

# APPLICATION FOR RESOURCE CONSENT

Office Use Only



## DISCHARGE AGRICULTURAL EFFLUENT

### Location

Please provide details / a detailed map of where the activity will occur.

You must supply a location map or diagram on a separate sheet of paper that shows the site of your activity and its local environment. A useful addition to this application would be recent site photographs, an aerial photograph showing development and drainage, and a copy of your farm plan. This helps us determine what or who may be affected by your proposal.

Please show:

- Orientation (North arrow and scale)
- Site of proposed development, e.g. dairy shed, piggery, stand-off pad
- The location and name of the nearest road or state highway
- Your property boundaries
- Property boundaries and neighbouring properties (as well as neighbouring property owners' names)
- If applicable, a Certificate of Title
- Location and names of any nearby natural features such as geothermal activity, waterways, wetlands or wildlife habitats
- Historic or waahi tapu sites
- Proposed stormwater collection and discharge points
- Proposed effluent treatment system
- Proposed discharge point for treated effluent
- Any bores used for potable water supply
- All farm roads, tracks, buildings
- All rivers, streams/creeks and drains
- Any wetlands or other wildlife habitats

**Note:** West Coast Regional Council can help you create a base map to assist with your location plan. Please call us on (03) 768 0466 or 0508 800 118 during office hours for assistance, or call in to our office at 388 Main South Road, Paroa, Greymouth.

Is this consent application seeking to replace an existing one?

Yes  No

**If yes, please ensure you complete the section "Value of Consent Holder Investment" on Form 1: Administration.**

If yes, what is the current consent number?

**Supplier Details:** (put n/a if this application is not regarding dairy effluent)

What is your dairy shed supply number?

## Description of Activity

### Current Consents Status

Do you already hold other resource consents, e.g. For a water take, river protection?

Yes       No

If Yes, what type/s of consent/s?

What are those consent number/s?

### Effluent Sources

Which of the following activities do you propose to undertake and require a resource consent for? *If you are unsure which of your activities require a resource consent, contact a WCRC Consents Officer.*

- Dairy Shed
- Calf Shed
- Wintering Barn
- Feed Pad
- Stand-off Pad
- Wintering Pad
- Other

### Dairy Shed Effluent

What is the current number of cows currently being milked?

What is the maximum number of cows you plan to milk?

Do you propose to milk more than once per day?

Yes       No

When will the milking season start and finish? (*Give the months*)

From

To

***Calf Shed/Wintering Barn***

What number of animals do you have congregating in the shed/barn now?

What is the maximum number planned for the future?

Over what period (*give the months*) will your animals be housed in this way?

How is the effluent from the shed/barn treated and disposed of?

***Feed Pad/Stand-off Pad/Wintering Pad***

What is the distance between the pad and the nearest waterway? (*This should be shown in your site plan*)

Is the pad constructed to slope away from waterways? (*The direction of the slope of the pad should be shown in your site plan*)

Yes       No

Will the pad be bunded from waterways and drains?

- No  
 Waterways only  
 Both waterways and drains

***Other***

If you have an effluent source which does not fit into any of the above categories, please describe it below, or on an attached sheet.

## Stormwater Diversion

**NOTE:** Stormwater collected from dairy shed buildings and/or other farm buildings needs to be discharged to a farm drain or other waterway separately from agricultural effluent to ensure that the chosen effluent treatment system/s is not diluted by large volumes of water.

Describe here how stormwater collected from dairy shed/farm buildings will be managed.

In the space provided below draw a diagram showing stormwater collection points, disposal pathways and discharge points to farm drains or other waterways.

### DIAGRAM SHOWING HOW STORMWATER WILL BE DIVERTED

## Effluent Treatment

**NOTE:** Choose which of the following effluent treatment systems you plan to use and provide details at the listed section

- Ponds  
 Barrier Ditches  
 Constructed Wetlands  
 Other

### Ponds

How many ponds are planned?

Provide details on each pond in the table below:

	Length	Width	Depth	Holding Capacity (m <sup>3</sup> )	Baffle at Outlet (Yes/No)
Pond 1					
Pond 2					
Pond 3					

A table of recommended pond sizes is provided at the back of this form. This table is taken from the booklet "A Guide to Managing Farm Dairy Effluent – West Coast". A full copy of this booklet is available from WCRC. If the sizes of your ponds are smaller than those recommended in the table at the back of this form, give reasons below:

Is there a sand trap prior to the first pond?

- Yes       No

What type of filter/flow control structure is installed on the outlet from the ponds?

- T-Piece  
 Elbow  
 Baffle Drum  
 None  
 Other (please describe)

**Barrier Ditches**

How many ditch sections are planned?

Provide details on each section of the ditch in the table below:

	Length	Width	Depth	Holding Capacity (m <sup>3</sup> )	Baffle at Outlet (Yes/No)
Section 1					
Section 2					
Section 3					
Section 4					
Section 5					
Section 6					
Section 7					

A table of recommended pond sizes is available from WCRC. If the sizes of your ditch sections are smaller than those recommended, give reasons below:

Is there a sand trap prior to the first ditch?

Yes       No

Has stormwater been diverted from the barrier ditch system?

Yes       No

What type of filter/flow control structure is installed on the outlet from the ditch system?

- T-Piece
- Elbow
- Baffle Drum
- None
- Other (please describe)

**Constructed Wetlands**

**NOTE:** Council advice is available to applicants regarding appropriate plants for constructed wetlands and riparian strips.

How many constructed wetlands do you plan to have?

Provide details about each wetland in the table below:

	Length	Width	Surface Area (m <sup>2</sup> )
Wetland 1			
Wetland 2			
Wetland 3			

Describe the type of vegetation onsite or/& what you intend to plant.

Has any natural wetland been modified?

Yes       No

**Other**

If you have a treatment system which does not fit into any of the above categories, please describe it below, or on an attached sheet. Ensure that dimensions and storage capacities are supplied.

## Effluent Disposal

After treatment, what will your 'method' of discharge be?

- Directly to surface water (including the Tasman Sea, any lake, permanently flowing river, stream or drain), eg via piped outlet from the treatment system.
- Indirectly to surface water, eg via overland flow or a drain/channel that leads from the treatment system to surface water.

Briefly describe the 'method' of discharge.

What is the name of the waterbody your treated effluent will be discharged to/may enter and its characteristics (eg flow, fishing/recreational values, habitat/ecosystem values)?

Are there any farm or domestic water-takes downstream from where the discharge enters/may enter the waterbody?

- Yes       No

If yes, how close is the nearest of these?

metres

Have you considered discharging to land?

- Yes       No

Explain why you have chosen this method If No, why not?

# Assessment of Environmental Effects

## Read this statement:

Effluent discharges have the potential to cause significant environmental effects. As an applicant you need to identify all the possible effects your proposed operation could have and then show how you can avoid causing them or how you can mitigate them (i.e. reduce the effects to a level the council will approve of).

## Identification of Environmental Effects

Read the list below, then tick the relevant boxes and give explanations as requested. *For your answers think "who/what/where/when/why"*

### **Does the method you have chosen to discharge your treated effluent have the potential to cause?**

Erosion of stream banks or lakesides?

Yes       No

If no, explain why not.

Sedimentation or the built up of solids in the receiving waterbody

Yes       No

If no, explain why not.

Reduction of downstream water quality

Yes       No

If no, explain why not.

Reduction in the public amenity value of a downstream recreational area? (e.g. swimming hole)

Yes       No

If no, explain why not.

Any adverse effects on an area valued by iwi/hapu for food gathering or other cultural activities?

Yes       No

If no, explain why not.

Effects other than those listed above? *(give a short explanation)*

**Avoidance - Mitigation Methods**

List below the items you ticked **Yes** to in the previous questions *(one item per set of lines)*. These are the environmental effects you have identified which your proposed operation has the potential to cause.

Then briefly describe against each of the items you have identified, the method/s you will use to avoid causing those effects OR to mitigate them. Refer back to other parts of this application form as relevant. Attach extra sheets if necessary at the end of this application form.

**Consideration of Alternative Sites and/or Treatment Systems**

Did you consider using alternatives sites or treatment systems to those applied for?

Yes       No

If yes, please indicate why you have chosen the systems and /or site/s specified on this application over others?

## Site Monitoring

Do you propose to undertake any type of monitoring?

Yes       No

If yes, what will this entail?

### **Important information – please read carefully**

Use this Application form if you plan to discharge treated agricultural effluent to water directly or indirectly. The discharge of agricultural effluent to land ONLY is a permitted activity (except in the Lake Brunner Catchment). Please contact a Consents Officer if you need clarification about this.

Other resource consents may also be needed in conjunction with your proposed activity. Discussing this with a WCRC Consents Officer may speed up the process of getting your activity underway.

The more information provided with this application, the quicker it can be processed. WCRC Consents staff can give you a lead on how to find necessary data/information, e.g. data/information on drainage, groundwater, stream life, bird habitat, and with whom you should consult.



**THE WEST COAST**  
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## **OBJECTIVES, POLICIES AND RULES THAT MAY BE RELEVANT TO DISCHARGE OF DAIRY EFFLUENT**

This may not be a complete list, please consult with a Council Consents Officer if you require further information.

### **REGIONAL LAND AND WATER PLAN**

#### **Objectives**

**8.2.1 To maintain or enhance the quality of the West Coast's water.**

#### **Policies**

**8.3.1. The West Coast Regional Council will manage the swimming areas identified in Schedule 9 for contact recreation purposes (Class CR) and all other surface water bodies in the region for aquatic ecosystem purposes (Class AE).**

#### Explanation

Aquatic ecosystem and contact recreation standards are set in the Third Schedule of the RMA (see below). Contact recreation water bodies are identified in Schedule 9, and all other water bodies will be managed for aquatic ecosystem purposes. AE and CR classes do not exclude other water quality classes being applied if identified as appropriate through the resource consent process.

- Class AE Water (being water managed for aquatic ecosystem purposes)
  - (1) The natural temperature of the water shall not be changed by more than 3° Celsius.
  - (2) The following shall not be allowed if they have an adverse effect on aquatic life:
    - (a) Any pH change;
    - (b) Any increase in the deposition of matter on the bed of the water body or coastal water;
    - (c) Any discharge of a contaminant into the water.
  - (3) The concentration of dissolved oxygen shall exceed 80% of saturation concentration
  - (4) There shall be no undesirable biological growths as a result of any discharge of a contaminant into the water
- Class CR Water (being water managed for contact recreation purposes)
  - (1) The visual clarity of the water shall not be so low as to be unsuitable for bathing.
  - (2) The water shall not be rendered unsuitable for bathing by the presence of contaminants.
  - (3) There shall be no biological growths as a result of any discharges of a contaminant into the water.

In some streams on the West Coast the AE standards are unable to be met due to high acidity (both naturally occurring and caused by historic mining activities). This is reflected in Policy 8.3.2.

**8.3.4 When considering applications for new resource consents for existing discharges of contaminants to water, to have regard to opportunities to enhance the existing water quality of the receiving water body at any location for which the existing water quality can be considered degraded in terms of its capacity to support its natural and human use values.**

#### Explanation

There is the opportunity, with new resource consents for existing discharges, to achieve an enhancement in water quality. This can occur when the consent holder re-examines the discharge activity and makes use of technological advances in the reduction, reuse, recycling, or treatment of contaminants. The Council will have regard to these opportunities when considering resource consents to discharge contaminants to water.

This Policy applies to any location for which the existing water quality can be considered degraded in terms of its capacity to support its natural and human use values.

**8.3.5 When considering applications for resource consents to discharge contaminants to water to have regard to:**

- (a) The nature of the discharge and the sensitivity of the receiving environment to adverse effects;**
- (b) The financial implications, and the effects on the environment of the proposed method of discharge when compared with other options;**
- (c) The current environmental mitigation technology and the likelihood that the proposed method can be successfully applied;**
- (d) The cumulative effects of discharges of contaminants and the assimilative capacity of the water body and actual or potential effects in the coastal marine area; and**
- (e) Any relevant industry codes of practice or guidelines relating to the management of potential discharges.**

#### Explanation

When considering the avoidance, remedy, or mitigation of the adverse effects of the discharge of contaminants to land or water under a resource consent, the Council will consider matters identified in (a) to (d) in the Policy. This ensures the recognition of any environmental mitigation technology constraint upon the adoption of alternative treatment or discharge methods, and the best practicable option, cumulative effects and assimilative capacity, and downstream effects on the coastal marine area. With respect to (a) for example, discharges from alluvial mining operations are often temporary in nature. They can be ~~to~~ constructed ponds which form part of the treatment system and can occur with minimal effect.

**8.3.6 Mixing zones will be required for the discharge of contaminants to water. These will be limited to the extent necessary to take account of:**

- (a) Water quality classes;**
- (b) The size and sensitivity of the receiving environment;**
- (c) The matters identified in Policy 3.3.1;**
- (d) The physical processes acting on the area of discharge; and**
- (e) The particular discharge, including contaminant type, concentration, and volume.**

Explanation

Discharges of contaminants authorised under resource consents must meet any water quality standard set in respect of receiving waters after “reasonable mixing”. Reasonable mixing occurs in a mixing zone, an accepted area of non-compliance. Matters (a) to (e) of the Policy will be considered in the determination of the size of any mixing zone. In some cases devices may need to be installed to accelerate mixing.

**Objective**

**12.2.1 To ensure that the adverse effects from the discharge of agricultural contaminants into or onto land, on water and soil quality, social, cultural, and amenity values, and human health are avoided, remedied, or mitigated.**

**Policies**

**12.3.1 To ensure that the discharge of agricultural contaminants to land is conducted in such a way that any adverse environmental effects are avoided, remedied, or mitigated.**

Explanation

This Policy applies to the treatment or disposal of waste from agricultural effluent, offal pits, silage stacks, or farm tip activities. This Policy reflects the need to ensure that any adverse effects can be avoided, remedied, or mitigated through appropriate management techniques.

**12.3.2 To promote the discharge of agricultural effluent to land, provided any adverse effects on the environment are avoided, remedied, or mitigated.**

Explanation

The discharge of agricultural effluent can have adverse effects on water quality. The Council is therefore encouraging the discharge of agricultural effluent to land rather than to water.

**12.3.3 To promote land management practices which minimise the effects on surface and ground water of runoff and leachate from discharges of agricultural contaminants to land, including:**

- (a) Management of riparian margins to reduce surface water pollution from animal residues and fertilisers; and**
- (b) Applying fertilisers and agrichemicals at rates which are appropriate to site and weather conditions.**

Explanation

Discharges from agricultural activities can contribute to non-point source pollution. This Policy reflects the direction taken in the Regional Policy Statement to promote land management practices that minimise adverse effects.

**Rule 75. Land application of agricultural effluent**

The discharge of agricultural effluent into or onto land, except in the Lake Brunner catchment, is a **permitted activity** provided that all of the following conditions are met:

- (a) No agricultural effluent is discharged within:
  - i) 50 metres of any well or bore used for potable water supply and there are no adverse effects on any take of water for human consumption; or
  - ii) 20 metres of any surface water body; or
  - iii) 20 metres of any drain with flowing water; or
  - iv) 20 metres of any adjoining property; and

- (b) There is no runoff of agricultural effluent into surface water bodies, drains, or coastal water; and
- (c) There is no ponding or visible surface flow of effluent, or pasture burning; and
- (d) The application rate of agricultural effluent is at a rate not exceeding the equivalent of 200kgN/ha/year, and shall not exceed 20mm in depth per application; and
- (e) There are contingency measures in place to ensure that there is no contravention of these conditions in the event of pump or other system failure, or unsuitable soil conditions.

**Note:** This Rule applies to agricultural effluent which is collected and discharged from a point source into or onto land.

The maximum nitrogen application rate in condition (d) is set at 200kgN/ha/year as agricultural effluents are slow-release nitrogen fertilisers.

The requirement for contingency measures is for situations where any discharge would not be able to meet conditions (b), (c), (d) of the Rule. If any of the conditions cannot be met a resource consent is required.

For the purpose of this Rule, drains do not include the hollows of humped and hollowed land unless they contain water at the time of discharge. If hollows contain water at the time of discharge, then this may require a consent if it cannot meet the conditions of Rule 64.

Good practice guidelines such as how to calculate whether the maximum nitrogen application rate is being met, maximum depth of effluent to be applied, and adequate storage for herd size can be obtained from the Council.

This Rule applies only to discharges to land. There are additional requirements to control odour effects from agricultural effluent discharges to air in the Regional Air Quality Plan, and that Plan should be consulted.

#### **Rule 76. Feed lots and wintering pads**

The discharge of contaminants into or onto land at or from any feed lot, stand-off pad or wintering pad is a **permitted activity** provided that all of the following conditions are met:

- a) The discharge is not within:
  - i) 50 metres of any surface water body or coastal water; or
  - ii) 50 metres of any bore or well used for potable water supply or stock water supply, and there are no adverse effects on any take of water for human consumption; and
- b) Notwithstanding condition (a), there is no contamination of water bodies, groundwater, or coastal water.

#### **Explanation**

This Rule is intended to permit discharges that have only minor adverse effects. Potentially significant adverse effects can occur when increased volumes of animal excrement produced in a confined area result in a discharge with concentrated nitrogen into or onto land situated too close to water bodies.

#### **Rule 91. Discharge to land discretionary activity Rule**

Unless permitted by Rules 72 to 86, or controlled by Rules 87 to 90, any discharge of contaminants into or onto land is a **discretionary activity**.