

CON080: APPLICATION FOR RESOURCE CONSENT

TO DISCHARGE DAIRY EFFLUENT & TO STORE DAIRY EFFLUENT

If you need help in filling out this form please contact our Customer Services staff on (03) 353-9007 or toll free 0800 EC INFO (0800 324 636). They will be able to provide some general assistance.

Send the completed application to: *Environment Canterbury, 58 Kilmore Street, P O Box 345, Christchurch 8140.*

FOR OFFICE USE ONLY

Receipt number: _____

Charges paid: _____ CRC: _____

Information

Completing all the questions in this form:

- (a) may satisfy the requirements of the Resource Management Act 1991 for an application for resource consent. Environment Canterbury will inform you if further information is required.
- (b) will assist with the prompt processing of your application - any omissions in the form may result in significant delays and costs while the required information is obtained.

Charges

Your application must be accompanied with the deposit charge specified in the "Summary of Resource Consent Charges" or at www.ecan.govt.nz. When your application has been processed, if the actual and reasonable costs incurred by Environment Canterbury exceed the deposit charge, you will be invoiced for the balance. If the cost of processing an application is less than the deposit charge paid, the balance will be refunded. You can require the provision of an estimate of the charge for processing your application. If an application is declined all charges must still be paid.

All accounts are payable by the 20th day of the month following the date of invoice. If the account is not paid within 30 days after the due date, our debt collection agent may charge you a fee equal to 25% of the unpaid portion of the account, but no less than \$25.00. Where the total debt collection costs, legal and other costs arising from the collection of any amount owing exceeds the debt collection fee charged, our debt collection agent is also entitled to recover such additional costs. All Environment Canterbury charges must be met by the applicant. This may include time spent discussing issues with the applicant and any other parties involved in the process.

Part A: Application Details

1. Name and address of applicant(s):

Surname:	First names (in full):	Mr/Mrs/Ms/ Miss/Dr/Prof.
Surname:	First names (in full):	Mr/Mrs/Ms/ Miss/Dr/Prof.
OR		
Registered Company name and number:		
Postal address:		
		Postcode:
Phone (home):	Phone (business):	
Fax (home):	Fax (business):	
Email:	Cellphone:	
Contact person:		

You must declare by ticking this box if you are an ECan staff member, an ECan Councillor, or a family member of either.

2. Consultant/Agents details (if applicable):

Contact person: _____

Company: _____

Postal address: _____

Postcode: _____

Email: _____

Phone: _____ Fax: _____

During the processing of your application who will be the contact person for making decisions? Applicant Consultant / Agent
Note: All correspondence during the consent investigation process will be directed to this contact person, unless instructed otherwise. Final decision documents will be sent to the applicant.

Who will be the contact person for compliance monitoring matters? Applicant Consultant / Agent

3. Names and addresses of the owner and occupier of the site to which this application relates.

(You only need to include this information if it is different to that of the applicant(s))

Owner: _____ Phone: _____

Postal address: _____

Postcode: _____ Fax: _____

Occupier: _____ Phone: _____

Postal address: _____

Postcode: _____ Fax: _____

4. The location of the site to which this application relates:

Site address: _____

Locality: _____

Legal description: _____

Map reference: _____

The legal description can be found on the certificate of title, valuation notice, subdivision plan or rate demand for the site. Please include a copy of one of these with your application.

5. Under which District Council or City Council is this site located?

- | | | | |
|--|---------------------------------------|---|-------------------------------------|
| <input type="checkbox"/> Ashburton DC | <input type="checkbox"/> Kaikoura DC | <input type="checkbox"/> Timaru DC | <input type="checkbox"/> Waitaki DC |
| <input type="checkbox"/> Christchurch CC | <input type="checkbox"/> Mackenzie DC | <input type="checkbox"/> Waimakariri DC | |
| <input type="checkbox"/> Hurunui DC | <input type="checkbox"/> Selwyn DC | <input type="checkbox"/> Waimate DC | |

Have you consulted with the appropriate District or City Council to determine whether you need a consent from them for this activity?

Yes No

If yes, what was their response? _____

If a consent is required, have you applied for it? Yes No

PART B: ASSESSMENT OF EFFECTS

1. INTRODUCTION

You must include an assessment of the effects of your activity on the environment as part of your application.

Section 88 of the Resource Management Act 1991 requires that each application include an assessment of the actual and potential effects of the activity on the environment. This assessment must be prepared in accordance with the Fourth Schedule of the Resource Management Act. A copy of this schedule is available from Customer Services. For further assistance in preparing this assessment, Environment Canterbury has a fact sheet available entitled "Preparation of Assessment of Effects on the Environment."

The assessment of effects will differ for each application depending on the type and scale of the activity. Consultation is one of the best ways of identifying adverse effects.

2. LEGAL & PLANNING MATTERS

Consent requirements

If your activity commenced prior to 3 July 2004, please contact Customer Services on the numbers listed on the front of the form, to determine whether you require a resource consent.

If your activity commenced after 3 July 2004, please complete the following section.

Please read the attached form "Associated Notes" to determine which resource consents you will require. Use this information to complete the following table. If you require resource consent, please specify which conditions you cannot comply with.

Rule	Do you require a resource consent?		Which conditions can you not comply with?
	Yes	No	
WQL26 – Discharge animal effluent to land (all animal effluent discharges require resource consent)	✓		N/A
WQL24 – Discharge solid animal effluent	✓		N/A
WQL25 – Use of land for stock holding pad			
WQL29 – Use of land for storing animal effluent			
AQL65 – The discharge of contaminants to air from dairy effluent spreading			

3. DESCRIPTION OF THE PROPOSED ACTIVITY

(a) Background information

- Have you held any previous resource consents at this site for this activity or any related activities?

Yes No

If you have answered Yes, please provide the consent number: CRC _____

- Do you hold a current resource consent to abstract groundwater or surface water for the irrigation of your property?

Yes – existing consent number CRC _____ ;

No

(ii) What is the volume of these other contaminants? _____ (litres per day)

(d) The Disposal System

(i) Collection System

- Describe the system you have in place to collect effluent, including all stone traps, sumps, ponds, etc.

- Where will the contaminants (ie dairy effluent, washdown water, etc) be stored? You will need to provide a map showing the location of the storage facility and the distances to nearby wells, surface water bodies and property boundaries.

- Please provide a plan showing the dimensions of the storage facility.
- What is the holding capacity of the storage facility? _____ litres
- How many days storage is available in the storage facility? _____ days
- What is the storage facility lined with? _____
- How thick is the lining? _____ mm
- What is the seepage rate from the storage facility? _____ m/sec

Please note: If your storage facility is lined with concrete, or 600mm of clay or more, you can assume the seepage rate is 10⁻⁸m/second. If your storage facility is not lined with concrete or is lined with less than 600mm clay, then you will need to provide the results of a seepage test or an engineer’s certificate confirming the seepage rate.

- How often do you clean solids out of your holding facilities? _____ days/months
- Where do you discharge the solids? _____
- Do you discharge the solids to the same area of land more than once in a period of six consecutive months?
 Yes No

(ii) Discharge/ Irrigation system

- What method(s) will you use to discharge effluent to land?
 Spray irrigation – type of irrigator, eg, centre pivot _____
 Slurry tanker
 Borderdyke *

* Note: When **border dykes** are used to spread effluent there can be a high risk of polluting groundwater. This is due to the lack of flow control, which can result in effluent being easily lost due to run off and percolation below the root zone.

- How large is the area over which effluent will be spread each year? _____ hectares
- How large is the area over which the effluent will be spread each day? _____ m²
- What is the range of application rates available with the equipment used? _____ - _____ mm/hr
- How often will effluent be discharged? Every _____ day(s)
- Please provide a map showing the whole discharge area.
- If you use a flush pond to discharge effluent with a border-dyke irrigation system:
 (i) Are the gates of the pond completely sealed when you are not discharging? Yes No

If you have answered No to the above question, please explain what measures you have in place to ensure contaminants from the flush pond don’t leach into groundwater.

(ii) How long does it take to empty the pond? _____

(iii) Back up systems

- What plans do you have in place for effluent disposal if pumps or machinery break down?

- What plans do you have in place for effluent disposal if you are unable to discharge due to environmental factors? (eg: if discharging effluent would result in you exceeding the application depth after heavy rainfall or, if you are unable to discharge because of snow-covered or frost covered ground).

- Will you be discharging onto frozen ground or snow-covered ground? Yes No

If you have answered Yes, please provide a detailed assessment on the effects your discharge will have on groundwater quality.

4. CONSULTATION

Matters to consider when deciding who to consult include odour, spray drift, visual effects and contamination of wells.

Will the proposed discharge affect neighbours or any other persons? Yes No

If no, please explain why you consider no parties will be adversely affected?

If yes, please provide details of consultation and/ or written approvals.

Please note that if there are any persons who may be adversely affected by the proposed discharge, the consent application will be notified unless written approvals are obtained from all these persons. Please attach any written approvals that you have obtained to your application (see attached form).

5. THE RECEIVING ENVIRONMENT

(a) Discharge of Effluent

- What are the soil types on the discharge area (eg Lismore silt loam) and what are the average water holding capacities (WHC) of these soils?

Soil Type	Average WHC in mm	Approximate Area (ha)

- How have you determined the soil type? _____
- What are the subsoils? eg. gravels, clay layers _____
- Is the site over a confined aquifer? Yes No
- What is the topography of the land? eg. flat, rolling _____
- What is the prevailing wind direction? _____
- In which direction does groundwater flow? eg NW-SE _____
- What is the highest known groundwater level in the area? _____

Please specify how you obtained this information, eg well number & distance from site: _____

- What is the distance between the discharge area and the property boundaries? _____
- What are the existing concentrations of nitrate nitrogen in groundwater beneath the discharge area? _____
- What are the existing concentrations of pathogens, eg *E.coli* (*Escherichia coli*) or faecal coliform bacteria in groundwater beneath the discharge area?

Please specify how you obtained this information _____

- Are there any other discharge consents within one kilometre of the proposed discharge area? Yes No

If yes, please complete the table below:

Consent No.	Property owner / occupier	Distance from the discharge	Type of discharge eg dairy, piggery, human effluent

- Are there any bores within 500 metres of the proposed discharge area? Yes No

If yes, please complete the table below:

Bore No.	Bore owner	Distance / Direction from the discharge area	Depth of bore (m)	Use eg irrigation, domestic supply

- Are there any surface waterbodies (streams, rivers, water races, stockwater races, drains, springs, and wetlands) within the discharge area, or within 100 metres of the discharge area? Yes No

If yes, please complete the table below:

Name of waterbody	Distance from discharge area	Direction

- Are there any sensitive areas, such as community drinking water supplies, residential areas, schools, hospitals, rest homes, statutory acknowledgement areas, reserves, parks, areas of natural significance etc, within 1000m of the discharge area? Yes No

If yes, please complete the table below:

Type of sensitive area	Distance	Direction

- How far are the nearest dwellings (other than your own) from the discharge area(s)?

Distance	Direction	Name of Owner and/or Occupier

NOTE: Some of the information above can be obtained from the Customer Services Section. Any information should be verified before submitting it with your application. For example, check if bores/wells exist, if they are located correctly and what they are used for.

6. ASSESSMENT OF EFFECTS (Please note that this information is essential to process your application)

(a) Effects of pathogens entering groundwater

Studies indicate that if the effluent is spread at a rate not exceeding half the amount of water held within the root zone of the soil, the chances of pathogens passing through the soil are minimal.

Effluent application depth

$$\boxed{} \div \boxed{} = \boxed{}$$

Volume of diluted effluent irrigated per day (litres) Area over which the effluent is spread each day (metres²) Effluent application depth (mm)

Total application depth

The total application depth must include any irrigation water applied with the discharge or within 24 hours before or after the discharge.

$$\boxed{} + \boxed{} = \boxed{}$$

Effluent application depth (mm) Irrigation water application depth, if used (includes all water applied 24 hours before or after the effluent application) (mm) Total application depth (mm)

- Is the total application depth equal to or less than the recommended application depth in Table WQL26 (below)?
 - Yes
 - No (If the application depth is more than that recommended in Table WQL26 for that soil type you may want to consider increasing the area of discharge so that it complies with Table WQL26 or the effects of this activity may be considered more than minor and the application may require public notification).

Rule Table WQL26: Maximum application depths of the discharge onto land

Soil Type	Maximum application depth (millimetres)
Sand	15
Loamy sand	18
Sandy loam	22
Fine sandy loam	24
Silt loam	24
Clay loam	18

- Is the total application depth less than half the lowest average water holding capacity of the soil types specified in section 5a of this form?
 - Yes
 - No

If the answer is No, you must provide a detailed explanation why this higher application depth will ensure that the effects of pathogens from the discharge on groundwater quality are less than minor. Customer Services can provide you with a list of consultants who could assist you to do this.

- Will the total application depth result in ponding of effluent on the ground surface?

- Yes
- No

If the answer is Yes, you may want to consider increasing the area of discharge so that ponding does not occur. If the total application rate will result in ponding, the effects of your activity may be considered more than minor and the application may require public notification.

*Note: If you are proposing to spread effluent through a **border dyke** system you will need to provide detailed information on how you will manage application depth.*

This information should include, but not be limited to:

- How you will ensure the actual application depth does not exceed your proposed application depth.
- How long the effluent and irrigation water will pond on the ground surface, and what measures you will undertake to ensure ponding is kept to a minimum.
- How you will manage wipe-off water to ensure it does not enter groundwater or surface water through run-off or through soak holes.
- An assessment of the potential health effects on down-gradient water users.

(b) Effects of nitrogen entering groundwater

Studies indicate that spreading effluent at rates of up to 200kg of nitrogen per hectare per year has little effect on groundwater quality, provided that no more than 100kg of nitrogen per hectare is applied in any three month period.

Nitrogen loading rate

$$\begin{array}{ccccccc}
 \boxed{} & \times & 0.024 & \times & \boxed{} & = & \boxed{} \\
 \text{Number of cows} & & \text{kg of nitrogen per} & & \text{Number of days milked} & & \text{Total nitrogen produced} \\
 & & \text{cow per day} & & & & \text{(kg/year)}
 \end{array}$$

$$\begin{array}{ccc}
 \boxed{} & \div & \boxed{} & = & \boxed{} \\
 \text{Total nitrogen produced} & & \text{Area over which the} & & \text{Nitrogen loading rate} \\
 \text{(kg/year)} & & \text{effluent is spread annually (ha)} & & \text{(kg/ha/yr)}
 \end{array}$$

- Will the nitrogen loading rate be less than 200 kg of nitrogen per hectare per year, and less than 100kg of nitrogen per hectare in any three month period?

- Yes If you can stay within this rate, you will not need to assess the effects of nitrates on groundwater quality further.
- No If the nitrogen loading rate exceeds 200 kg/ha/yr, you will need to provide a detailed assessment of the effect of that additional nitrogen on groundwater. Customer Services can provide a list of consultants who could assist you to do this.

If you are proposing to spread effluent through a **border dyke** system you will need to provide detailed information on how you will manage the nitrogen loading rate.

This information should include, but not be limited to:

- How you will ensure the nitrogen loading rate will remain below 200 kilograms per hectare per year, on all parts of the discharge area.
- A description of any monitoring or sampling you will carry out on the effluent. For example, will you be dosing the irrigation water with effluent gradually and taking samples to measure the nitrogen levels?

(c) Effects on surface waterbodies

Twenty metres is considered to be a reasonable separation distance on flat land between the discharge area and surface water bodies to minimise the risk of contamination of the waterway.

- Will the discharge be at least 20 metres from all waterbodies, including springs, streams, rivers and stockwater races and drains?
 - Yes If yes, you will not need to assess the effects of the discharge on surface waterbodies further.
 - No If your discharge is within 20 metres of any waterbodies, you will need to provide further information to demonstrate that the discharge will not have an adverse effect on these waterbodies. Customer Services can provide a list of consultants who could assist you to do this.

(d) Effects of pathogens entering air on human health

Contaminants such as pathogens can be carried long distances by spray droplets which can be generated when effluent is spray irrigated onto land. Low pressure, large droplet sprayers operating at low heights are less likely to cause problems.

Please provide details of the steps that you will take to ensure pathogens do not cause harm to people both within your property and across your property boundaries, eg maintaining separation distances to property boundaries, planting shelter belts.

(e) Effects of odour

Please provide details of the steps that you will take to ensure that the discharge of effluent will not cause an odour which is offensive or objectionable to neighbours.

(f) Effects on visual amenity

The discharge of effluent could adversely affect the visual amenity of the area, particularly if the discharge is visible from neighbouring houses or roads. Please assess the potential adverse effects on visual amenity. Factors to consider include the nature of the surrounding environment (eg. rural), the distance to neighbouring houses and roads, and the presence of trees or other vegetation that may screen the discharge area.

(g) Other

- Do you have any soak holes on your property? Yes No

If you have answered Yes to the above question, please specify the distance between the soak hole and the discharge area, and

what measures will be taken to prevent effluent entering the soak hole.

- What measures will be taken to avoid spills of effluent?

- Will you ensure that a copy of the consent will be positioned in a prominent place in the dairy shed
 Yes No

As part of your application, you will be required to submit a Management Plan detailing how you will manage the effluent collection, treatment and disposal to ensure the conditions are complied with fully at all times and the effects of the discharge and storage of effluent on the environment are less than minor.
 - Please refer to the attached information for details on how to prepare a Management Plan.

7. CONSIDERATION OF ALTERNATIVES

You also need to consider alternative methods or locations and explain the reasons for your choice of both the method and the location of the discharge.

Please provide details of any alternatives considered and the reasons for choosing the proposed method and location of discharge.

8. SITE PLAN

Please ensure that you have attached an easy to read site plan showing the following details:

- The area where you propose to discharge the dairy effluent, and the dimensions of this area;
- Any areas on the property that are irrigated or likely to be irrigated in the future;
- Nearby houses;
- Surface waterbodies (including streams, rivers, water races, stockwater races, drains, springs, and wetlands and bores);
- Road names;
- The location of any sensitive areas, eg schools, towns, community water supplies;
- Bores within 500 metres of the discharge area;
- Location of the storage facility;
- Any soak holes on your property
- North arrow; and
- Scale.

PART C: OTHER INFORMATION**1. PREVIOUS CONSENTS**

- (a) Have you held any previous consents at this site for this activity or any related activities? Yes No
If yes, please supply the consent reference number(s) or consent holder's name (if different from current applicant's name).

CRC: _____ Name: _____

- (b) If your application is to replace an existing consent which has not yet expired, do you agree to your application being processed outside the timeframes set out in the Resource Management Act (Section 37(5A) approval) but before the expiry of your existing consent? Yes No N/A

2. NOTIFICATION

If your assessment of effects has shown that adverse effects on the environment are likely to be more than minor and/or there are people who may be adversely affected from whom you are unable to obtain written approval, you may wish to request that your application be publicly notified in order to avoid possible delays in the processing of your application.

The final decision to notify or not notify an application will still be made by Environment Canterbury.

Please note that an application cannot be notified unless there is sufficient information for the notice that makes it clear what is being applied for, and how it might affect the environment (including people).

I request that my application is notified. (check box)

3. DURATION REQUESTED

Please specify the duration sought for your consent(s): _____ years _____ months.

Note: The maximum duration allowed under the Act is 35 years.

4. START DATE

Resource consents lapse five years after their commencement date unless the consent has been given effect to or an application is made to Environment Canterbury to extend this period.

When do you propose to start the activity? _____ (date/month/year)

5. ERRORS AND OMISSIONS

When you receive your Resource Consent Documents please check that the details are correct. You have a 15 working day period after the decision is notified to allow you to object or advise of errors or omissions without cost.

ADDITIONAL NOTES TO APPLICANTS

- Your application must be publicly notified unless Environment Canterbury is satisfied that the adverse effects on the environment will be minor and written approval has been obtained from every person Environment Canterbury considers may be adversely affected by the granting of your application (unless Environment Canterbury considers it unreasonable to require the obtaining of every such approval). Enclosed is a form "Written Approval of Persons Likely to be Adversely Affected" to help you obtain such approvals.
- Section 128 of the Resource Management Act 1991 sets out the circumstances in which Environment Canterbury may review the conditions of a resource consent. Under Section 128(c) Environment Canterbury may undertake a review at any time if the application contained any inaccuracies which materially influenced the decision made.
- The information you provide with your application is official information. It will be used to process your application and, together with other official information, assist in the management of the region's natural and physical resources. Access to information held by Environment Canterbury is administered in accordance with the Local Government Official Information and Meetings Act 1987, and Privacy Act, 1993. Your information may be disclosed in accordance with the terms of these Acts. Public access is also provided to consent information via Environment Canterbury's website. It is therefore important you advise Environment Canterbury if your application includes trade secrets and/or commercially sensitive material.

PART D: SIGNATURE AND DATE

I have read all of the information on this application form and I understand that I am liable to pay all actual and reasonable charges relating to the processing of this application.

I also understand that if the application is granted, I will be liable to pay all actual and reasonable charges related to compliance monitoring of that consent.

Signature of **consultant**
print

Date

Full name of person signing – please

Signature of **applicant**

Date

Full name of person signing – please print

Note: Environment Canterbury must have written authorisation. Both the consultant (if used) and the applicant must sign this section.

CHECKLIST

Have you remembered to:

- Complete all the details set out in **Part A and Part C** of this application form.
- Include an assessment of effects of the activity on the environment, set out in **Part B** of this application form
- Enclose a **site plan**.
- Include a copy of the **certificate of title**, rates demand, subdivision plan or valuation notice for the site your application relates to.
- Sign and date** Part D of this application form.
- Include the **appropriate deposit** charge as set out in the “Summary of Resource Consent charges”.
- Include a **management plan**.