Environmental Management Strategy

Cheviot Irrigators Group
Executive Summary

This Environmental Management Strategy (EMS) and the Cheviot Irrigators Group (CIG) provide for the continued operation of farms as a permitted activity under the Hurunui Waiau Rivers Regional Plan.

The primary focus is irrigated farms in the lower part of the Waiau, and Hurunui Rivers (east of Lowry Range), as well as the Jed.

The management area includes dairy, irrigated dry-stock farming, dryland dry-stock farming, and horticulture/cropping.

The Desired Outcomes of this EMS are:

- Actions of CIG promote improved water quality and sustainable farm systems
- All farms at GMP or better with continuous improvement in environmental practice at the heart of everything we do
- Effective systems are in place to track progress and provide assurance that social and market expectations are being met

This EMS includes Objectives for:

- Irrigation Management
- Soil Quality
- Nutrient Management
- Wetland and Riparian Management
- Effluent Management

This EMS is set out according to the core principles of:

- Good Management Practice - All members are required to be at Good Management Practice (GMP). GMP is defined in the document *Industry Agreed Good Management Practice Guide*
- Continuous Improvement – Including a priority focus on good irrigation management practice
- Audited Self-Management - Members are solely responsible for preparation of Overseer N loss calculations, FEPs, and scheduling of Audits.

CIG will to be administered by a governance group appointed by its members.

The circumstances in which a farm will no longer be accommodated by this EMS are set out in the Policy of Continued Membership.
1. **Introduction**

1.1. This Environmental Management Strategy (EMS) provides for the continued operation of farms as a permitted activity subject to Rule 10.1 of the Hurunui Waiau Rivers Regional Plan (HWRRP) and under the governance of the Cheviot Irrigators Group (CIG).

1.2. This EMS is set out according to the core principles of:

- Good Management Practice
- Continuous Improvement
- Audited Self-Management

1.3. The primary focus of CIG and this EMS is the environmental management of irrigated farms in the lower part of the Waiau, Hurunui, and Jed Rivers.

1.4. This EMS provides the basis of an Industry Certification System as described in the definitions section of the HWRRP:

   *A system approved by Canterbury Regional Council that identifies actions to be undertaken to actively manage the use of natural resources in order to achieve high standards of environmental management and optimise production from all properties within an industry class.*

   *Any Industry Certification System must at a minimum, to the extent considered appropriate and corresponding to the scale and significance of the activities undertaken by that industry class, contain the elements identified in Schedule 2*.  

1.5. This EMS is to be read alongside other relevant regulations in particular regional rules for stock exclusion from water bodies and relevant water permits.

2. **Statement of Outcomes Sought**

2.1. This EMS seeks the following outcomes:

- Actions of CIG promote improved water quality and sustainable farm systems
- All farms are at GMP or better with continuous improvement in environmental practice at the heart of everything we do
- Effective systems are in place to track progress and provide assurance that social and market expectations are being met

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1 Schedule 2 of the Hurunui Waiau Rivers Regional Plan which outlines requirements for any Industry Certification System.

2 Notes Schedule 2(2)

3 Schedule 2 (1)(c)
3. Description of Management Area

3.1. The management area includes irrigated or partially irrigated farms within the catchments of the lower (East of the Lowry Range) Hurunui and Waiau Rivers and tributaries, as well as the Jed River. It includes a variety of land use enterprise types, including dairy, irrigated drystock farming, dryland drystock farming, and horticulture/cropping.

3.2. In circumstances where land under the control of a member (which may or may not be contiguous with irrigated areas) extends beyond the management area, this land may be included at the request of each member. This means that even though the primary focus of CIG is irrigated land, the management area is expected to include all land types or land features found east of the Lowry Range. These include:
   - Intensively farmed irrigated land;
   - Unirrigated pasture of variable productivity;
   - Areas of dryland forage crop;
   - Hydrological features such as wetlands, braided river margins, spring fed or hill fed creeks, or lakes;
   - Areas of high biodiversity.

3.3. Dairy farms are farmed on an intensively grazed ‘milking platform’. The numbers and density of stock and the fact that cows are off pasture and in the milking shed every day means that effluent management is an important consideration. Good irrigation practice to maximise water use efficiency and minimise contaminant loss from excess runoff or drainage is a priority. Effects of stock access to waterways and soil erosion are expected to be a lesser issue because dairy cows are not allowed access to surface water.

3.4. Irrigated Dry-Stock farms are relatively more intensively farmed than dryland drystock areas and often include winter forage cropping as a significant component. Winter forage crops result in intense deposition of contaminants and soil disturbance at a time of year when runoff or drainage is more likely to occur and it is expected that animals on any forage crop will not be allowed to access surface water. Management of these effects is therefore a priority for irrigated dry-stock farms, as is good irrigation management practice. The cost of irrigating on hilly land mean that this farm type is confined to flat or gently rolling areas and where permanent stock exclusion is more easily achieved.

3.5. Horticulture/Cropping, whether irrigated or not normally take place in more accessible, and flat or low-lying areas. Nutrient management and good irrigation practice are very important, with a focus on supply at a time and quantity needed to meet plant demand.

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4 Schedule 2(1)(b) Ownership details of members are listed in Appendix 1
3.6. Some farms include a **Dryland Dry-Stock** component in addition to irrigated areas. These farms are typically lightly stocked with a low overall environmental impact or risk compared to irrigated farm types, and pest management or biodiversity issues are likely to take priority. Despite this, effects of stock access to water bodies or soil erosion can be significant, particularly where the farm involves (dryland) forage crops. For this reason the effects of winter grazing, and preventing access by intensively grazed animals to water is a priority in this environment.

3.7. Identified environmental risks will be managed through Farm Environment Plans and practical application of the methods set out in this EMS according to the principles of Good Management Practice, Continuous Improvement, and Audited Self-Management.\(^5\)

4. **Governance Arrangements**\(^6\)

4.1. CIG will to be administered through a governance group appointed by its members.

5. **Objectives**

5.1. The Objectives of the EMS are consistent with those set out in HWRRP Schedule 2\(^7\).

**Objective 1 – Irrigation management**\(^8\)

5.2. Use water efficiently, and prevent excessive runoff or drainage of irrigation water.

**Objective 2 – Soil Quality**\(^9\)

5.3. Maintain or improve soil quality and prevent problems with:
- Soil erosion
- Sedimentation of waterways
- Damage to soil structure

**Objective 3 – Nutrient Management**\(^10\)

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\(^5\) Schedule 2(1)(g)

\(^6\) Schedule 2(1)(a)

\(^7\) Aspects of the HWRRP Schedule 2 Objectives read as policies or actions and resemble elements of good management practice or FEPs policy or actions. The Objectives included here are consistent with the HWRRP Objectice but have been amended to reflect appropriate outcomes or targets to be achieved in combination with the principles of GMP, Continuous Improvement, and Audited Self Management.

\(^8\) Objective 1 – Irrigation Management does not apply to hill country or dryland farming.

\(^9\) Objective 2 – Soil Quality applies to all management areas.

\(^10\) Objective 3 – Nutrient Management applies to all management areas.
5.4. Maximise nutrient efficiency and minimise nutrient loss such that industry-agreed benchmarks for nitrogen and phosphorous loss are met.

**Objective 4 – Wetland and Riparian Management**¹¹

5.5. Protect wetlands, beds of waterways, and riparian areas from damage or input of sediment associated with presence of livestock.

**Objective 5 – Effluent Management**¹²

5.6. Apply animal effluent at time and rate such that no runoff or bypass flow occurs and that all contaminants are ‘treated’ within the root zone of plants.

6. **Principle 1 - Good Management Practice**

6.1. All members are required to be at Good Management Practice (GMP). GMP is defined in the document *Industry Agreed Good Management Practice Guide*¹³⁴:

http://ecan.govt.nz/publications/General/Industry_Agreed_GMPs_A5_Version2_Sept2015_FINAL.pdf

6.2. Overseer N loss calculations will be prepared according to industry best practice standards, and nutrient loss benchmarked against GMP N-loss during the audit process.

7. **Principle 2 - Continuous Improvement**

7.1. The CIG and this EMS incorporate continuous improvement as a guiding principle.

7.2. Actions to achieve continuous improvement may occur at the farm level (changes to farm infrastructure or procedures) or across multiple farms, for example a catchment care group, educational field days, or water quality monitoring.

7.3. Commitment to the principle of continuous improvement is to be reflected in a priority on GMPs for irrigation and irrigation efficiency, and proactive response to issues identified during audits¹⁵. To ensure suitable progress is made:

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¹¹ Objective 4 – Wetland and Riparian Management applies to management areas that include livestock farming.

¹² Objective 5 – Effluent Management applies to dairy farms.

¹³ Schedule 2 (1)(h)

¹⁴ Schedule 2(2). While this part of Schedule 2 concerns Objectives, it also goes into detail around practice (inefficient water application, ponding of irrigation water, or excessive runoff or drainage). Matters relating to practice or application are better addressed through the appropriate part of the EMS (refer to sections relating to application of GMP, FEPs and audit, and continuous improvement).

¹⁵ Notes, Schedule 2(a)
All members will maintain competency in irrigation management practice, including as a minimum attendance at least one irrigation focussed field day, networking event, or educational event per year

All FEPS will include methods to:
- Supply accurate information on soil moisture levels
- Schedule applications of water according to plant demand
- Schedule maintenance activities
- Schedule staff training

7.4. CIG welcomes external support and cooperation to better achieve continuous improvement, whether from Environment Canterbury, or from bodies such as IrrigationNZ.

7.5. This EMS is intended to be a living document, and able to be readily updated in response to changing circumstances or new information and at the request of the Governance Committee, subject to Schedule 2 of the HWRPP. This flexibility is also an aspect of continuous improvement.

8. **Principle 3 – Audited Self-Management**\(^{16} \, ^{17}\)

8.1. Members are solely responsible for preparation of Overseer N loss calculations, FEPs, and scheduling of Audits.

8.2. The following must be made available to any FEP auditor:
- Current FEP
- Current Nitrogen and Phosphorous loss rate (kg/ha/year) and the Overseer .xml file if requested (see section 6 regarding steady state reporting)
- Previous audit report and action plans
- Copy of all farming related Resource Consents for the property

8.3. Prospective members must provide the following information before joining and annually thereafter:
- Extent/location of farm and contact information
- Current nitrogen loss rate for the property calculated using the Overseer model and prepared by a suitably qualified independent practitioner

8.4. Whether or not an Overseer N loss calculation or FEP meet the standard of ‘Suitably prepared’ is at the complete discretion of the chair of the Governance Committee or any delegated person.

8.5. To ensure land resources are actively managed to achieve the Objectives of the EMS, FEPs are to follow an Environment Canterbury approved templates or to meet

\(^{16}\) Schedule 2(1)(j)

\(^{17}\) Schedule 2(3)
the criteria set down in Schedule 7 of the Land and Water Regional Plan\textsuperscript{18}: A list of approved templates can be found at:

http://ecan.govt.nz/our-responsibilities/regional-plans/lwrp/Pages/information-farmers.aspx

8.6. Audits will be undertaken by an Environment Canterbury approved Independent FEP Auditor and follow the procedures set down in the Environment Canterbury Audit Manual. To maintain independence this cannot not be the person who prepared the FEP for the same property.

8.7. The audit manual, including the procedure to be followed for disputed audits, is located at:


8.8. An audit report is to be provided within the timeframe delegated by the Governance Committee and following specified timeframes thereafter. 50\% of member farms will have their first audit completed by 1 November 2017, with the remaining 50\% completed by 1 November 2018.

Figure 2. Timing and grade of audit

8.9. All Environment Canterbury approved FEP templates include Objectives. For each of these, the auditor will make an assessment as follows:

- High LOC (Level of Confidence) = Objective probably met
- Medium LOC = Objective possibly met

\textsuperscript{18} Schedule 2(1)(d)
8.10. The assessment will be based on farm observations, discussions with the farm manager, assessment of Overseer N loss calculations and any other relevant information (for example photographs or evidence of training).

8.11. Audit grade will be assigned as follows:
- A Grade – All high LOC
- B Grade – One or more medium, but on track to achieve A grade
- C Grade – One or more medium, and not on track to achieve A grade
- D Grade – Any low LOC

8.12. Farms which receive an A or B grade will be formally acknowledged as a ‘pass’ grade and require no further action until the next audit.

8.13. Farms which receive a C grade require intervention and support, and will be subject to the following (with timeframe):
- Notify CIG (immediately)
- One on one visit with CIG staff member or other designated advisor (one month)
- Up-date FEP with agreed actions time-lined for improvement (three months)

8.14. Farms which receive a D grade are on a pathway to exit CIG if there is no improvement and will be subject to the following (with timeframe):
- Notify CIG (immediately)
- One on one visit with CIG staff member or other designated advisor (one week)
- Up-date FEP with agreed actions time-lined for improvement (one month)

9. Reporting

9.1. CIG will provide an Annual Report to Environment Canterbury. This report will include an annual update or summary of:
- Location of farms and extent of land administered by CIG
- Estimated nitrogen and phosphorus loss across each catchment within the Management Area
- Audit outcomes including aggregate of audit grades
- Actions taken in response to any C or D audit grades
- Any farms who have left CIG

10. Termination of membership

10.1. Given that CIG is a farmer-controlled farm plan audit group, it is very important to manage conflicts of interest or social difficulties that may arise if individual members do not meet the requirements of this EMS. The circumstances in which a farm will

19 Schedule 2(1)(f)
no longer be accommodated by this EMS are therefore clearly set out in policy, so that the burden of deciding this does not fall on governance.

10.2. Policy for continued membership:

All members of CIG must undertake the following:

- Provide necessary information (as outlined in this EMS)
- Meet required timelines for preparation and audit of FEPs
- Not receive two sequential D audit grades within 5 consecutive years
- Not receive three sequential C (or combination of C or D) audit grades within 5 consecutive years

If these requirements are not met membership will be automatically surrendered within three months of:

- Timeline not met
- Issuing of final C or D grade

10.3. This EMS will be supported by a Membership Contract. This document will be drafted such that any farm which is unable to meet the criteria of the Policy for continued membership will automatically exit CIG\textsuperscript{20}.

\textsuperscript{20} Schedule 2(1)(i)
## Appendix 1 – Register of Prospective Members

<table>
<thead>
<tr>
<th>CIG ID no.</th>
<th>Farm Name</th>
<th>Point of Contact</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Phoebe Plains Ltd.</td>
<td>Robb Macbeth</td>
<td>021 736 580</td>
<td><a href="mailto:robb.macbeth@farmside.co.nz">robb.macbeth@farmside.co.nz</a></td>
</tr>
<tr>
<td>2</td>
<td>P &amp; D Fitzgibbon</td>
<td>Phil Fitzgibbon</td>
<td>027 319 8002</td>
<td><a href="mailto:philfitz69@gmail.com">philfitz69@gmail.com</a></td>
</tr>
<tr>
<td>3</td>
<td>Mt Manakau Holdings Ltd</td>
<td>Pip Sidey</td>
<td>021 058 3593</td>
<td><a href="mailto:sid.pip@xtra.co.nz">sid.pip@xtra.co.nz</a></td>
</tr>
<tr>
<td>4</td>
<td>Fenwick</td>
<td>Wayne Yates</td>
<td>021 205 9111</td>
<td><a href="mailto:yateswd@amuri.net">yateswd@amuri.net</a></td>
</tr>
<tr>
<td>5</td>
<td>Ridgeway</td>
<td>James Paterson</td>
<td>027 319 8781</td>
<td><a href="mailto:j.paterson@xtra.co.nz">j.paterson@xtra.co.nz</a></td>
</tr>
<tr>
<td>6</td>
<td>Teece Family farms</td>
<td>Hamish Chamberlain</td>
<td>027 533 5550</td>
<td><a href="mailto:hamish@teecefamilyfarms.com">hamish@teecefamilyfarms.com</a></td>
</tr>
<tr>
<td>7</td>
<td>Willowgrove</td>
<td>Ben Ensor</td>
<td>027 566 8100</td>
<td><a href="mailto:ssc0@outlook.co.nz">ssc0@outlook.co.nz</a></td>
</tr>
<tr>
<td>8</td>
<td>Kinnaber</td>
<td>Paul Chambers</td>
<td>027 527 6909</td>
<td><a href="mailto:karlandpaul@gmail.com">karlandpaul@gmail.com</a></td>
</tr>
<tr>
<td>9</td>
<td>Manawai Dairies Ltd</td>
<td>Ben Lamont</td>
<td>027 319 5056</td>
<td><a href="mailto:bj.lamonts@xtra.co.nz">bj.lamonts@xtra.co.nz</a></td>
</tr>
<tr>
<td>10</td>
<td>ScottFresh</td>
<td>Ben Scott</td>
<td>027 488 4946</td>
<td><a href="mailto:bens@scottfresh.co.nz">bens@scottfresh.co.nz</a></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>Nick Ensor</td>
<td>027 491 3672</td>
<td><a href="mailto:d.n.ensor@gmail.com">d.n.ensor@gmail.com</a></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>Mike Norton</td>
<td>03 319 8783</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Inverness (irrig. block)</td>
<td>Charles Wiffen</td>
<td>27 439 9720</td>
<td><a href="mailto:charleswiffenwines@xtra.co.nz">charleswiffenwines@xtra.co.nz</a></td>
</tr>
<tr>
<td>14</td>
<td>Glenturret Farm</td>
<td>Nick Harris</td>
<td>27 227 2001</td>
<td><a href="mailto:nick@hellers.co.nz">nick@hellers.co.nz</a></td>
</tr>
<tr>
<td>15</td>
<td>Apollo Dairy Ltd.</td>
<td>James Daly</td>
<td>027 668 8041</td>
<td><a href="mailto:nickandjames@clear.net.nz">nickandjames@clear.net.nz</a></td>
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<tr>
<td>16</td>
<td>Kirkland Farming Ltd</td>
<td>Blair Kirkland</td>
<td>27 471 4330</td>
<td><a href="mailto:kirklandfarming@gmail.com">kirklandfarming@gmail.com</a></td>
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<tr>
<td>17</td>
<td></td>
<td>Geoff O’Carroll</td>
<td>03 319 8629</td>
<td><a href="mailto:ocarrolscanning@xtra.co.nz">ocarrolscanning@xtra.co.nz</a></td>
</tr>
<tr>
<td>18</td>
<td>The Sisters Farming Ltd</td>
<td>Hamish Haugh</td>
<td>27 270 3952</td>
<td><a href="mailto:hamish.haugh@xtra.co.nz">hamish.haugh@xtra.co.nz</a></td>
</tr>
<tr>
<td>19</td>
<td>C&amp;J Farms Ltd</td>
<td>Josh Bolderston</td>
<td>27 420 9067</td>
<td><a href="mailto:joshporawai@gmail.com">joshporawai@gmail.com</a></td>
</tr>
<tr>
<td>20</td>
<td>Huyton Farm Ltd</td>
<td>Andrew Newton</td>
<td>27 208 2247</td>
<td><a href="mailto:newtonfamily@scorch.co.nz">newtonfamily@scorch.co.nz</a></td>
</tr>
<tr>
<td>21</td>
<td></td>
<td>Chris Mulcock</td>
<td>027 227 9066</td>
<td><a href="mailto:mulcockc@amuri.net">mulcockc@amuri.net</a></td>
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</tbody>
</table>