same or similar species as soon as practicable.

4. Assessment of Effects on the Environment

A permitted baseline has been used to assist in the assessment of effects on the environment. The permitted baseline for the Living 2A/Living 1 zone is considered to comprise of:

- One dwelling and one family flat of up to 70m² in floor area;
- Buildings that have a maximum height of 8 metres and are located at least 2 metres from an internal boundary and at least 5.5 metres from the road boundary;
- Total building coverage of 40% of the site; and
- Associated traffic generation comprising of up to 18 equivalent car movements per day.

The proposed activity is considered to have similar effects to activities which are provided for as permitted activities, and in this instance it is considered that the permitted baseline can be applied to the built form associated with the proposal.

4.1 Positive Effects

Positive effects associated with the new potable water supply, treatment and storage facility include:

- Increased security of supply and redundancy to cater for increasing demand and to better manage dry and peak periods;
- Reduced risk of adverse social and economic effects on the Kirwee community through insufficient supply of potable water; and
- Enabling SDC to meet their statutory responsibilities and Level of Service targets.

4.2 Effects on Amenity Values

Amenity values means those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence and cultural and recreational attributes. In this instance, the effects on the environment that could adversely impact amenity values are visual effects, lighting and noise.

• Visual Effects

The building that houses the water treatment equipment will be 72m² in area and will have a maximum height of 5 metres. The building will be clad in dark corrugated iron and will resemble a residential garage in size and colour. The building will not appear out of place within the surrounding residential environment, particularly when considered in the context of the permitted baseline.

In accordance with Standard 4.2.1 in the Township Volume of the Selwyn District Plan, the road boundary will be landscaped with shrubs when the building is constructed. Trees and shrubs will also be planted around the internal boundaries of the site to provide a measure of screening for adjacent residential sites.

With this screening in place, any adverse visual effects are considered to be less than minor.

- **Lighting**

There will be no outdoor or flood lighting installed on the site.

- **Noise**

During the plant operation, noise omitted from the bore pump and headworks will be negligible. Upon future upgrade works, when installing the future reservoirs and surface pumps, there will be limited noise from within the WTP building, which will be kept below the limits specified in Standard 10.6.1 of the Township Volume of the Selwyn District Plan.

Overall, adverse effects on amenity values are considered to be less than minor.

4.3 Construction Effects

Earthworks associated with the construction of the structure is expected to be minimal as the site is already flat and ready for construction. Construction traffic will be similar in terms of types and volumes of vehicle movements to what would be associated with the construction of a residential dwelling, and will not require any special traffic management measures. Construction noise will comply with the limits specified in NZS 6803:1999 *Acoustics – Construction Noise*.

Overall, adverse effects on the environment associated with the construction period are considered to be less than minor.

4.4 Traffic Effects

Traffic generation from the water treatment plant is expected to be very low, with occasional visits from SDC staff for monitoring and maintenance purposes. Traffic generation will be less than what would be generated from a residential dwelling. Overall, adverse effects on the transport network from traffic generation are considered to be negligible.

4.5 Servicing

Stormwater treatment and disposal from the site and the remaining 41 allotments that made up RC175578 is currently managed under ECAN consent CRC204183⁶. Condition 5 of CRC204183 requires that stormwater is discharged to land via soak pits; however, once a Community Drinking Water Protection Zone is in place, an additional resource consent from Environment Canterbury will be required to discharge stormwater to ground within the Zone. Selwyn District Council will apply for the required resource consent/s from Environment Canterbury prior to construction, and will ensure that operational stormwater from the roof and hardstand areas is disposed of in such a way that it does not present any risk to quality of the groundwater.

The water treatment plant will not contain any toilet facilities, so a septic tank or connection to reticulated wastewater services is not required. Electricity will be provided to the treatment plant building from the existing connection within the road reserve.

Overall, adverse effects on the environment associated with servicing are likely to be less than minor and will be adequately managed through the consenting process with Environment Canterbury.

⁶ <https://www.ecan.govt.nz/data/consent-search/consentdetails/CRC204183>

5. Section 171 Considerations

5.1 Statutory Assessment - s171(1)(a)

The New Zealand Coastal Policy Statement and the National Policy Statements are not considered to be relevant to this Notice of Requirement. The project will be assessed against the National Policy Statement for Freshwater Management by Environment Canterbury as part of the processing of CRC211833. The Project is assessed against the relevant provisions of the Selwyn District Plan and the Canterbury Regional Policy Statement in section 5.1.1 and 5.1.2 below.

5.1.1 Objectives and Policies of the Selwyn District Plan

Objective/Policy	Assessment of Project
Objective B2.2.1 Access to utilities to enable people and communities to carry out their activities	The proposed water supply, treatment and storage facility will supplement the existing supply of potable water, enabling increasing demand to be met and ensuring there will be no supply interruption that could impact on the health and wellbeing of the community or preclude regular activities.
Objective B2.2.3 The provision of utilities where any adverse effects on the receiving environment and on people's health, safety and wellbeing is managed having regard to the scale, appearance, location and operational requirements of the facilities.	As assessed in section 5, the project will not adversely affect the quality of the receiving environment as the scale and height of the structure is in line with community expectations in a residential area. The noise, traffic and lighting associated with the plant will not result in adverse effects on the health, safety or wellbeing of the community.
Policy B.2.2.5 Avoid potential 'reverse sensitivity' effects of activities on the efficient development, use and maintenance of utilities	As assessed in section 5, the project will not adversely affect the quality of the receiving environment as the scale and height of the structures is in line with community expectations in a residential area. Reverse sensitivity effects have been avoided.
Policy B2.2.6 Ensure the effects of utilities are compatible with the amenity values and environmental characteristics of the zone in which they locate, also having regard to operational, functional and economic constraints.	As assessed in section 5, the project is compatible with the environmental characteristics of the residential area as the scale and height of the structure is in line with the permitted baseline and community expectations, and will be partially screened by landscaping. The noise, traffic and lighting associated with the plant will not result in adverse effects on the amenity values of the area.

5.1.2 Objectives and Policies of the Canterbury Regional Policy Statement

Objective/Policy	Assessment of Project
<p>Objective 5.2.1 - Location, Design and Function of Development Development is located and designed so that it functions in a way that:</p> <ol style="list-style-type: none"> 1. achieves consolidated, well designed and sustainable growth in and around existing urban areas as the primary focus for accommodating the region's growth; and 2. enables people and communities, including future generations, to provide for their social, economic and cultural well-being and health and safety; and which: <ol style="list-style-type: none"> a. maintains, and where appropriate, enhances the overall quality of the natural environment of the Canterbury region, including its coastal environment, outstanding natural features and landscapes, and natural values; b. provides sufficient housing choice to meet the region's housing needs; c. encourages sustainable economic development by enabling business activities in appropriate locations; d. minimises energy use and/or improves energy efficiency; e. enables rural activities that support the rural environment including primary production; f. is compatible with, and will result in the continued safe, efficient and effective use of regionally significant infrastructure; g. avoids adverse effects on significant natural and physical resources including regionally significant infrastructure, and where avoidance is impracticable, remedies or mitigates those effects on those resources and infrastructure; h. facilitates the establishment of papakāinga and marae; and i. avoids conflicts between incompatible activities. 	<p>The proposed water supply, treatment and storage facility will supplement the existing supply of potable water, increasing the security of supply and enabling the Kirwee community to provide for their social and economic wellbeing and health and safety into the future.</p> <p>The project will not adversely affect the quality of the receiving environment as the scale and height of the structures is in line with community expectations in a residential area. The noise, traffic and lighting associated with the plant will not result in adverse effects on the health, safety or wellbeing of the community.</p>
<p>Objective 5.2.2 – Integration of land-use and regionally significant infrastructure In relation to the integration of land use and regionally significant infrastructure:</p>	<p>The proposed water supply, treatment and storage facility will supplement the existing supply of potable water, increasing the security of supply and enabling the Kirwee community to provide for their social</p>

<p>1. To recognise the benefits of enabling people and communities to provide for their social, economic and cultural well-being and health and safety and to provide for infrastructure that is regionally significant to the extent that it promotes sustainable management in accordance with the RMA.</p> <p>2. To achieve patterns and sequencing of land-use with regionally significant infrastructure in the wider region so that:</p> <ul style="list-style-type: none"> a. development does not result in adverse effects on the operation, use and development of regionally significant infrastructure. b. adverse effects resulting from the development or operation of regionally significant infrastructure are avoided, remedied or mitigated as fully as practicable. c. there is increased sustainability, efficiency and liveability. 	<p>and economic wellbeing and health and safety into the future.</p> <p>As assessed in section 5, adverse effects on the environment arising from the Project will be less than minor.</p>
<p>Policy 5.3.5 - Servicing development for potable water, and sewage and stormwater disposal (Wider Region) Within the wider region, ensure development is appropriately and efficiently served for the collection, treatment, disposal or re-use of sewage and stormwater, and the provision of potable water, by:</p> <ul style="list-style-type: none"> 1. avoiding development which will not be served in a timely manner to avoid or mitigate adverse effects on the environment and human health; and 2. requiring these services to be designed, built, managed or upgraded to maximise their on-going effectiveness. 	<p>The proposed water supply, treatment and storage facility will serve the needs of the Kirwee community and enable future growth and development in the township.</p> <p>The facility has been designed to maximise its effectiveness, and will be managed and maintained by SDC in line with their responsibilities as the utility provider.</p>
<p>Policy 5.3.6 - Sewerage, stormwater and potable water infrastructure (Wider Region) Within the wider region:</p> <ul style="list-style-type: none"> 1. Avoid development which constrains the on-going ability of the existing sewerage, stormwater and potable water supply infrastructure to be developed and used. 2. Enable sewerage, stormwater and potable water infrastructure to be developed and used, provided that, as a result of its location and design: <ul style="list-style-type: none"> a. the adverse effects on significant natural and physical resources are avoided, or where this is not practicable, mitigated; and 	<p>As assessed in section 5, adverse effects on the environment arising from the Project will be less than minor. The proposed structures are in line with the permitted baseline and community expectations of a residential area. The noise, traffic and lighting associated with the plant will not result in adverse effects on the health, safety or wellbeing of the community, or the amenity values experienced in the area.</p>

<p>b. other adverse effects on the environment are appropriately controlled.</p> <p>3. Discourage sewerage, stormwater and potable water supply infrastructure which will promote development in locations which do not meet Policy 5.3.1.</p>	
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5.2 Consideration of Alternatives – Section 171(1)(b)

Section 171(1)(b) requires the Selwyn District Council, when considering this Notice of Requirement, to have particular regard to whether adequate consideration has been given to alternative sites, routes or methods of undertaking the work if:

- (i) The requiring authority does not have an interest in the land sufficient for undertaking the work; or
- (ii) It is likely that the work will have a significant adverse effect on the environment.

Selwyn District Council owns the land and therefore have an interest sufficient for undertaking the work. In addition, the Assessment of Effects on the Environment in Section 4 demonstrates that the work will not have a significant adverse effect on the environment.

In terms of the method of supply, a bore to access groundwater is considered to be the best practicable option in terms of security of supply. The possible alternative methods are rainwater collection or abstraction from a surface water body, as addressed below:

- The only surface waterbodies in the vicinity of Kirwee are water races to supply irrigation and water for stock. This water source is not suitable for human consumption. It would not be practicable to take surface water from the races, especially during the summer months when it is relied upon by farmers. Such an abstraction would be likely to interfere with the continuity of supply in the races and could result in more significant adverse effects on the environment.
- SDC encourages the collection of rainwater and other water demand management initiatives such as the use of greywater for non-potable use; however, even with these management initiatives in place, the expected population growth is such that a new supply of potable water and additional storage capacity is the only solution to meet that demand.

5.3 Is the Project Reasonably Necessary – Section 171(1)(c)

Due to population growth and increasing demand for potable water outlined in Section 1, a new well is required to supply potable water for Kirwee. If increased demand cannot be accommodated, then a decline in level of service will be experienced, resulting in unacceptable risks to the health and wellbeing of the Kirwee community.

This project is necessary to address the very high risk of supply interruption, and to enable SDC to fulfil its statutory responsibility to supply sufficient potable water to the Kirwee community and meet the Level of Service targets outlined in Section 1.1.4.

5.4 Other Matters – Section 171(1)(d)

5.4.1 Objectives and Policies of the Mahaanui Iwi Management Plan

The Mahaanui Iwi Management Plan 2013 is the key document that outlines the aspirations, objectives and policies of mana whenua with respect to the management of freshwater resources in the Canterbury region. The most relevant objectives and policies of the Mahaanui Iwi Management Plan are assessed against the project below.

Wai Māori Ngā Patae Objectives	Assessment of Project
(1) Water management effectively provides for the taonga status of water, the Treaty partner status of Ngāi Tahu, the importance of water to cultural well-being, and the specific rights and interests of tāngata whenua in water.	The project is not inconsistent with these Objectives. The facility will assist the Council in providing potable water to the community, and the takes will be managed in accordance with the appropriate resource consents from Environment Canterbury.
(2) Water quality and quantity in groundwater and surface water resources in the takiwā enables customary use <i>mō tātou, ā, mō kā uri ā muri ake nei</i> .	
(3) Water and land are managed as interrelated resources embracing the practice of Ki Uta Ki Tai, which recognises the connection between land, groundwater, surface water and coastal waters.	
Ngā Kaupapa / Policy	Assessment of Project
WM1.1 Ngāi Tahu, as tāngata whenua, have specific rights and interests in how freshwater resources should be managed and utilised in the takiwā.	<p>The Requiring Authority recognises the rights and interests of tangata whenua in relation to fresh water. Notably, for this project, consent is not sought to increase the amount of groundwater that SDC is permitted to take from the aquifer for the purposes of community drinking water, but provides additional storage capacity and redundancy to better manage water supply in dry periods.</p> <p>No additional cultural concerns are considered to arise from this proposal given it does not involve taking additional water.</p> <p>Cultural values of water will be addressed as part of the relevant consents made to Environment Canterbury. This Notice of Requirement is concerned with the use of the site for the physical infrastructure, and does not give rise to any adverse effects on cultural values.</p>

	Overall, therefore, the project is considered to be consistent with the provisions of the Mahaanui Iwi Management Plan.
<p>WM9.3 To support in principle the storage of water through local and regional infrastructure development, provided that:</p> <ul style="list-style-type: none"> (a) Land use or land use change enabled by the provision of water is managed to avoid compromising cultural and environmental values, including water quality. (b) The location of storage does not compromise places or sites with outstanding cultural characteristics and values; (c) Storage will relieve pressure on groundwater resources; (d) Water is harvested on the receding flows of floods and freshes; (e) The role of floods and freshes in channel formation and the maintenance of river processes and health is not compromised; and (f) There is a robust and critical assessment of effects on Ngāi Tahu values (see Policies WM9.4 and WM9.5). 	<p>The site is not located in the vicinity of any waahi tapu, archaeological sites or other taonga. The Project does not increase the amount of groundwater that SDC is permitted to take from the aquifer for the purposes of community drinking water, but provides additional storage capacity and redundancy to better manage water supply in dry periods.</p>

5.5 Part 2 – Purpose and Principles

Pursuant to section 171(1) RMA, the consideration of the matters assessed in the previous sections is subject to the overarching framework of Part 2. The Project is assessed against the provisions of Part 2 RMA in the sections below.

5.5.1 Section 5

The RMA has a single overarching purpose: to promote the sustainable management of natural and physical resources. Sustainable management is defined in section 5 as:

...managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –

- (a) *Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*

- (b) *Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
- (c) *Avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

The Project is considered to be consistent with the purpose of the RMA because the provision of additional infrastructure for the supply, treatment and storage of potable water in Kirwee will enable the Kirwee community to provide for their social, economic and cultural wellbeing and health and safety into the future. The Project does not increase the amount of groundwater that SDC is permitted to take from the aquifer for the purposes of community drinking water, but provides additional storage capacity and redundancy to better manage water supply in dry periods. Adverse effects associated with the Project on the amenity values and health and safety of the surrounding community are considered to be less than minor and consistent with permitted development in a residential area.

5.5.2 Section 6

In achieving the purpose of the RMA, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the matters of national importance as set out in Section 6 of the Act. The only relevant matter of national importance that applies to this notice is:

- (e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.*

The site is not located in the vicinity of any waahi tapu, archaeological sites or other taonga; however, mana whenua have a significant interest in the use of all freshwater resources including groundwater. The Project does not increase the amount of groundwater that SDC is permitted to take from the aquifer for the purposes of community drinking water, but provides additional storage capacity and redundancy to better manage water supply in dry periods. Given that no additional effects arise on the water resource as a result of this proposal, the proposal is not inconsistent with section 6 of the Act.

5.5.3 Section 7

Section 7 sets out other matters that persons exercising functions and powers under the RMA shall have particular regard to when managing the use, development and protection of natural and physical resources. The relevant other matters that apply to this notice are:

- (a) kaitiakitanga:*
- (aa) the ethic of stewardship:*
- (b) the efficient use and development of natural and physical resources:*
- (c) the maintenance and enhancement of amenity values:*
- (f) maintenance and enhancement of the quality of the environment:*
- (i) the effects of climate change.*

Selwyn District Council recognises its role as a steward of the community and of the potable water supplies within the District. SDC intends to designate the site to signal its long-term commitment to the maintenance of a secure water supply.

The site selected is considered to be in an appropriate location to efficiently supplement the supply of potable water to future development areas within Kirwee.

As assessed in Section 4, the quality of the environment and the amenity values experienced at adjacent sites will not be adversely affected by the Project.

Higher temperatures and higher evapotranspiration influenced by climate change is expected to increase the peak water demand by 1-2%, and result in an increased frequency of low groundwater levels⁷. The proposed facility, with a deep bore that goes to 227m below ground level and additional storage, will increase the resilience of the township to these effects and enable SDC to cater for the projected increase in peak demand.

5.5.4 Section 8

All persons exercising functions and duties under the RMA are required to take the principles of the Treaty of Waitangi into account when managing the use, development, and protection of natural and physical resources. The Notice of Requirement is for a facility that forms a part of the Council's wider responsibilities to manage the supply of potable water within the District. The Council's responsibilities in relation to tangata whenua values have been considered as part of formulation of the various statutory plans and strategies for its water infrastructure. The proposal to designate the site for water supply purposes is not inconsistent with the requirements of section 8 of the Act.

⁷ https://www.watarnz.org.nz/Attachment?Action=Download&Attachment_id=2873

6. Consultation Undertaken

Environment Canterbury is processing the resource consent application CRC211833 to take and use groundwater for a community drinking water supply. The owners of adjacent properties that will be affected by the proposed Community Drinking Water Protection Zone will have the opportunity to comment on the proposal in line with Environment Canterbury's processes.

No other parties have been engaged with in respect of this Notice of Requirement as it is considered that the land use aspects have minimal adverse effects.

7. Notification Assessment

Section 169(b) of the RMA specifies that a territorial authority must decide whether to notify the notice under sections 149ZCB(1) to (4), 149CC91) to (4), 149ZCE and 149ZCF which apply with all necessary modifications and as if-

- (i) a reference to an application or notice were a reference to the notice of requirement; and
- (ii) a reference to an applicant were a reference to the requiring authority; and
- (ii) a reference to the Minister or the EPA were a reference to the territorial authority; and
- (iv) a reference to an activity were a reference to the designation.

7.1 Public Notification (s149ZCB)

Section 149ZCB specifies the criteria for public notification of a notice of requirement. The sections below assess the application in relation to those criteria.

Public notification required (s149ZCB(2))

The application does not meet the criteria set out in subsection (2) for the following reasons:

- The activity will not have, or is not likely to have, adverse effects on the environment that are more than minor, as assessed in Section 5 of this report;
- The Selwyn District Council has not requested public notification of the notice; and
- The application is not subject to a rule or national environmental standard that requires public notification of the notice.

Public notification precluded (s149ZCB(3))

The application does not meet the criteria set out in subsection (3) for the following reasons:

- The application is not subject to a rule or national environmental standard that precludes public notification of the notice; and
- The Selwyn District Council has not requested public notification of the notice.

Special circumstances (s149ZCB(4))

'Special circumstances' are not defined in the Act. Case law has identified 'special circumstances' as something outside the common run of things which is exceptional, abnormal or unusual but less than extraordinary or unique. A 'special circumstance' would be one which makes notification desirable despite the general provisions excluding the need for notification. The local authority should be satisfied that public notification may elicit additional information on aspects of the proposal.

It is considered that no special circumstances exist in relation to the Notice of Requirement that could warrant the notice being publicly notified for the following reasons:

- The proposal is small in scale and will not result in any adverse effects on amenity values or the health and safety of the surrounding area and community that are minor or more than minor.
- The Selwyn District Council is not aware of any significant public interest in the project.

It is considered that public notification of this Notice of Requirement is not required.

7.2 Limited Notification (s149ZCC)

Section 149ZCC specifies the criteria for limited notification of a notice of requirement.

- There are no customary rights groups or customary marine title groups affected by the notice; and
- There are/are no affected persons under section 149ZCF; and
- The application is not subject to any rule or national environmental standard that precludes limited notification.

It is considered that limited notification of this Notice of Requirement is not required and the notice can be processed on a non-notified basis.

8. Conclusion

Selwyn District Council proposes to establish a water supply, treatment and storage facility on Lot 400 DP 528758 (1695 Hoskyns Road, Kirwee). The development will comprise of one shed and two storage reservoirs, with an associated hardstand area.

Positive effects associated with the new potable water supply, treatment and storage facility include:

- Increased security of supply and redundancy to cater for increasing demand and to better manage dry and peak periods;
- Reduced risk of adverse social and economic effects on the Kirwee community through insufficient supply of potable water; and
- Enabling SDC to meet their statutory responsibilities and Level of Service targets.

The facility will not result in adverse effects on the amenity values of the surrounding environment that exceed the effects associated with permitted development in residential areas. Landscaping will be established to provide screening for the proposed reservoirs. Overall, adverse effects on the environment are considered to be less than minor.

SDC requests that the Notice of Requirement be confirmed without modification pursuant to section 171(2)(a) of the RMA. SDC considers that that this Notice of Requirement provides sufficient detail to satisfy the information requirements expected in section 176A(2)(b) of the RMA relating to Outline Plans of Work for projects associated with designations. Therefore it is considered that a separate Outline Plan is not required.

Appendix A: Record of Title



**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Search Copy**




R.W. Muir
Registrar-General
of Land

Identifier **855915**
Land Registration District **Canterbury**
Date Issued 20 February 2019

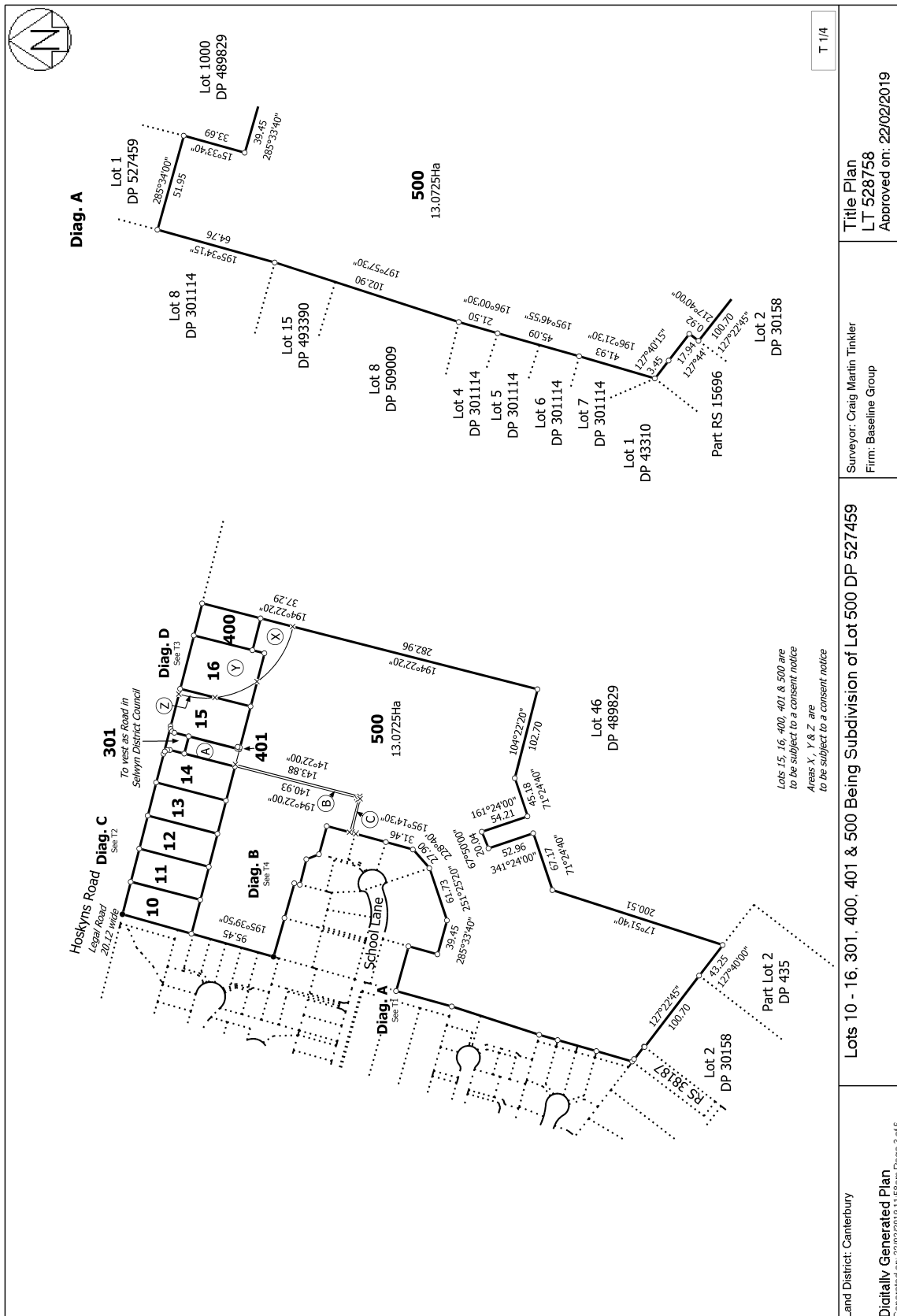
Prior References
849924

Estate Fee Simple
Area 2500 square metres more or less
Legal Description Lot 400 Deposited Plan 528758
Purpose Water and Utility site

Registered Owners
Selwyn District Council

Interests

10637735.8 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 28.11.2016 at 10:14 am
Land Covenant in Easement Instrument 10637735.13 - 28.11.2016 at 10:14 am (Limited as to duration)
11088507.1 Variation of the conditions of the land covenant created by Easement Instrument 10637735.13 - 17.8.2018 at 11:54 am
Land Covenant in Easement Instrument 11146468.1 - 7.9.2018 at 4:49 pm
11319480.1 Revocation of Land Covenant 10637735.13 as to Lots 1-9 and 45 DP 527459 - 14.12.2018 at 12:40 pm
11337503.3 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 20.2.2019 at 2:59 pm
11337503.5 Revocation of Land Covenant 10637735.13 as to Lot 500 DP 528758 - 20.2.2019 at 2:59 pm
11337503.6 Revocation of Land Covenant 10637735.13 as to Lot 401 DP 528758 - 20.2.2019 at 2:59 pm



Appendix B: Site Plan

[illegible]

Level 2, Wynn Williams Building
47 Hereford Street
CHRISTCHURCH CENTRAL 8013
NEW ZEALAND

Tel: +64 3 940 4900
Fax: +64 3 940 4901
Web: www.jacobs.com

CLIENT SELWYN DISTRICT COUNCIL				TITLE KIRWEE WATER TREATMENT PLANT SITE MASTERPLAN			
PROJECT WATER TREATMENT PLANTS							
DRAWN N.RAWAT		DRAWING CHECK P. HATKHAMBIKAR		REVIEWED		APPROVED	
DESIGNED G. LAWRENCE		DESIGN REVIEW		DATE		DATE	
				SCALE 1:250		DRAWING No IA241600-0005-GN-DRG-0001	
						REV P	