

North Otago Irrigation Company
Environmental farm plan

Prepared by

**NORTH OTAGO
SUSTAINABLE LAND MANAGEMENT GROUP**

for

Version 2

October 2005

Name:

Property details

<i>Property name:</i>	
<i>Owner:</i>	
<i>Postal address:</i>	
<i>Phone No.</i>	<i>Mobile No.</i>
<i>Email address:</i>	
<i>Manager:</i>	
<i>Postal address:</i>	
<i>Phone No.</i>	<i>Mobile No.</i>
<i>Email address:</i>	

<i>Property area (ha):</i>	
<i>Effective area (ha):</i>	
<i>Area under irrigation (ha):</i>	

Enterprise type:

Dairy	Dairy grazing	Sheep & beef	Deer	Cropping
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Purpose of plan

This plan is a requirement of the resource consent held by the North Otago Irrigation Company for the supply of water to farms within the NOIC scheme area. The plan provides a simple, effective risk management approach to environmental management and covers five main areas of activity:

- Irrigation management
- Soils management
- Nutrient management
- Riparian management, and
- Dairy effluent management

The plan includes management objectives and policies for each of these activity areas.

Through the implementation of this plan NOIC aims to optimise production from irrigation while looking after the environment, including improving the health of the Waiareka Creek.

Name:

Activity	Potential impacts	What we are trying to achieve on our farm.	How will we do it	How will we monitor progress	Where will we keep the records
Irrigation management	Wasteful use of water	We will use the water effectively, with maximum production benefit without waste. We will take all practical steps to avoid drainage of irrigation water to other properties.	As per attached policies	Record any runoff events or major spills.	Farm monitoring manual
Soil management	Soil compaction & soil erosion.	We will take all practical steps, to improve the physical condition of our soils, and to minimise soil damage and erosion.	As per attached policies	Note the steps taken to improve soil physical condition and record any erosion events.	Farm monitoring manual
Nutrient management	Contamination of ground & surface waterways from nutrient runoff & leaching.	We will maintain soil fertility to optimise pasture productivity while taking all practical steps to avoid nutrient losses to water.	As per attached policies	Note steps taken and nutrient budgeting.	Farm monitoring manual
Riparian management	Damage to stream banks. Nutrient and faecal contamination of waterways.	We will protect the waterways by maintaining healthy riparian margins.	As per attached policies	Note the steps taken to maintain healthy riparian margins.	Farm monitoring manual
Dairy shed effluent management	Contamination of ground & surface water.	We will manage the effluent system to optimise the productive benefits of effluent irrigation while taking all practical steps to avoid contamination of ground and surface water.	As per attached policies	Note the steps taken and compliance with Regional Council permitted activity conditions.	Farm monitoring manual

Name:

Policy on irrigation management

Our irrigation management objective is to use the water effectively, with maximum (optimum) production benefit without waste.

With this objective in mind we undertake to comply with NOIC's specific requirements relating to irrigation management which include:

NOIC requirements	Checklist	
	Yes	No
Full compliance with Otago Regional Council conditions relating to the supply of water		

In addition we will implement our own management policies to achieve the above objectives including:

- Irrigation water applied at rates equal to or lower than soil moisture holding capacity of the soil.
- Consider the differences in water requirements between dark and sunny faces and manage irrigation accordingly.
- Schedule irrigation according to evapotranspiration, rainfall and soil moisture status.
- Match application rate to crop or pasture being grown.

Self Assessment

Do my management policies achieve the objective above?

Yes Objectives achieved

No Please fill out table below

List actions required	Person responsible	Timeframe for completion	Completion date

Verification

The information provided is verified as correct.

Property owner / manager

Signature

Date

Name:

Policy on soil management

Our soils management objectives are to take all practical steps, to improve the physical condition of our soils, and to minimise the risk of soil damage and erosion.

With these objectives in mind we undertake to comply with NOIC's specific requirements relating to soils management which include:

NOIC requirements	Checklist	
	Yes	No

In addition we will implement our own management policies to achieve the above objectives including:

- On sloping country use direct drilling or minimum tillage techniques in preference to conventional cultivation.
- Check for soil compaction in November of each year and if necessary use aerator (other methods) to alleviate the problem.
- During wet periods or when soils are saturated shift cattle regularly or break up the mobs to reduce the grazing pressure to avoid excessive pugging of paddocks.
- In certain circumstances it may be appropriate to designate a paddock as a sacrifice paddock. However, avoid paddocks where runoff from the paddock will enter waterways.

Self Assessment

Do my management policies achieve the objectives above?

Yes Objectives achieved

No Please fill out table below

List actions required	Person responsible	Timeframe for completion	Completion date

Verification

The information provided is verified as correct.

Property owner / manager

Signature

Date

Name:

Policy on nutrient management

Our nutrient management objective is to maintain soil fertility to optimise pasture productivity while taking all practical steps to avoid nutrient losses to water.

With these objectives in mind we undertake to comply with NOIC's specific requirements relating to nutrient management which include:

NOIC requirements	Checklist	
	Yes	No
Annual nutrient budget to be prepared for the irrigated area of the property.		

In addition we will implement our own management policies to achieve the above objectives including:

- Compliance with the Code of Practice for Fertiliser Use.
- Soil tests taken annually.
- Nutrients applied in accordance with a balanced nutrient budget.
- Nitrogen use – apply split dressings of no more than 30 units N per application - do not apply just prior to irrigation or if possible heavy rain or do not apply when soils are saturated – do not apply when soil temperatures are below 7 degrees.

Self Assessment

Do my management policies achieve the objectives above?

Yes Objectives achieved

No Please fill out table below

List actions required	Person responsible	Timeframe for completion	Completion date

Verification

The information provided is verified as correct.

Property owner / manager

Signature

Date

Name:

Policy on riparian management

Our riparian management objective is to protect the waterways on our farm by maintaining healthy riparian margins.

With these objectives in mind we undertake to comply with NOIC's specific requirements relating to riparian management which include:

NOIC requirements	Checklist	
	Yes	No
Riparian fencing plan to be submitted to NOIC for approval.		

In addition we will implement our own management policies to achieve the above objectives including:

- Exclude all deer and cattle from waterways.
- When cultivating a paddock for cropping we will leave a buffer uncultivated beside the stream to filter any runoff. The steeper the paddock the wider the buffer. Our buffers range from a minimum of 2m on flat land to at least 5m on sloping land.
- Leave rank buffer ungrazed when strip grazing the paddock.

Self Assessment

Do my management policies achieve the objectives above?

Yes Objectives achieved

No Please fill out table below

List actions required	Person responsible	Timeframe for completion	Completion date

Verification

The information provided is verified as correct.

Property owner / manager

Signature

Date

Name:

Policy on dairy effluent management

Our effluent management objective is to manage the effluent system to optimise the productive benefits of effluent irrigation while taking all practical steps to avoid contamination of ground and surface water.

With these objectives in mind we undertake to comply with NOIC's specific requirements relating to effluent management which include:

NOIC requirements	Checklist	
	Yes	No
Map showing the location of tile drains on the property.		
Effluent application map and effluent diary		
Full compliance with ORC permitted activity conditions relating to effluent management		

In addition we will implement our own management policies to achieve the above objectives including:

- Observe irrigator to see that the boom is rotating, that the nozzles are not blocked and that the irrigator is moving down the paddock.
- Always shift irrigator as soon as it reaches the end of its run. Don't leave it sitting in the same place.
- Do not run the irrigator over the top of tile drain lines.
- Grease irrigator when shifting to a new run. Grease effluent pump every Monday.
- Paddocks normally used for effluent dispersal are paddock numbers;

Self Assessment

Do my management policies achieve the objective above?

Yes Objectives achieved

No Please fill out table below

List actions required	Person responsible	Timeframe for completion	Completion date

Verification

The information provided is verified as correct.

Property owner / manager

Signature

Date