

# RESOURCE CONSENT APPLICATION

U150493

# Sharyn Elizabeth and Craig Stewart Marfell

2533 State Highway 63, Wairau Valley

Submissions Close 5.00 pm Friday 17 July 2015



# **Resource Consent Application**

This application is made under Section 88 of the Resource Management Act 1991

Please read and complete this form thoroughly and provide all details relevant to your proposal. Feel free to discuss any aspect of your proposal, the words used in this form or the application process with Council staff, who are here to help.

This application will be checked before formal acceptance. If further information is required, you will be notified accordingly. When this information is supplied, the application will be formally received and processed further.

You may apply for more than one consent that is needed for the same activity on the same form.

For Office Use	ISO 9001:2008 Document Number: RAF0002-Cl1248
Lodgement Fee Paid \$	
Receipt No.	
Consent No.	
Case Officer:	

OIIII.					Case Officer:	
)	Applicant det	ails (If a trust, list full names of a	all trustees.)			
	Name:	Craig Stewart and Shary	n Elizabeth I	MARFELL		
	Mailing address:	`Anthony Downs', 2533	State Highw	ay 63, RD 1, Blenheim	727	
	Email Address:	c.marfell@slingshot.co.n	Z			
	Phone: (Daytime)	03 5729499	Phone:	(Mobile) <i>0276285809</i>	Fax:	
2.	Agent Details	(If different from above or if you	r agent is dealing	g with the application.)		
	Name:	WilkesRM				
	Mailing address:	Temple Chambers				
		76 High Street				
		Blenheim 7201				
)		Attn: Mrs Catherine Ham	nmond			
	Email Address:	cath@wilkesrm.co.nz				
	Phone: (Daytime)	03 578 5339 ext 722	Phone: (M	1obile) 0274 281 847	Fax:	
3.	Type of Resou	urce Consent Applie	d for			
	Coastal Permi	it Discharge I	Permit	Land Use	Subdivision	X Water Permit
1.	Brief Descripti	on of the Activity			ī	Date Received

This is an application to abstract and use underground water. This application is a replacement of resource consent U040444 prior to it expiring on 1 December 2015.

5.	Property Details
	The location to which the application relates is (address): 2533 State Highway 63, Wairau Valley
	Legal description (i.e. Lot 1 DP 1234): Lot 2 DP 10346; and Section 25 Blk I Avon SD
	(Attach a sketch of the locality and activity points. Describe the location in a manner which will allow it to be readily identified e.g. house number and street address, Grid Reference, the name of any relevant stream, river, or other water body to which application may relate, proximity to any well known landmark, DP number, Valuation Number, Property Number.)  (Please attach a copy of the Certificate of Title.)
	The names and addresses of the owner and occupier of the land (other than the applicant):
	Please attach the written approval of affected parties/adjoining property owners and occupiers.
	Note: That as a matter of good practice and courtesy you should consult your neighbours about your proposal. If you have not consulted your neighbours, please give brief reasons on a separate sheet why you have not.
6.	Assessment of Effects on the Environment (AEE) (Attach separate sheet detailing AEE.)
	I attach, in accordance with the Fourth Schedule of the Resource Management Act 1991, an assessment of environmental effects in the detail that corresponds with the scale and significance of the effects that the proposed activity may have on the environment.
	Note: Failure to submit an AEE will result in return of this application.
7.	Other Information
	Are additional resource consents required in relation to this proposal? If so, please list and indicate if they have been obtained or applied for.
	I attach any other information required to be included in the application by the relevant Resource Management Plan, Act or regulations.
	Declaration
Ι (	please print name) Catherine Hammond agree
(iv)	That the applicant is liable for all fees and charges relating to this application.  The lodgement fee is to be paid at the time of lodging the application for resource consent.  That payment is due within 30 days of the issue date of any additional charges.  That Council will charge the applicant interest on any overdue invoices at 15% per annum from the date of issue of the invoice to the date of payment and Council may stop processing this application until an overdue invoice is paid in full. In the event of non-payment the applicant will be liable for all legal and other costs of recovery.  That where this application is completed and signed by an agent, all communication regarding this application will be with the agent. The information provided in this application and the attachments to it are accurate.
	c Hammond
Signa	ature of <del>applicant or</del> authorised agent Date 05/06/2015
The in	acy Information information you have provided on this form is required so that your application can be processed and so that statistics can be collected by acil. The information will be stored on a public register and held by Council. Details may be made available to the public about ents that have been applied for and issued by Council. If you would like access to or make corrections to your details, please contact acil.

Applicants Name: Craig Stewart & Sharyn Elizabeth MARFELL



# **INFORMATION TO SUPPORT AN APPLICATION** for Water Permits (mandatory information)

This additional application form is required to be provided to supplement the Application For A Resource Consent. It is recommended you read the Council's brochures *Guidelines for Applying for a Resource Consent* and *Guidelines for Applying for a Water Permit*.

This form does not include any information necessary to support a Land Use Consent application that may also be required in association with your water permit – e.g. construction of a bore, intake structure, dam etc. Further information on these activities is available in the Council's brochure *Guidelines for Applying for a Land Use Consent*.

Please complete all sections that apply.

2.

3.

4.

GEN	NERAL:						
1.	Type of permit required:						
	Take surface water		Dam water				
	Take underground water	✓	Divert water				
2.	Do you currently hold a water	permit that is due	to expire? Yes <del>/ No</del>				
	If yes, please state the water p	permit number: <i>U04</i>	10444				
3.	Purpose for which water is rec	Purpose for which water is required?					
	Crop and pasture irrigation	(Industrial, crop irrigation					
4.	Source of water: Wairau aquif						
5.	Maximum quantity of take	52.9litres	per second				
	45	560cubic me	tres per day				
		cubic metres p	er week				
GRO	DUNDWATER:						
1.	Well number (if existing well): 02	28/0004					

Depth from ground level to bottom of well: 13.7 metres

If yes, please attach results: See U040444 application.

Has a pump test or well interference test been carried out on the well? Yes / No

Diameter of well 300 millimetres

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#### **CONSUMPTION SCHEDULE**

If temporary, give duration details .....

		CRC	OP A			CRO	OP B			CRC	)P C			тот	ALS	
CROP TYPE e.g. corn, olives, etc		Food	crops			Pas	ture									
AREA Number of hectares								Up t	o 80							
APPLICATION RATE (m³ / ha / day)		Up t	to 57		Up to 50											
QUANTITY Cubic metres per day		Up to	4560									Up to	4560			
IRRIGATION	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	Jan	Feb	Mar	Apr	Jan	Feb	Mar	Apr
PERIOD Circle months	May	Jun	Jul	Aug	May	Jun	Jul	Aug	May	Jun	Jul	Aug	May	Jun	Jul	Aug
which apply	<u>Sep</u>	<u>Oct</u>	Nov	<u>Dec</u>	<u>Sep</u>	<u>Oct</u>	Nov	<u>Dec</u>	Sep	Oct	Nov	Dec	Sep	Oct	Nov	Dec
METHOD Spray Spray Trickle, spray, etc																

3.



# Craig Stewart & Sharyn Elizabeth MARFELL

**Application for Resource Consent** 

Water Permit – Take and
 Use Underground Water

Final

May 2015

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#### 1 Introduction

The applicants are Craig Stewart and Sharyn Elizabeth MARFELL (the Marfells).

The Marfells own a farm named Anthony Downs located in the Wairau Valley to the south of State Highway 63 and extends into hill country.

The property details this application relates to are as follows:

Section 25 Blk I Avon SD (Anthony Downs) approximately 1048 hectares (ha)

Lot 2 DP 10346 abstraction site well O28/0004

Irrigation water for flat land on the upper of the Wairau River terraces for the Anthony Downs farm is sourced from well O28w/0004 located to the north of State Highway 63 on land (Lot 2 DP 10346) owned by Delegat Limited. An easement to this site is present on the property.

The applicants hold resource consent U040444. That resource consent provides for:

• The abstraction of underground water from well O28w/0004 for the irrigation of 80 ha of crops and pasture at a rate of 52.9 l/s and not exceeding 4571 m<sup>3</sup>/day, on Section 25 Blk I Avon SD.

Telemetered data demonstrates that usage is up to about 3500m<sup>3</sup>/day. This is due to the size of the current pump which does not allow the full daily allocation to be pumped. The applicants are looking into larger pumps to meet their allocation requirements.

Condition 5 of U040444 required the Marfells to contribute to a monitoring weir. That weir was to be installed and maintained by the Marlborough District Council. To the applicant's knowledge the monitoring weir has not been installed.

Water permit U040444 is due to expire on 1 December 2015.

The applicant is seeking a new water permit to replace U040444 to enable the continued ability to irrigate their land.

Immediately following the grant of this application for resource consent, the applicant's water permit U040444 will be surrendered.

This report provides an assessment of effects on the environment in accordance with the Fourth Schedule of the Resource Management Act 1991 (RMA) for the following activities:

- Water Permit Take Underground Water
- Water Permit Use Underground Water

Attached to this application are the following:

- Appendix 1 Location Plan;
- Appendix 2 Detailed Site Plan;
- Appendix 3 Certificates of Title.

# 2 The Proposal

Craig Stewart and Sharyn Elizabeth Marfell are seeking resource consent for the following specific activities:

- Water Permit Take Underground Water
  - $\circ$  To take underground water from an existing well O28w/0004 located on Lot 2 DP 10346 up to a maximum rate of 4560 m<sup>3</sup>/day.
- Water Permit Use Water
  - To use underground water for the irrigation of up to 80 ha of crops and pasture on Section 25 Blk I Avon Survey District.

It is proposed to irrigate at maximum irrigation application rates as per the Wairau Awatere Resource Management Plan guidelines of  $50 \text{ m}^3/\text{ha/day}$  for pasture and  $57 \text{ m}^3/\text{ha/day}$  process crops such as peas, corn etc.

Water meter 1364 is installed at the well and has been verified with Council holding that record.

# 3 The Existing Environment

The Marfells operate a mixed farm at Anthony Downs on State Highway 63, Wairau Valley.

The property lies to the south of State Highway 63 and extends into the hill country.

The focus of this application is the 80ha of flat land on the upper of the Wairau River terraces (refer to the Detailed Site Plan contained in Appendix 2).

The Marfells irrigation well is located to the north of State Highway 63 and to the east of Church Lane on land owned by Delegat Ltd. An easement to this site, and also to a well that supplies household and stock water to the applicant, and a further well nearby that provides water for similar purposes to other adjoining landowners on Church Lane are also present on the property.

The applicant's property is used for grazing sheep and cattle, growing field crops, pasture and making hay.

A number of spring fed streams traverse through the properties before eventually flowing into the Wairau River.

The Wairau River is approximately 670 metres to the north from well O28w/0004.

## 4 Statutory Framework

#### 4.1 The Resource Management Act 1991

Section 14 of the RMA requires that no person may take, use or divert water unless expressly allowed by a rule in a regional plan, and in any relevant proposed regional plan or a resource consent.

#### 4.2 The Wairau Awatere Resource Management Plan

The subject site is zoned Rural 4 under the Wairau Awatere Resource Management Plan (the Plan).

Chapter 27 of the Plan contains the relevant rule as follows:

General Rule 27.1.2.4 provides for the abstraction of greater than 500m<sup>3</sup>/day/site from the Wairau Aquifer as a **non-complying** activity.

There are no rules for the use of water in the Plan for irrigation purposes, therefore the activity is considered in-nominate under the RMA, and is considered a **discretionary** activity.

#### 5 Consultation and Notification

No consultation has been undertaken as it is understood that MDC is likely to publicly notify this application.

#### 6 Assessment of Effects

#### 6.1 Potential Effects on the Wairau River

The continuation of this long-standing water permit will not result in adverse effects on the environment, particularly since no additional quantity of water is being applied for from that authorised under the current permit.

There have been no adverse environmental effects from the applicant's current take and use of water authorised via Water Permit U040444.

The water allocation regime contained within the Plan has been established to "provide for the taking, use, damming and diversion of fresh water in a manner which safeguards the life supporting capacity of the resource and avoids remedies or mitigates any adverse effects on the environment". Therefore, if any resource consent application to abstract water is consistent with this regime then the abstraction will not lead to the occurrence of adverse effects on the environment and will ensure that the life supporting capacity of the Wairau River is safeguarded.

This application is entirely consistent with the water allocation regime for the Wairau River as contained in the Plan and has been assessed as having no more than minor environmental effects on the Wairau Aquifer or its environs via virtue of resource consent U040444 being granted.

This proposal seeks to abstract water that is available to be allocated and in a manner consistent with the Plans allocation framework. The proposal is therefore not considered to lead to the occurrence of adverse effects on the environment and will ensure that the life supporting capacity of the Wairau River is safeguarded.

The proposed abstraction will not cause the Wairau River to flow any lower than it has previously, because the abstraction will cease prior to these lowest flows being reached.

The applicant's telemetry water meter will provide accurate records from the beginning of a new consent period based on actual operational requirements.

#### 6.1 Potential Effects on Other Users

As stated, this proposal is consistent with the water allocation regime as contained within the Plan. In the development of this water allocation regime the effects of water abstractions on existing water users was considered. As this proposal is consistent with this water allocation regime it cannot affect existing Wairau River users.

Other users will not be adversely affected as the amount of water proposed to be abstracted is slightly less than currently consented under U040444.

There are no records of any complaints about the abstraction under the applicants current water permit.

It is believed that the imposition of low flow triggers should be sufficient to ensure that no adverse effects on other Wairau River water uses will arise.

#### 6.2 The Efficient Use of Water

It is proposed to irrigate in accordance with MDC's irrigation application rate guidelines. These application rates represent an efficient use of the water resource.

Irrigation is only undertaken when required. Any irrigation undertaken is done so due to a need and to maximise the efficiency of the irrigation and the financial cost of doing so.

#### 6.3 Effects on Nearby Surface Water Bodies

Evidence obtained by the Marfells to support their water permit U040444 include a stream depletion effects assessment by Pattle Delamore Partners Ltd (PDP). Copies of the above

results can be found on Council's records under Resource Consent U040444, http://www.marlborough.govt.nz/services/property-file-search.

In granting U040444, Council's Planning Officer concluded the following:

"After discussion between the applicant and Council regarding the depletion effect on Walkers stream, the Council hydrologist decided that there were large gaps on information about the effects of takes of this kind, and that if the consent was granted, a continuous flow monitoring site should be installed in the tributary to Walkers Stream to monitor the effects of the take on surface water flows. With this information being reported periodically, this will provide a constant assessment of the situation here, and the ability of Council to respond should adverse effects become apparent."

To the applicant's knowledge, the Marlborough District Council has not installed a monitoring site and therefore no assessment of the situation can be determined.

It is suggested that the monitoring site is established and maintained by the Marlborough District Council to monitor the effects of the take on surface water flows.

#### 6.4 Any Alternative Locations or Methods

No alternative locations or methods have been considered as the applicant believes the activity proposed would give the best result in terms of efficiency of use while ensuring environmental effects are no more than minor.

#### 6.5 Any Other Potential Effect

The proposal is not anticipated to have any adverse effects on those in the neighbourhood or wider community (including any socio-economic or cultural effects) as the proposed take is a long standing activity and the use of water for irrigation is proposed to be in accordance with Council's irrigation application rate guidelines.

The proposal is not anticipated to have any adverse landscape or visual effects as the vineyard and irrigation infrastructure are already in place and that the taking and use of water is a common occurrence in rural Marlborough, including the area of the Wairau Valley where the Marfell's farm is situated.

The proposal seeks the re-consenting of existing activities. To the applicants knowledge there has been no adverse recreational, scientific, historical, spiritual or cultural effects resulting from the exercise of their current resource consent.

As shown in the attached certificate of title there are no constraints that seek to limit the activities proposed.

There are no known / recorded archaeological or recognised customary activities associated with the subject site. Consequently it is considered that the proposed activities will not lead to the occurrence of adverse effects on cultural or historic values.

To the applicants knowledge there has been no adverse cultural effects resulting from the exercise of developing the subject land into broad acre crops and the taking of underground water for irrigation.

There are no other potential effects anticipated.

## 7 Summary of Mitigation Measures

The mitigation measures in relation to this application to ensure the environmental effects are not more than minor, as discussed above, are summarised as follows:

- Telemetered water meter at the intake site will measure the proposal abstraction;
- That the abstraction of water shall only occur between 1 September and the following 30 April;
- The abstraction will be subject to the low flow restrictions for B Class Wairau River water. These restrictions have been designed to protect the instream flora and fauna;
- Irrigation is only undertaken when required.

#### 8 Other Matters

#### 8.1 The National Policy Statement for Freshwater Management

The National Policy Statement for Freshwater Management (NPSFW) sets out objectives and policies that direct local government to manage water in an integrated and sustainable way, while providing for economic growth within set water quantity and quality limits.

Amongst other matters the NPSFW requires that all Regional Councils ensure that the allocation of water resources above a pre-determined sustainable maximum volume does not occur and if any such 'over-allocation' exists then the Regional Council must undertake steps to reduce the over-allocation.

The Wairau River has a formal allocation regime. As this is to 'renew' an existing consent, seeking the same volume of water already allocated, this proposal is consistent with the Plans requirements. Consequently the proposal is considered consistent with the NPSFW.

#### 8.2 Resource Management Act 1991

Part 2 of the RMA sets out its purpose and principles on which the RMA is founded and from which all other associated statutory framework is derived. The purpose of the RMA is to promote the sustainable management of natural and physical resources. The RPS and the Plan have been developed under the RMA and are generally considered to be the local implementation of the purpose and principles.

#### 8.2.1 Section 6 Matters of National Importance

Matters of national importance are considered with relevance to this application:

a) The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development.

The natural character of Wairau River will be maintained.

b) The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development.

There are no outstanding natural features at risk from this proposal.

c) The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.

There are no such areas at risk from this proposal.

d) The maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers.

There is no effect on the current nature or location of public access as a result of the current or proposed take and use of water.

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

The proposal does not exclude Maori from the use of the Wairau River resource.

f) The protection of historic heritage from inappropriate subdivision, use, and development.

There are no known historic sites relevant to this proposal.

g) The protection of recognised customary activities.

There are no known recognised customary activities relevant to this proposal.

#### 8.2.2 Section 7 Other Matters

Section 7 of the Act sets out other matters that Council is to have particular regard to in achieving the purpose of the Act. The matters of relevance to this application are outlined below:

Section 7(b) the efficient use and development of natural and physical resources

Section 7(c) the maintenance and enhancement of amenity values

This application is an efficient use of natural and physical resources. No adverse effects on amenity values are anticipated.

#### 8.2.3 Section 8 Treaty of Waitangi

The application is consistent with the RMA planning framework and is therefore considered consistent with Section 8 in terms of Treaty of Waitangi considerations.

Based on the above assessment, it is considered that the proposal will meet the purpose and principles of the Act.

#### 8.2.4 Section 104D – Non-Complying Activities

Section 104D of the RMA sets out particular restrictions for non-complying activities. In respect of these restrictions, this proposal will not be contrary to the objectives and policies of the Plan. Consequently, the application passes at least one of the required 'gateway' tests and can be considered and determined by Council in accordance with Section 104 of the RMA.

#### 8.3 Section 104(2A)

Section 104(2A) of the RMA requires that a Consent Authority, when considering an application affected by Section 124<sup>1</sup>, must have regard to the value of investment of the existing Consent Holder.

The value of the investment the applicants have put into improving the productivity of their rural land includes irrigation infrastructure assets and systems such as irrigators, pipe networks and pumps.

The applicant has invested in a pivot which in addition to the pumping costs required to run the pivot equate to approximately \$7,500 / ha. Approximately 80 ha of pasture/cropping land has been established which is irrigated by the pivot which equates to a cost of approximately \$637,500 the applicant has invested into crop and pasture irrigation.

Returns are in the order of \$2200 tonne/ha for a cash crop such as corn or \$1600 tonne/ ha for a pasture crop such as barley (figures are gross, before costs).

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<sup>&</sup>lt;sup>1</sup> Section 124 of the RMA relates to applications for resource consent that seek the 're-issue' or 'renewel' of an existing resource consent that is due to expire.

#### 8.4 Marlborough Regional Policy Statement

The RPS and the Plan have been developed under the RMA and are generally considered to be the local implementation of the purpose and principles.

Those provisions of the Regional Policy Statement (RPS) that are the most applicable to this proposal include:

Objective 5.1.10 – Freshwater Habitat – The integrity of freshwater habitats and natural species diversity be maintained or enhanced.

The natural character of the Wairau River is maintained under the water allocation regime which this application falls under.

The integrity of the freshwater habitat is therefore considered as not being adversely affected by the proposal. The proposal is therefore consistent with this objective.

Section 7 – Community Wellbeing of the Regional Policy Statement includes the following objective and policies.

Objective 7.1.9 – Provision for Activities - To enable present and future generations to provide for their wellbeing by allowing use, development and protection of resources provided any adverse effects of activities are avoided, remedied or mitigated.

Objective 7.2.2 – Sustainable Management of Water - Enable the sustainable management of surface water and groundwater.

Policy 7.2.3 – Allocation of Water

- (a) Establish mechanisms for the allocation of surface water and groundwater from the Wairau, Awatere, Clarence and Pelorus/Kaituna catchments.
- (b) Include the following principles into water allocation mechanisms:

- sustainable management;
- equitable allocation;
- avoid, remedy or mitigate adverse effects;
- minimise conflicts between users; and
- ensure efficient and beneficial use.

This application seeks to abstract and use water in manner consistent with these objectives and policies and the volumes sought for abstraction are in within the MDC guidelines / mechanisms for water allocation and will not result in the occurrence of adverse effects on the environment.

This proposal is therefore consistent with these objectives and policies.

#### 8.5 The Wairau Awatere Resource Management Plan

The Wairau Awatere Resource Management Plan (the Plan) contains objectives and policies relating to water resources.

Specifically, Chapter 6 – Fresh Water, Volume 1 of the Plan, contains the following objectives and policies:

Objective 6.2.1.1 To provide for the taking, use, damming and diversion of fresh water in a manner which safeguards the life supporting capacity of the resource and avoids, remedies or mitigates

any adverse effects on the environment.

Policy 1.1 To maintain surface water flows at levels which safeguard the life supporting capacity of the resource by setting and enforcing Sustainable Flow Regimes (SFRs) in terms of

specified river flows.

#### Policy 1.5

To set the SFR for fresh surface waters to:

- protect in-stream habitat and ecology.
- improve fish passage and spawning grounds.
- protect the natural character of freshwater resources.
- maintain water quality.
- protect cultural values.
- provide for aguifer recharge.

This application is within the SFR as set for the Wairau River. The SFR has been set to prevent adverse effects on the environment. Therefore the proposal is consistent with the above objective and supporting policies.

Objective 6.3.1.1

To achieve equitable allocation and use of surface water and

groundwater resources.

Policy 1.3

To set water permit volumes, initially and at either review or renewal, on the basis of water allocation guidelines or actual

use as indicated by water meter readings.

The volume of water applied for equates to application rates consistent with MDC's guidelines as contained in the Plan.

Objective 6.4.1.1

To establish an efficient resource use regime and support

sustainable management of the freshwater resource.

Policy 1.1

To enable more efficient use of fresh water resources

through implementation of a triple class water permit

system.

Policy 1.2

To allocate water on the basis of guidelines.

Policy 1.3

To encourage water storage in water short areas, for use during low flow and level periods, by exempting water retained in storage from any conditions on use, and when flows are high allowing water to be drawn off for storage purposes.

This application is entirely consistent with these objectives and policies as it is within the allocation that has been developed in order to provide for in-stream values of the Wairau River.

The volume of water abstraction applied for is consistent with the Council irrigation guidelines as contained in the Plan. The proposed abstraction can therefore be considered to be an equitable and efficient use of the water resource.

#### 9 Resource Consent Duration

The applicant seeks that the consents sought to breach Section 14 of the Act be granted with a 10 year duration in light of the nature and purpose of activity proposed.

# 10 Proposed Monitoring

The Fourth Schedule of the Act, requires that 'where the scale or significance of the activity's effect are such that monitoring is required, a description of how, once the proposal is approved, effects will be monitored and by whom'.

Monitoring of the abstraction is to be carried out by the consent holder which includes meeting any conditions of consent.

#### 11 Conclusion

Craig Stewart and Sharyn Elizabeth Marfell are seeking resource consent for the following specific activities:

- Water Permit Take Underground Water
  - To take underground water from an existing well O28w/0004 located on Lot
     2 DP 10346 up to a maximum rate of 52.9 l/s, 4560 m³/day.
- Water Permit Use Water
  - To use underground water for the irrigation of up to 80 ha of crops and pasture on Section 25 Blk I Avon Survey District.

Water meter 1364 is installed at the well and has been verified with Council holding that record.

A 10 year duration is sought.

Any associated potential effects on the environment can be appropriately avoided, remedied or mitigated through the imposition of appropriate conditions of consent.

The proposal is consistent with the relevant provisions of Part 2 of the Act, the National Policy Statement for Freshwater Management 2014, the Marlborough Regional Policy Statement and the Wairau Awatere Resource Management Plan.

Accordingly resource consent should be granted to this proposal.

Appendix 1 – Location Plan

Appendix 2 – Detailed Site Plan



Appendix 3 – Certificates of Title



#### COMPUTER FREEHOLD REGISTER **UNDER LAND TRANSFER ACT 1952**



#### Search Copy

Identifier

MB4C/730

Land Registration District Marlborough

**Date Issued** 

09 March 1989

#### Prior References MB3D/1471

Estate

Fee Simple

Area

1048.1358 hectares more or less

Legal Description Section 25 Block I Avon Survey District

**Proprietors** 

Craig Stewart Marfell and TVA Trustees Limited

#### Interests

Subject to Section 3 Petroleum Act 1937

Subject to Section 8 Atomic Energy Act 1945

Subject to Section 3 Geothermal Energy Act 1953

Subject to Section 6 and 8 Mining Act 1971

Subject to Section 5 Coal Mines Act 1979

Subject to Section 261 Coal Mines Act 1979

Subject to Part IV A Conservation Act 1987

122107 Electricity Agreement pursuant to Section 50 Electricity Act 1968 - 8.11.1984 at 2.02 pm

148928 Transfer creating the following easements - 13.10.1989 at 10.43 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Right of way	Section 24 Block I Avon Survey District - CT MB4C/729	A DP 7526	Section 25 Block I Avon Survey District - herein	
Convey water	Lot 1 Deposited Plan 10346	E DP 10346	Section 25 Block I Avon Survey District - herein	
Convey water	Lot 2 Deposited Plan 10346	C H J & M DP 10346	Section 25 Block I Avon Survey District - herein	
Convey water	Lot 4 Deposited Plan 10346 - CT MB6A/331	F DP 10346	Section 25 Block I Avon Survey District - herein	
Convey water	Section 24 Block I Avon Survey District - CT MB4C/729	B & C DP 7526	Section 25 Block I Avon Survey District - herein	
Right of way and a right to convey water	Lot 1 Deposited Plan 9113 - CT MB5B/1006	C DP 7526	Section 25 Block I Avon Survey District - herein	
Right of way	Lot 1 Deposited Plan 10346 - CT MB6A/328	A DP 10346	Section 25 Block I Avon Survey District - herein	

Identifier	MB4C/730
Right of way	Lot 2 Deposited Plan

d Plan B K & L DP 10346 Section 25 Block I

10346 - CT MB6A/329

Avon Survey District -

herein

herein

creating the following easements ... 10 12 1003 at 2.30 nm

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Convey water	Section 1 Survey Office Plan 7122 - CT MB5B/410	A DP 8988	Section 25 Block I Avon Survey District - herein	
Convey water	Section 2 Survey Office Plan 7122 - CT MB5B/410	B DP 7122	Section 25 Block I Avon Survey District - herein	
Convey water	Lot 1 Deposited Plan 9113 - CT MB5B/1006	B DP 8988	Section 25 Block I Avon Survey District - herein	
Convey water	Lot 2 Deposited Plan 10346 - CT MB6A/329	P DP 10346	Section 25 Block I Avon Survey District -	

202377.1 Gazette Notice 1996 page 4513 declaring State Highway 63 adjoining the within land to be a Limited Access Road - 8.2.1999 at 9.20 am

203302.1 Crossing Place Notice pursuant to Section 91 Transit New Zealand Act 1989 - 15.3.1999 at 9.05 am 203303.1 Crossing Place Notice pursuant to Section 91 Transit New Zealand Act 1989 - 15.3.1999 at 9.05 am

203303.2 Crossing Place Notice pursuant to Section 91 Transit New Zealand Act 1989 - 15.3.1999 at 9.05 am

203303.3 Crossing Place Notice pursuant to Section 91 Transit New Zealand Act 1989 - 15.3.1999 at 9.05 am

203303.4 Crossing Place Notice pursuant to Section 91 Transit New Zealand Act 1989 - 15.3.1999 at 9.05 am

203304.4 Crossing Place Notice pursuant to Section 91 Transit New Zealand Act 1989 - 15.3.1999 at 9.05 am

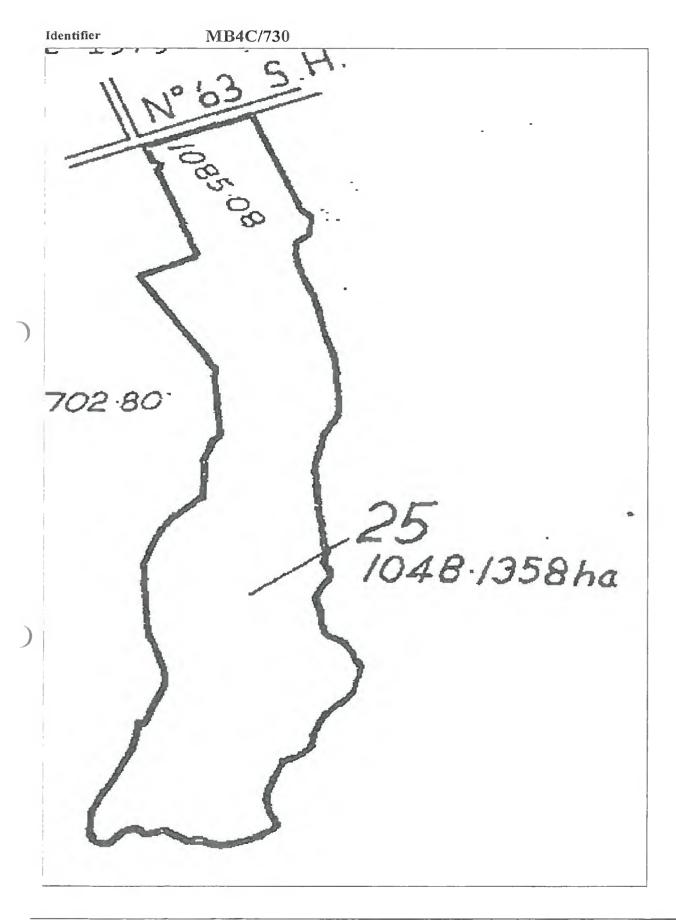
205296.2 Mortgage to (now) Mortgage Holdings Limited - 14.6.1999 at 12:00 pm

6674157.6 CAVEAT BY TRUSTPOWER LIMITED - 5.12.2005 at 9:00 am

7138087.2 Mortgage to ANZ National Bank Limited - 30.11.2006 at 9:00 am

7758275.4 Surrender of the right of way as to parts marked M, N, T, O, G and P on DP 399409 appurtenant hereto specified in Easement Certificate 148928 - 20.3.2008 at 9:00 am

Appurtenant hereto is a right of way created by Easement Instrument 7758275.6 - 20.3.2008 at 9:00 am The easements created by Easement Instrument 7758275.6 are subject to Section 243 (a) Resource Management Act 1991





# COMPUTER FREEHOLD REGISTER **UNDER LAND TRANSFER ACT 1952**



#### Search Copy

Identifier

Land Registration District Marlborough

**Date Issued** 

MB6A/329 21 October 1998

#### Prior References MB5C/1348

Estate

Fee Simple

Area

58.0830 hectares more or less

Legal Description Lot 2 Deposited Plan 10346

**Proprietors** 

Delegat's Wine Estate Limited

#### Interests

192835.1 Transfer creating the following easements

Type

Servient Tenement

Easement Area

Dominant Tenement

Statutory Restriction

Convey water

Lot 2 Deposited Plan 9113 - CT MB5B/1007 B & C DP 10217

Part formerly contained in CT MB5B/1009 -

herein

192835.2 Transfer creating the following easements

Type

Servient Tenement

Easement Area

Dominant Tenement

Statutory Restriction

Convey water

Lot 2 Deposited Plan 10346 - herein

IJK & N DP 10346

Lot 2 Deposited Plan

9113

Convey water

Lot 2 Deposited Plan 10346 - herein

IJK & N DP 10346 Lot 3 Deposited Plan

9113

Subject to Section 3 Petroleum Act 1937 (affects the part previously contained in CT MB5B/1009)

Subject to Section 8 Atomic Energy Act 1945 (affects the part previously contained in CT MB5B/1009)

Subject to Section 3 Geothermal Energy Act 1953 (affects the part previously contained in CT MB5B/1009)

Subject to Section 6 and 8 Mining Act 1971(affects the part previously contained in CT MB5B/1009)

Subject to Section 5 and 261 Coal Mines Act 1979 (affects the part previously contained in CT MB5B/1009)

Subject to Part IV A Conservation Act 1987 (affects the part previously contained in CT MB5B/1010)

Subject to Section 11 Crown Minerals Act 1991 (affects the part previously contained in CT MB5B/1010)

148928 Transfer creating the following easements

<b>Type</b> Right of way	Servient Tenement Lot 2 Deposited Plan 10346 - herein	Easement Area B K & L DP 10346	Dominant Tenement Section 25 Block I Avon Survey District - CT MB4C/730	Statutory Restriction
Right of way	Lot 2 Deposited Plan 10346 - herein	B K & L DP 10346	Section 25 Block I Avon Survey District - CT MB4C/732	
Convey water	Lot 2 Deposited Plan 10346 - herein	CHJ&MDP 10346	Section 25 Block I Avon Survey District - CT MB4C/730	
Convey water	Lot 2 Deposited Plan 10346 - herein	CHJ&MDP 10346	Section 25 Block I Avon Survey District -	

171700 Transfer creating the following easements

Identifier	MB6A/329	)		
Type Convey water	Servient Tenement Lot 2 Deposited Plan 10346 - herein	Easement Area P DP 10346	Dominant Tenement Section 25 Block I Avon Survey District - CT MB4C/732	Statutory Restriction
Convey water	Lot 2 Deposited Plan 10346 - herein	P DP 10346	Section 25 Block I Avon Survey District - CT MB4C/730	
173675.10 Easeme	ent Certificate specifying th	e following easements		
Type Right of way and electricity and telephonic communications	Servient Tenement Lot 2 Deposited Plan 9113 - CT MB5B/1007	Easement Area C DP 9113	Dominant Tenement Part formerly contained in CT MB5B/1009 - herein	Statutory Restriction

The easements specified in Easement Certificate 173675.10 is subject to Section 243(a) Resource Management Act 1991

200527.10 Consent Notice pursuant to Section 221(1) Resource Management Act 1991 - 21.10.1998 at 9.49 am

200527.11 Easement Certificate specifying the following easements - 21.10.1998 at 9.49 am

**Servient Tenement** Easement Area **Dominant Tenement** Statutory Restriction Type Lot 2 Deposited Plan IJK & N DP 10346 Convey water Lot 3 Deposited Plan 10346 - herein 10346 - CT MB6A/330 Lot 3 Deposited Plan O DP 10346 Convey water Lot 2 Deposited Plan 10346 10346 - herein

The easement specified in Easement Certificate 200527.11 will be subject to Section 243(a) Resource Management Act 1991 when created

200527.12 Variation of the conditions of the easement specified in Transfer 192835.1 - 21.10.1998 at 9.49 am 202377.1 Gazette Notice 1996 page 4513 declaring State Highway 63 adjoining the within land to be a Limited Access Road - 8.2.1999 at 9.20 am

203559.3 Crossing Place Notice pursuant to Section 91 Transit New Zealand Act 1989 - 25.3.1999 at 9.10 am 203559.4 Crossing Place Notice pursuant to Section 91 Transit New Zealand Act 1989 - 25.3.1999 at 9.10 am Subject to a right to convey water over part marked A on DP 305441 created by Transfer 5355833.1 - 27.9.2002 at 9:00 am

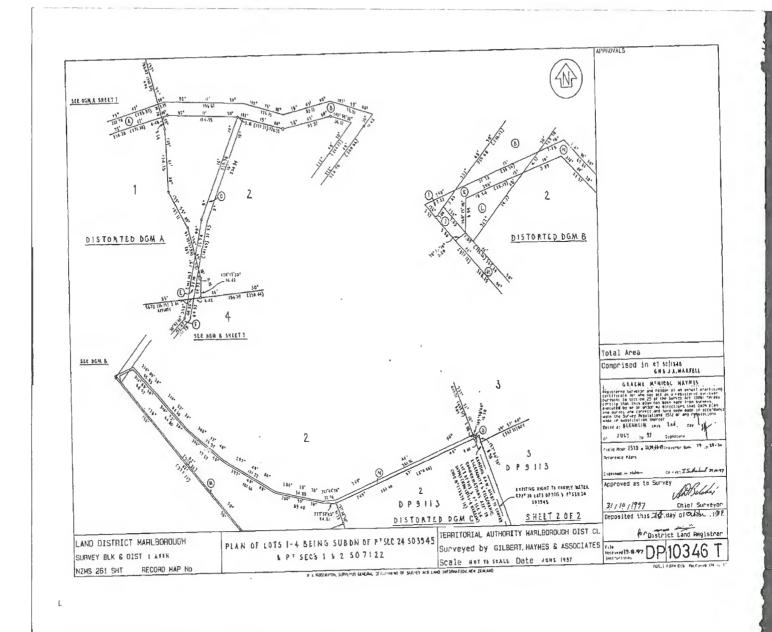
8081965.1 Variation of the conditions of the easement created by Transfer and Grant of Easement 192835.2 - 24.2.2009 at 9:00 am

8081965.2 Variation of the conditions of the easement created by Grant of Easement Without Transfer 5355833.1 - 24.2.2009 at 9:00 am

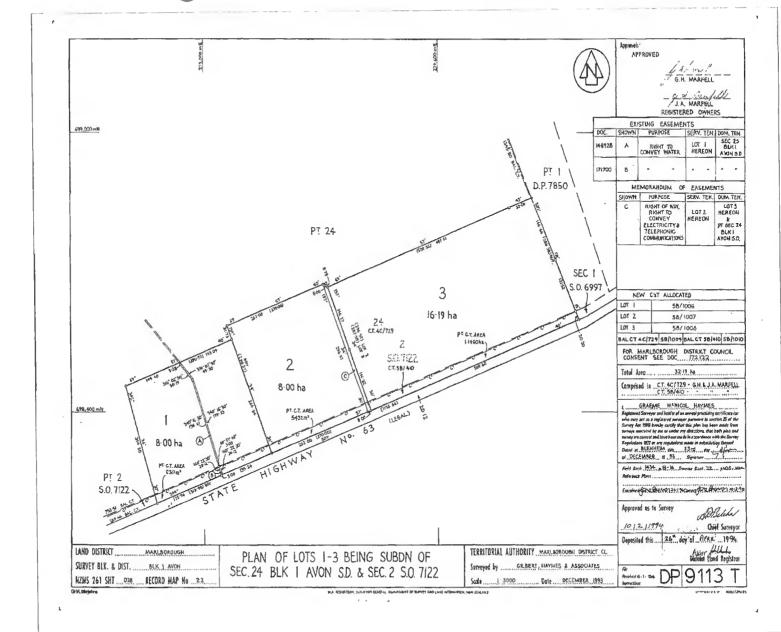
8081965.3 Variation of the conditions of the easement created by Transfer and Grant of Easement 192835.1 - 24.2.2009 at 9:00 am

Identifier

Identifier



Identifier



PATTLE DELAMORE PARTNERS LTD

Level 2, Radio New Zealand House 51 Chester St West, Christchurch PO Box 389, Christchurch, New Zealand Tel +3 363 3100 Fax +3 363 3101 Web Site http://www.pdp.co.nz Auckland Wellington Christchurch

solutions for your environment



13 May 2005

Ron Sutherland Property and Land Management Services Ltd PO Box 751

**BLENHEIM** 



Dear Ron,

#### **RE: ANTHONY DOWNS STREAM DEPLETION ASSESSMENT**

We have assessed the data that you have provided for the pumping test carried out in well 028w/4 at Anthony Downs. The results of this assessment are presented in this letter. In summary, a stream depletion rate of 9 L/s was calculated 24 hours into the pumping test; however there is some uncertainty due to the inaccuracies associated with stream gaugings. The Hunt (1999) stream depletion solution was utilised to obtain a set of parameters that would produce a theoretical stream depletion rate equivalent to the measured stream depletion rate.

#### **Stream Depletion Test**

A 24 hour pumping test was carried out at a rate of 52.7 L/s on the 22<sup>nd</sup> of December 2004. The set-up consisted of two gauging stations in the nearby Walker's Stream; one at 200 m upstream of the site and one at 200 downstream of the site. Another well on the property used for a stock water supply was used as an observation well. This well is 275 m from the pumped well, well 028w/4. A schematic sketch of the gauging sites and the wells is shown in Figure 1.



Flow gaugings were carried out at the two gauging points on the morning of the 22<sup>nd</sup> of December prior to the test. The flow at the upstream gauging site (site 2) was recorded as 40 L/s, while a flow of 73 L/s was measured at the downstream gauging site (site 1). This flow difference suggests that Walker's Stream was gaining 33 L/s from groundwater over the 400 m length of streambed between the gauging sites.

The initial depth to water in the pumped well was measured at 2.84 m. The initial depth to water in the Anthony Downs stock-water well was 0.89 m. During the test, regular measurements of drawdown in the pumped well and in the stock water well were carried out. The stock water well was in use during the test causing water level fluctuations which make it difficult to distinguish the drawdown caused by the pumping test and the self-induced drawdown in the well. The drawdown in the pumped well fluctuated between 1.1 to 2.6 m over the course of the pumping test. These fluctuations suggest that the pumping rate was also changing over the course of the test. The change in water levels measured in both the pumped well and the observation well are plotted in Figure 2.

At 24 hours into the test a second flow gauging was carried out. This showed that the flow at the upstream gauging site (site 2), was 41 L/s and the flow at the downstream gauging site (site 1), was 65 L/s. This suggests that Walker's Stream was gaining 24 L/s from groundwater.

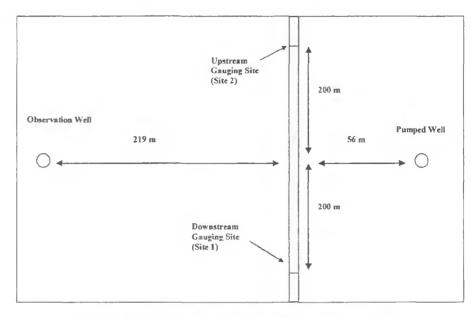


Figure 1: Schematic sketch of the test set-up (not to scale)

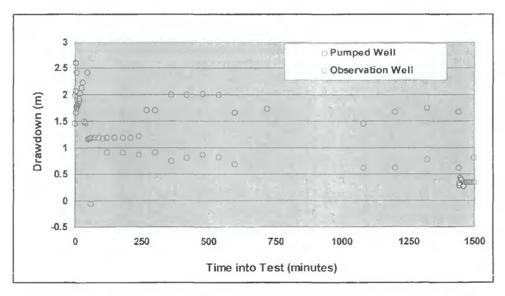


Figure 2: Change in water level over the course recorded in the pumped well and observation well during the Anthony Downs pump test

#### Results

The flow gaugings indicate that pumping the well at a rate of 52.7 L/s, induced a stream depletion effect of 9 L/s after one day. However, manual stream gaugings generally have an accuracy of  $\pm$ 10% so this measurement will not be exact. The flow gaugings and the associated magnitude of errors are shown in Table 1.

Table 1: Flow Gaugings and Associated Gauging Inaccuracies

Time into Test (days)	Flows at Upstream Gauging Site (Site 2)	Flows at Downstream Gauging Site (Site 1)	Flow Difference
0	40 L/s ± 4.0 L/s	73 L/s ± 7.3 L/s	33 L/s ± 11.3 L/s
1	41 L/s ± 4.1 L/s	65 L/s ± 6.5 L/s	24 L/s ± 10.6 L/s
		Stream Depletion Rate:	-9 L/s ± 21.9 L/s

A stream depletion calculation was carried out to consider a possible combination of parameters that could cause a stream depletion of 9 L/s, while recognising that this value is likely to have a relatively large degree of uncertainty.



The Hunt (1999) stream depletion solution was chosen to be the most applicable solution for the analysis. This solution is based on groundwater pumping from an unconfined aquifer and allows for the presence of lower permeability material in the streambed. A stream depletion analysis using the Hunt (1999) solution showed that a transmissivity of 1000 m²/day, a storativity value of 0.1 and a streambed conductance of 7 m/day would result in a stream depletion effect of 9 L/s after pumping the well at 52.7 L/s for 24 hours. The transmissivity value is typical for gravel aquifers and the storativity value is typical for an unconfined gravel aquifer. The streambed conductance value reflects a streambed material that has a hydraulic conductivity approximately one order of magnitude smaller than the hydraulic conductivity of the aquifer, which is realistic for the case where there are some finer grained sediments lining the streambed.

The set of parameters was used to assess longer term stream depletion rates caused by groundwater abstraction from the well. Figure 3 shows the stream depletion rate calculated for pumping at a rate of 52.7 L/s for 24 hours, for 1 day in every 3. The stream depletion shown in Figure 3 has a high degree of uncertainty given the inaccuracies associated with stream gaugings and the limited field data available. The stream depletion curve is only constrained by 2 data points, zero depletion at the start of pumping and 9 L/s at 24 hours pumping.



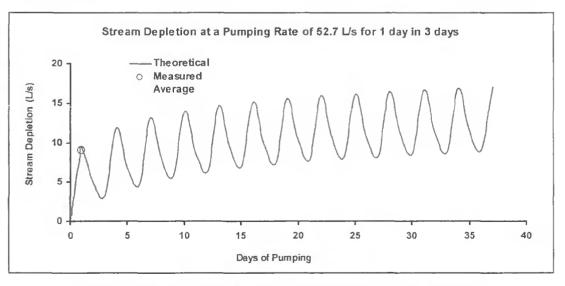


Figure 3: Long Term Stream Depletion Predictions based on Cyclic Pumping

Figure 4 shows the stream depletion that could be expected to develop if the well was pumped continuously at a rate of 52.7 L/s, based on the same set of parameters used to predict the stream depletion shown in Figure 3.

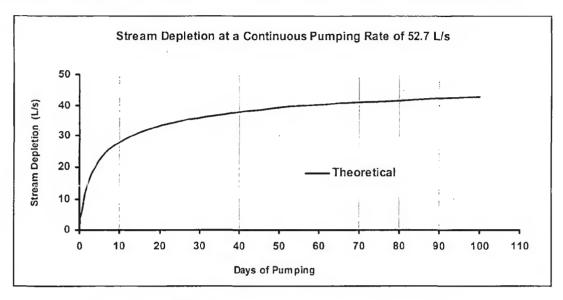


Figure 4: Long Term Stream Depletion based on Continuous Pumping

Because the Anthony Downs stock-water well was pumped over the course of the test, any potential drawdown could not be analysed. However, a drawdown calculation showed that the set of parameters determined from the gauging analysis would not cause any perceivable drawdown in the Anthony Downs stock-water well over the time period of the test. The test data was collected under the conditions that will be present during the proposed irrigation.

#### Summary

A 24 hour stream depletion test was carried out at Anthony Downs. The test involved pumping well 028w/4 at a rate of 52.7 L/s for 24 hours, gauging stream flow in Walker's Stream at 200 m upstream and downstream from the well and measuring water levels in a nearby stock-water well. Two sets of flow gaugings carried out indicated that the rate of groundwater seepage into the stream between the two gauging sites decreased over the course of the pumping test. This indicates that there is hydraulic connection between Walker's Stream and well 028w/4. However, the difference is small relative to the accuracy of the flow measurements therefore there is a high degree of uncertainty regarding the exact nature of the effect.

More data would be required for a more accurate stream depletion assessment. However, a set of parameters that reproduced the measured stream depletion rate after 24 hours was able to be determined. Despite the uncertainty with the parameters obtained, the aquifer parameters are equivalent to typical values for the type of aquifer present at the site.

We trust that you will find these comments helpful. If you have any further questions about the assessment, please contact us.

Yours sincerely

PATTLE DELAMORE PARTNERS LIMITED

Hilary Lough



To: Marlborough District Council PO Box 443 Blenheim 7240



ISO 9001:2008 Document Number: RAF0010-CI1220

# SUBMISSION ON APPLICATION FOR A RESOURCE CONSENT

1.	Submitter Details	
Nam	ne of Submitter(s) in full	
Add	ress for Service (include post code)	
Ema	iil	
Tele	phone (day) Mobile	Facsimile
Contact Person (name and designation, if applicable)		
_		
2.	Application Details	
Application Number		U
Name of Applicant (state full name)		
Appl	lication Site Address	
Description of Proposal		
3.	Submission Details (please tick one)	
l/we	support all or part of the application	
I/we oppose all or part of the application		
I/we are neutral to all or part of the application		
	specific parts of the application that my/our sees if required)	ubmission relates to are (give details, using additional



The reasons for my/our submission are (use additional pages if required)			
applio	decision I/we would like the Council to make is (give details includin ication you wish to have amended and the general nature of any coles if required)		
4.	Submission at the Hearing		
I/we \	wish to speak in support of my/our submission		
I/we do not wish to speak in support of my/our submission			
Coun or mo such	IONAL: Pursuant to section 100A of the Resource Management Act ncil delegate its functions, powers, and duties required to hear and core hearings commissioners who are not members of the Council. (a a request you may be liable to meet or contribute to the costs of coalso be made separately in writing no later than 5 working days after	decide the application to one  Please note that if you make ommissioner(s). Requests	
5.	Signature		
C:		Data	
Signature		Date	
Signature		Date	
6.	Important Information		
	Council must receive this completed submission before the closing date an completed submission may be emailed to <a href="mailto:mdc@marlborough.govt.nz">mdc@marlborough.govt.nz</a>	d time for submission for this application. The	
	<ul> <li>You must also send a copy of this submission to the applicant as soon as r address for service.</li> </ul>	easonably practicable, at the applicant's	
	Only those submitters who indicate that they wish to speak at the hearing v	vill be sent a copy of the hearing report.	
7.	Privacy Information		
Act 19	Information you have provided on this form is required so that your submission can be 1991. The information will be stored on a public file held by Council. The details may a te. If you wish to request access to, or correction of, your details, please contact Co	also be available to the public on Council's	

 $O: Templates forms \\ Reg Quality Systems \\ I Resource Mgmt Control Chapter (R) \\ AF Application Forms \\ RAF0010-C11220-Submission on Application for Resource Consent-1. doc$