23 January 2026

Environment Canterbury Regional Council
Kaunihera Taiao ki Waitaha

Waimakariri Irrigation Limited
Attn To: Brent Walton
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Rangiora 7440

Customer Services
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200 Tuam Street
PO Box 345
Christchurch 8140
E. ecinfo@ecan.govt.nz
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Dear Brent,

Correction to Resource Consent Decision

Record Number: CRC252218
Applicant Name: Waimakariri Irrigation Limited
Activity Description: To discharge contaminants to land.

It has come to our attention that there was an error in the above consent. As such, please destroy the document currently in your possession and replace it with the enclosed corrected decision document.

Condition (3) currently reads:

Aggregated Outside NPA Loss	means the aggregated total loss of all Individual Property Losses for all Properties (or parts of Properties) that are located outside of the Nitrate Priority Area and as further defined in **Condition (4)(a)(vi)(B).**
Aggregated Sub-Area Loss	means the aggregated total loss of all Individual Property Losses for all Properties (or parts of Properties) that are located within a Sub-Area and as further defined in **Condition (4)(a)(vi)(A).**

Condition (3) has been amended to read:

Aggregated Outside NPA Loss	means the aggregated total loss of all Individual Property Losses for all Properties (or parts of Properties) that are located outside of the Nitrate Priority Area and as further defined in **Condition (4)(a)(v)(B).**
Aggregated Sub-Area Loss	means the aggregated total loss of all Individual Property Losses for all Properties (or parts of Properties) that are located within a Sub-Area and as further defined in **Condition (4)(a)(v)(A).**

Queries
For all queries please contact our Advisory Team quoting your CRC number above.

Yours sincerely

Samantha Wallace
Regulatory Support Officer

RESOURCE CONSENT CRC252218

Under Section 104 of the Resource Management Act 1991

The Canterbury Regional Council (known as Environment Canterbury)

GRANTS TO:	Waimakariri Irrigation Limited
A DISCHARGE PERMIT (S15):	To discharge contaminants to land.
COMMENCEMENT DATE:	10 Dec 2025
DATE CONSENT NUMBER ISSUED:	10 Dec 2025
EXPIRY DATE:	01 Jul 2037
LOCATION:	WIL water use area in Waimakariri District

SUBJECT TO THE FOLLOWING CONDITIONS:

Scope

1 This consent authorises the discharge onto or into land where contaminants may enter water arising from farming activities on Properties:

a. Listed in Schedule CRC252218A or Schedule CRC252218B, as are to be completed by the consent holder and submitted to Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) within one month of the Commencement Date, and as may be amended from time to time in accordance with Condition (12); and

b. Located within the area shown on Plan CRC252218A as 'CRC252218 Nutrient Discharge Area'.

Advice Note 1: *Schedule CRC252218A and CRC252218B as provided for in this resource consent at the Commencement Date is a template. Schedule shall be completed and submitted in accordance with this Condition (1), and may be updated from time to time in accordance with Condition (12). Any such replacement Schedules shall then apply.*

Advice Note 2: *The schedules and plans referred to in all Conditions of this consent (and as may be amended from time to time) form part of this consent.*

Advice Note 3: *The definition of the schedules (including the schedule names) are identified in the Index, which is attached to and forms part of this consent.*

2 The consent holder shall maintain a record of Properties where the relevant Property is managed under its own individual resource consent held by a third party, other than the consent holder. These are to be listed in Schedule CRC252218C.

Advice Note: *The consent holder has no compliance obligations in relation to Schedule CRC252218C Properties, other than the requirement to maintain a record of such Properties*

(typically being Properties supplied with water by the WIL Irrigation Scheme but where nutrient losses are not managed by the consent holder). Such Properties will be subject to their own consent obligations and separate audit processes as required by the relevant third-party consent(s).

Definitions

3 For the purposes of this consent:

Aggregated Outside NPA Loss	means the aggregated total loss of all Individual Property Losses for all Properties (or parts of Properties) that are located outside of the Nitrate Priority Area and as further defined in Condition (4)(a)(v)(B).
Aggregated Sub-Area Loss	means the aggregated total loss of all Individual Property Losses for all Properties (or parts of Properties) that are located within a Sub-Area and as further defined in Condition (4)(a)(v)(A).
Alternative Methodology	means the alternative methodology that may be implemented by the consent holder for the purposes of assessing the WIL GMP Loss and as detailed in Condition (6).
Canterbury Certified Farm Environment Plan Auditor Manual	means the Canterbury Certified Farm Environment Plan Auditor Manual (dated November 2022), prepared to provide guidance and procedures for undertaking Farm Environment Plan Audits
CDWPZ	means a Community Drinking Water Protection Zone as identified in Schedule 1 of the Canterbury Land and Water Regional Plan.
CDWPZ Impacted Land	Land that is included in a CDWPZ, plus any other land within the same paddock where it not possible to treat such further land on a different management basis for the purposes of Condition (24). ***Advice Note**:* *For example:* • *it will typically not be possible to provide differential stock grazing within the same paddock; and* • *it may be possible to provide differential management for a cropping or horticultural operation in the same paddock.*
Certified Freshwater Farm Plan	means a freshwater farm plan certified under section 217G of the Resource Management Act 1991 (as amended from time to time in accordance with section 217E(2) or (3)), or as provided for by the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 or any future national policy statement.
Commencement Date	means the date that this consent commenced for the purposes of section 116 of the Resource Management Act 1991.

Dairy Land	means land used for the grazing of dairy cattle for producing milk, but excluding Dairy Support Land. ***Advice Note:*** *Dairy Land is intended to capture Farming Type "Dairy" in Table 8j of the Canterbury Land and Water Regional Plan.*
Dairy Support Land	means land used for grazing dairy support cattle, being cattle that are: • farmed for producing milk but are not being milked (for example, because they are heifers or have been dried off); and • are being grazed on land that is not Dairy Land ***Advice Note:*** *Dairy Support Land forms part of "Other Land" for the purposes of this consent.*
Farming Enterprise	means an aggregation of parcels of land held in single or multiple ownership (whether or not held in common ownership) that constitute a single operating unit for the purpose of nutrient management.
Farm Environment Plan	means a Farm Environment Plan for properties listed in Schedule CRC252218A, in the form set out in Schedule CRC252218D: • as may be amended following mutual agreement with the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz); or should the use of a Certified Freshwater Farm Plan be required or available on the basis it is certified and available for use then the consent holder may, as may be mutually agreed with the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) elect to use such a plan (and which will then take the place of Schedule CRC252218D).
Farm Management Plan	means a Farm Management Plan for properties listed in Schedule CRC252218B in the form set out in Schedule CRC252218E: • as may be amended following mutual agreement with the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz); or should the use of a Certified Freshwater Farm Plan be required or available on the basis it is certified and available for use then the consent holder may, as may be mutually agreed with the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) elect to use such a plan (and which will then take the place of Schedule CRC252218E).

Good Management Practice	means the practices described in the document entitled "*Industry-agreed Good Management Practices relating to water quality*" - dated 18 September 2015.
Individual Property Loss	means the nitrogen loss calculated for each individual Property in accordance with Conditions (5) to (8)
Nitrate Priority Area	means the Nitrate Priority Area as shown on Plan CRC252218A
Other Land	means land that is not Dairy Land that is used for any agricultural and horticultural purpose and including Dairy Support Land but does not include non-farmed/ineffective areas. ***Advice Note:*** *Other Land is intended to capture Farming Type "All other" in Table 8j of the Canterbury Land and Water Regional Plan.*
Permitted Activity Criteria	means any property where: • the total area irrigated is 50 hectares or less and no more than 10 hectares above what was irrigated at 20 July 2019; and • the total area used for Winter Grazing is 5 hectares or less.
Property	means any contiguous area of land, including land separated by a road or river, held in one or more than one ownership, that is utilised as a single operating unit, and may include one or more certificates of title.
Sensitive receptor	Areas of wetland, surface water bodies and riparian areas, sites of cultural significance and, in the case of any land located within a Community Drinking Water Protection Zone, the Community Drinking Water Supply.
Sub-Area	means a Sub-Area as shown on Plan CRC252218A
WIL PA Equivalent Farm	any property that meets the Permitted Activity Criteria where the consent holder has chosen to manage the property as a WIL PA Equivalent Farm.
WIL GMP Loss	means the nitrogen loss below the root zone, as: • modelled using the most recent version of OVERSEER® for a Property or Farming Enterprise (as might apply) based on the farming activity carried out for the 2019 year (provided that any intensification included in the assessment must have occurred no later than 20 July 2019), that has been run through either the Environment Canterbury Farm Portal or the Environment Canterbury Equivalent Pathway tool; or • as assessed using the Alternative Methodology

	***Advice Note**: Use of the WIL GMP Loss is intended to be consistent with the requirements of Policy 8.4.29 of the Canterbury Land and Water Regional Plan as at the Commencement Date (but with the use of 2019 input data, as is consistent with the data available to the consent holder).*
WIL Irrigation Scheme	means the irrigation scheme operated by the consent holder that takes water from the Waimakariri River for the purposes of supplying water to land between the Waimakariri and Ashley Rivers.
Winter Grazing	means the grazing of cattle within the period 1 May to 30 September, where the cattle are contained for break-feeding of in-situ brassica and root vegetable forage crops or for consuming supplementary feed that has been brought to the property.

Unless the context requires otherwise, words used in the singular include the plural, the plural includes the singular.

Schedules of Properties Covered by this Consent

4 Schedules CRC252218A, CRC252218B and CRC252218C as may be amended from time to time in accordance with Condition (12), shall specify:

a. In the case of Schedule CRC252218A and CR252218B Properties:

i. the area (in hectares) of any Property that is located in a Sub-Area;

ii. the area (in hectares) of any Property that is located outside of the Nitrate Priority Area;

iii. for the areas identified in Condition (4)(a)(i), the area of each Property that is:

a. dairy land;

b. other land

c. ineffective/not farmed

iv. the loss that has been calculated for each Schedule CRC252218A Property (only) in accordance with Conditions (5) to (8) (Individual Property Load);

v. a total aggregated nutrient discharge loss, being the sum of the Individual Property Losses for all Schedule CRC252218A Properties located:

a. in each Sub-Area (an Aggregated Sub-Area Loss); and

b. outside of the Nitrate Priority Area (the Aggregated Outside NPA Loss).

vi. a nominal loss of '-' for Schedule CRC252218B Properties

b. In the case of Schedule CRC252218C Properties, the relevant third-party resource consent(s) and the area covered by those consents.

***Advice Note 1:** The consent holder may also manage nutrient discharge on Properties under this consent that are not supplied with irrigation water from the WIL Irrigation Scheme.*

Advice Note 2: *The purpose of assessing each Individual Property Loss is to inform the calculation of each Aggregated Sub-Area Loss and the Aggregated Outside NPA Loss. Individual Properties and Farming Enterprises are not subject to or limited to an Individual Property Loss (or a Farming Enterprise loss).*

Individual Property Loss Assessment for Certain Properties

5 For the purposes of determining each Aggregated Sub-Area Loss and the Aggregated Outside NPA Loss for all Schedule CRC252218A Properties, an Individual Property Loss shall be determined by calculating a WIL GMP Loss for each Property.

Alternative Methodology for the Calculation of the WIL GMP Loss

6 The consent holder may develop an alternative methodology (Alternative Methodology) to calculate the WIL GMP Loss or a nutrient loss rate based on good management practice for a Property or Farming Enterprise instead of using either the Environment Canterbury Farm Portal or the Environment Canterbury Equivalent Pathway tool. If the consent holder elects an Alternative Methodology:

a. The Alternative Methodology shall:

   i. be designed to calculate a nutrient discharge loss that is equivalent to or able to be used in a manner that is consistent with the loss that would be calculated using the Schedule 28 Good Management Practice Modelling Rules from the Canterbury Land and Water Regional Plan (as at the Commencement Date) for the 2019 year; and

   ii. use the most recent version of OVERSEER® available at the time of calculation and be reproducible.

b. Any material amendment to a certified Alternative Methodology shall be submitted for re certification prior to implementation. The consent holder shall maintain a record of versions and change history for any certified Alternative Methodology and make these records available to the Canterbury Regional Council upon request; and

c. The consent holder shall submit the Alternative Methodology to the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) for certification that it meets the requirements of this Condition (6). The Canterbury Regional Council shall confirm the certification decision within 20 working days, and the Alternative Methodology may only be implemented following certification.

Reductions

7 Each Individual Property Loss calculated in accordance with Condition (5) and (6) shall be further reduced, for that part of any Property in a Sub-Area from 1 January 2030:

a. For Dairy Land, by 20 percent

b. For Other Land, by 5 percent

and provided that for:

c. Dairy Land, if the reductions required by Condition (7)(a) for a Property (or parts of a Property) are less than 5 kilograms of nitrogen per hectare per year then the reductions required by Condition (7)(a) shall not apply; or

d. Other Land, if the reductions required by Condition (7)(b) for a Property (or parts of a Property) are less than 1 kilograms of nitrogen per hectare per year then the reductions required by Condition (7)(b) shall not apply.

Advice Note 1: *The purpose of Condition (7) is to implement Table 8j of the Canterbury Land and Water Regional Plan (as at the Commencement Date).*

Advice Note 2: *No reduction is required for ineffective or not farmed areas.*

8 For the purposes of assessing any Individual Property Loss, the Aggregated Sub-Area Loss and the Aggregated Outside NPA Loss, if a Property:

a. Is located within more than one Sub-Area; and/or

b. Is located both inside and outside the Nitrate Priority Area,

then the loss and any reduction requirements shall be allocated on a pro rata basis against the relevant land area(s).

Losses for WIL PA Equivalent Farms to be Included in Schedule CRC252218B

9 For any Property that the consent holder is able to and has chosen to manage as a WIL PA Equivalent Farm, the consent holder shall record the property in Schedule CRC252218B with a stated nominal loss of "-".

Advice Note: *WIL PA Equivalent Farms are not required to comply with any nitrogen losses under this consent. Their inclusion in Schedule CRC252218B is for the purposes of identifying all properties where nutrients are managed by the consent holder as if permitted activity rules applied. Other controls in this consent still apply.*

Provision for Farming Enterprises

10 An Individual Property Loss may be assessed at a Farming Enterprise level. All references to "Property" in Conditions (5) to (9) shall be regarded as being to the "Farming Enterprise".

Scheme Loss Limits

11 For:

a. Each Sub-Area, modelled losses of nitrogen shall not exceed the relevant Aggregated Sub-Area Loss; and

b. The land outside of the Nitrate Priority Area, modelled losses of nitrogen shall not exceed the Aggregated Outside NPA Loss.

Addition and Removal of Properties from Schedules CRC252218A, CRC252218B and Schedule CRC252218C

12 A Property or part of a Property may be added to or removed from Schedule CRC252218A, CRC252218B or Schedule CRC252218C, provided that:

a. The consent holder provides by 1 December in any year that a change occurs (either as a part of the reporting required by Condition (34) or separately):

i. the updated Schedule(s) to the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz), including:

ii. the revision number of the relevant updated Schedule(s); and

iii. for Properties or parts of a Property added or removed from Schedule CRC252218A, an updated version of the Schedule that includes, the change and any updated Aggregate Sub Area Loss and/or Aggregated Outside NPA Loss

iv. an updated consent wide map showing all Properties managed under this consent and the relevant farm boundaries in a commonly used Geographic Information System (GIS) format;

v. for any Property or part of a Property that is no longer to have its losses managed under Schedule CRC252218A or CRC252218B, information on the loss that shall be allocated to the Property or part of a Property.

and

b. In the case of any Property or part of a Property being removed from Schedule CRC252218A, the consent holder shall notify the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) within 20 working days of the Property or part of the Property being removed.

Audited Self-Management Programme

13 From the Commencement Date, the consent shall comply with the Audited Self-Management Programme, including the Environmental Management Strategy that was developed in accordance with permit CRC184861 and operative immediately prior to that date. In complying with this Condition (13), the consent holder shall consult with the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) to determine how compliance and the transitional regime for any replacement Audited Self-Management Programme or Environmental Management Strategy as required by Condition (14) are to be implemented (and which shall form part of the conditions of this consent).

14 Within 3 months of the Commencement Date, the consent holder shall prepare and comply thereafter with an Audited Self-Management Programme including an Environmental Management Strategy that has been prepared in accordance with Condition (15).

15 The Environmental Management Strategy required by Condition (14) shall:

a. Identify the roles and responsibilities of the persons and entities involved in the management of the Waimakariri Irrigation Limited Environmental Programme and the implementation of this resource consent;

b. Set and implement environmental objectives, targets and methods to ensure:

i. this resource consent CRC252218 is complied with; and

ii. each Aggregated Sub-Area Loss and the Aggregated Outside NPA Loss are assessed in accordance with the methodology required by this consent and complied with; and

iii. the consent holder has strategies and processes in place to meet the following reduction targets that are likely to apply from 1 January 2040 (being inclusive of any reduction required by Condition 7 that apply to Schedule CRC252218A land within the Nitrate Priority Area:

a. or Dairy Land, by 30 percent; and

b. for Other Land, by 10 percent

provided that for:

c. Dairy Land, if the reductions required by Condition (15)(b)(iii)(A) for a Property (or parts of a Property) are less than 8.5 kilograms of nitrogen per hectare per year then the reductions required by Conditions (15)(b)(iii)(A) shall not apply; or

d. Other Land, if the reductions required by Condition (15)(b)(iii)(B) for a Property (or parts of a Property) are less than 2.2 kilograms of nitrogen per hectare per year then the reductions required by Conditions (15)(b)(iii)(B) shall not apply.

Advice Note: *The consent holder is not required to make the reductions required by Condition (15)(b)(iii) prior to the expiry date of this consent. The purpose of Condition (15)(b)(iii) is to make sure the consent holder has a programme of improvement that aligns with the Regional planning framework and as will be relevant to future consent renewals.*

c. Require the management of nutrient losses on each Property be managed through a Farm Management Plan, Farm Environment Plan, or Certified Freshwater Farm Plan (as might apply) as required by Conditions (17) to (23), and if applicable an audit process in accordance with this resource consent;

d. Require, for Schedule CRC252218A Properties that are required to hold a Farm Environment Plan, that such Properties:

i. are achieving an 'A' or ‘B’ audit; or

ii. where only achieving a ‘C’ or a ‘D’ audit, have active measures in place to ensure an ‘A’ or ‘B’ audit is achieved at the next audit;

e. Ensure the consent holder has robust audit and reporting procedures in place for Schedule CRC252218A Properties, that meet the Canterbury Certified Farm

Environment Plan Auditor Manual requirements, to ensure a high level of compliance with Farm Environment Plans;

f. Include procedures to ensure the identification of effects on sensitive receptors are appropriately avoided, remedied or mitigated, including:

   i. requiring that stock are excluded from waterbodies in accordance with Regional Council rules, any granted resource consent(s) and the Resource Management (Stock Exclusion) Regulations 2020; and

   ii. requiring the establishment of vegetated riparian strips to minimise nutrient, sediment and microbial pathogen loss to waterbodies.

g. Be consistent with the requirements in relation to CDWSZ provided for in Condition (24);

h. Be consistent with the Environmental Monitoring Plan and associated requirements provided for in Conditions (25) to (33);

i. Provide reproducible methodology, including procedures on good data management, on how each Aggregated Sub-Area Loss and the Aggregated Outside NPA Loss have been calculated and including detail on any methodology required under Conditions (4) to (12);

j. Include detail on how the management of Properties joining or leaving the scheme is to occur (including information on the loss that is to be allocated to each such Property); and

k. Include the total number of Farm Environment Plans/Certified Freshwater Farm Plans managed by the consent holder.

l. Provide a process for the review of the Environmental Management Strategy.

16 When preparing the Environmental Management Strategy or seeking amendments to any of the matters listed in Condition (15), the consent holder shall submit the Environmental Management Strategy and any changes to the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) for certification that the Environmental Management Strategy or changes (as might apply) meet the requirements of Condition (15). The Canterbury Regional Council shall confirm the certification decision within 20 working days. The Environmental Management Strategy and any changes shall only be implemented following certification by the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz).

Farm Environment Plans

17 All Schedule CRC252218A Properties shall maintain a Farm Environment Plan or Certified Freshwater Farm (as might apply).

18 All Farm Environment Plans as required by Condition (17) shall be audited within the frequency determined by either:

a. The audit grade received in the previous audit, as provided for in Table CRC2522181 below:

Table CRC2522181: Audit frequency

Audit Grade	Audit frequency	
	No material change in management	Material change in management
A	4 years	1 year
B	2 years	1 year
C	1 year	In the following year
D	6 months	Within 6 months
Note: A "year" is the period from 1 July to the following 30 June.		

provided that the consent holder may consult with the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) for the purposes of developing an agreed transitional regime for the audit frequencies provided for in Table CRC2522181 (given the reporting date being implemented by the consent holder at the Commencement Date). Any agreed transitional regime will apply in place of Table CRC2522181; or

b. In the case of Properties added to Schedule CRC252218A, within one year of the Property being added to that Schedule; or

c. In the case of a Property located within a CDWPZ where the risk level increased, within one year of the completion of the updated risk assessment; or

d. Where there are exceptional circumstances, and the consent holder is able to obtain an approved exemption (in writing) from the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) from the frequencies of audits identified in Conditions (18)(a) to (c).

   For the purposes of this condition 'exceptional circumstances' may include any event or action that reasonably prevents an audit being undertaken – including but not limited to any event of force majeure, a severe extraordinary event, the death or serious illness of a shareholder or shareholder's representative(s) or their dependents, biosecurity or natural hazards, or recent Property sales or lease changes;

   or

e. Should a Certified Freshwater Farm Plan be certified and available for use then the consent holder shall comply with the required timings for audits provided for in that plan (and if no audit process is provided for then the consent holder shall comply with timeframes for audit set out in the Conditions (18)(a) to (d)).

Farm Environment Plan Audit Process

19 Farm Environment Plan audits shall be conducted in accordance with (as might apply):

a. The Canterbury Certified Farm Environment Plan Auditor Manual or such other methodology (including any subsequent version of the 'Certified Farm Environment Plan Auditor Manual', November 2022) as may be mutually agreed with the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz), including the timing and implementation of such other methodology; and

b. Any manual or such other methodology that describes the audit and determination of Advanced Mitigation as may be mutually agreed with the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz), including the timing and implementation of such methodology.

20 The audit of any Certified Freshwater Farm Plan shall be undertaken in accordance with any associated guidance manual, or if no audit process is provided for, or no such guidance material available, the audits shall be undertaken on the basis of applying the 'Certified Farm Environment Plan Auditor Manual' with any necessary modifications as may be mutually agreed with the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz).

21 If requested by the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz), the consent holder shall facilitate the Canterbury Regional Council undertaking spot checks of any Farm Environment Plan Auditors previously approved by Canterbury Regional Council. This shall include providing copies of any audits and the relevant supporting information that are available to the consent holder.

Farm Management Plans

22 All Schedule CRC252218B Properties shall maintain a Farm Management Plan that is prepared in accordance with Schedule CRC252218E.

23 The Farm Management Plan template identified in Schedule CRC252218E:

a. May be amended following mutual agreement with the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz); or

b. Should the use of a Certified Freshwater Farm Plan be required or available on the basis it is certified and available for use then the consent holder may, as may be mutually agreed with the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) elect to use such a plan (and which will then take the place of Schedule CRC252218E).

Community Drinking Water Supplies

24 For any Property falling partly or wholly within a CDWPZ, the consent holder shall ensure:

a. Discharges from the Property are assessed and managed in discussion with the impacted shareholder(s) and the Community Drinking Water Supplier in accordance with Schedule CRC252218F, and in a manner that is consistent with the Resource

Management (National Environmental Standard for Sources of Human Drinking Water) Regulations 2007, with the assessment completed:

i. within three months of the Commencement Date for all properties managed by the Scheme and falling partly or wholly within a CDWPZ at that date;

ii. at least once every three years for Properties with existing CDWPZ risk assessments;

iii. within three months of a Property within a CDWPZ being added to Schedule CRC252218F (including a new CDWPZ being added to Schedule 1 of the Canterbury Land and Water Regional Plan) that have not been previously assessed in accordance with Schedule CRC252218F);

iv. within three months of the consent holder becoming aware of information that may materially impact on any assessment previously undertaken; and

v. within three months of any change to the area of an existing CDWPZ taking formal effect for the purposes of Schedule 1 of the Canterbury Land and Water Regional Plan.

b. Where a Community Drinking Water Protection Zone Risk Assessment identifies the Property as:

i. 'Low Risk'; there shall be no further management actions required in relation to the farming activities able to occur on the CDWPZ Impacted Land (subject to compliance with this resource consent and permitted activity rules related to the CDWPZ);

ii. 'Medium Risk'; the farming activities able to occur on the CDWPZ Impacted Land shall be managed to (in addition to compliance with this resource consent and permitted activity rules related to the CDWPZ):

a. avoid the discharge of solid or liquid effluent (including animal-based manures) within 20 metres of the CDWPZ;

b. ensure all irrigation on the CDWPZ Impacted Land in the CDWPZ is undertaken using good management practice to minimise drainage to groundwater; and

c. implement any other site-specific recommendations that are consistent with managing Medium Risk activities and that are identified in the CDWPZ Risk Assessment.

iii. 'High Risk'; the farming activities able to occur on the CDWPZ Impacted Land shall be managed to (in addition to compliance with this resource consent and permitted activity rules related to the CDWPZ):

a. avoid the discharge of solid or liquid effluent (including animal-based manures) within 20 metres of the CDWPZ;

b. avoid any Winter Grazing within the CDWPZ Impacted Land;

c. ensure all irrigation on the CDWPZ Impacted Land in the CDWPZ is undertaken using good management practice to minimise drainage to groundwater;

d. ensure there is no increase in stocking rate or fertiliser application on the CDWPZ Impacted Land in the CDWPZ as compared to the latter of the date of the CDWPZ Risk Assessment or that occurring in 2019; and

e. implement any other specific recommendations that are consistent with managing 'Medium' and/or 'High Risk' activities and that are identified in the CDWPZ Risk Assessment,

c. All new CDWPZ Risk Assessments prepared after the Commencement Date are to be reviewed by a suitably qualified and experienced individual with experience in drinking water risk assessments prior to implementation of the required actions set out in the risk assessment for the Property.

d. Where a CDWPZ Risk Assessment review increases the risk status of a Property compared to previous assessments, the assessments, including any recommendations, are to be submitted to the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) prior to the implementation of the required actions set out in the risk assessment for the Property.

e. As a part of the Farm Environment Plan, Farm Management Plan or Certified Freshwater Farm Plan (as might apply) for any Property located within a CDWPZ, there shall be additional requirements:

i. to include an objective that seeks to ensure land located within the CDWPZ is managed to prevent deterioration of drinking water from activities occurring on that land; and

ii. for the Property Owner to maintain records to demonstrate all agreed actions are being implemented,

Without limiting Condition (24)(b), the consent holder shall, as soon as practicable, and in all cases within two working days, notify relevant Community Drinking Water Supplier, and the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz), if it becomes aware of an "Event" that may have an adverse effect on the quality of the water in the community supply bore, with an "Event" for the purposes of this consent meaning, but not limited to, an incident within the well protection zones of the relevant community supply bore that may contaminate the water supply from the community supply bore - such as accidental release of pollutants or excessive stock access, combined with the saturation of soil beyond the water retaining capacity (e.g. over-irrigation).

Advisory Note: *the level of mitigation required should apply based on whichever contaminant has the highest risk rating.*

Groundwater and Surface Water Monitoring

25 Within six months of the Commencement Date, the consent holder shall submit to the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz), an Environmental Monitoring Plan that satisfies Conditions (26) to (33) and which has been prepared by suitably qualified and experienced person(s).

26 The objectives of the Environmental Monitoring Plan shall be to:

a. Obtain information that may assist in better understanding the effects of nutrient discharges from properties within Schedules CRC252218A and CRC252218B:

i. on groundwater nitrate-nitrogen concentrations over-time; and

ii. surface water quality and ecology over time.

b. Require the reporting of any water quality information gathered to the Canterbury Regional Council for the purpose of better informing future water resource management in the Command Area.

27 The consent holder shall undertake (either directly or through a catchment group) water quality sampling on a minimum of 14 bores at the locations generally shown on attached Plan CRC252218GW, with all bores being sampled quarterly for nitrate-nitrogen, ammonia-nitrogen, conductivity, pH and e-coli bacteria in accordance with the requirements of the National Environmental Monitoring Standards Water Quality – Part 1 Groundwater dated March 2019.

28 The consent holder shall undertake (either directly or through a catchment group) surface water quality and ecology monitoring in the following waterbodies at the locations generally shown on attached Plan CRC252218SW:

a. Burgess Stream;

b. Courtenay Stream;

c. Cust River;

d. Hunters Stream;

e. Ohoka Stream; and

f. Kaiapoi River / Silverstream.

29 Surface water monitoring shall include monitoring of the contaminants listed in Table CRC2522182, with monitoring to occur at the frequencies included in column 2 of Table CRC2522182.

Table CRC2522182

Contaminant	Sampling Frequency
Dissolved inorganic nitrogen (DIN)	Monthly
Dissolved reactive phosphorus (DRP)	
Nitrate-nitrogen	
Ammoniacal-nitrogen	
E. coli	
Periphyton Cover	

Periphyton Biomass	
Macroinvertebrates	Annual

30 The consent holder shall implement the Environmental Monitoring Programme within 12 months of the Commencement Date.

Review of Monitoring

31 The consent holder may undertake a review of the groundwater and surface water monitoring required under Conditions (28) and (29) at any time that may be determined by the consent holder.

32 If the consent holder elects to undertake a review under Condition (30), the consent holder will engage a suitably qualified and experienced person to:

a. Advise on any changes that might be made to add, remove or amend:

   i. groundwater monitoring bores;

   ii. surface water monitoring sites;

   iii. contaminant parameters; and/or

   iv. sampling frequency.

b. Prepare a Water Monitoring Amendment Report that:

   i. outlines the reasons for the change(s) proposed; and

   ii. confirms that the addition, removal or amendment will continue to enable the consent holder to meet the objectives set out in Condition (27);

   iii. consult with the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) in the preparation of the Water Monitoring Amendment Report; and

   iv. provide a copy of the of the Water Monitoring Amendment Report to the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) for certification that any change(s) proposed meet the requirements of this Condition and the objectives outlined in Condition (27).

33 The consent holder shall only implement the change(s) proposed to the monitoring required in Conditions (31) and (32) if written certification is provided by the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz).

Annual Reporting

34 The consent holder shall prepare an annual report describing the results of the audited self-management programme and the audits that have been conducted each year. The report shall include:

a. A summary of the Farm Environment Plan auditing programme, based on the audit reporting requirements in the Canterbury Certified Farm Environment Plan Auditor Manual for the completed year preceding the reporting period, including the following:

    i. the name of the FEP auditor(s);

    ii. a summary of the audit performance grading;

    iii. the number of FEP audits undertaken and the number of Properties receiving each audit grade;

    iv. the number of properties which have received repeated fail grades (being C or D grades in relation to a Farm Environment Plan or any fail grade as may be determined in consultation with the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) in relation to any Certified Freshwater Farm Plan) in the past 5 years (including a summary of the reasons and actions taken);

b. The total annual calculated loss of nitrogen from all Properties managed under this consent within the Command Area over the reported year, and including:

    i. the area (in hectares) managed under this consent in each Sub-Area;

    ii. the area (in hectares) managed under this consent outside of the Nitrate Priority Area;

    iii. the area for each Sub-Area that is:

        a. dairy Land;

        b. other Land

        c. ineffective or not farmed

    iv. the Individual Property Loss for each Property;

    v. a discussion of how the total aggregated nutrient discharge loss compare to

        a. the Aggregated Sub-Area Loss for each Sub-Area; and

        b. the Aggregated Outside NPA Loss for land outside of the Nitrate Priority Area.

c. A report on the environmental monitoring required in accordance with Conditions (25) to (33), including:

    i. all sampling undertaken over the previous 12-month period; and

    ii. a discussion on the nature of any changes over time.

d. If not provided separately by the consent holder, the information required by Condition (12) of this consent.

35 A copy of the annual report required under Condition (34) shall be submitted to the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) by 1 December 2025 and annually thereafter.

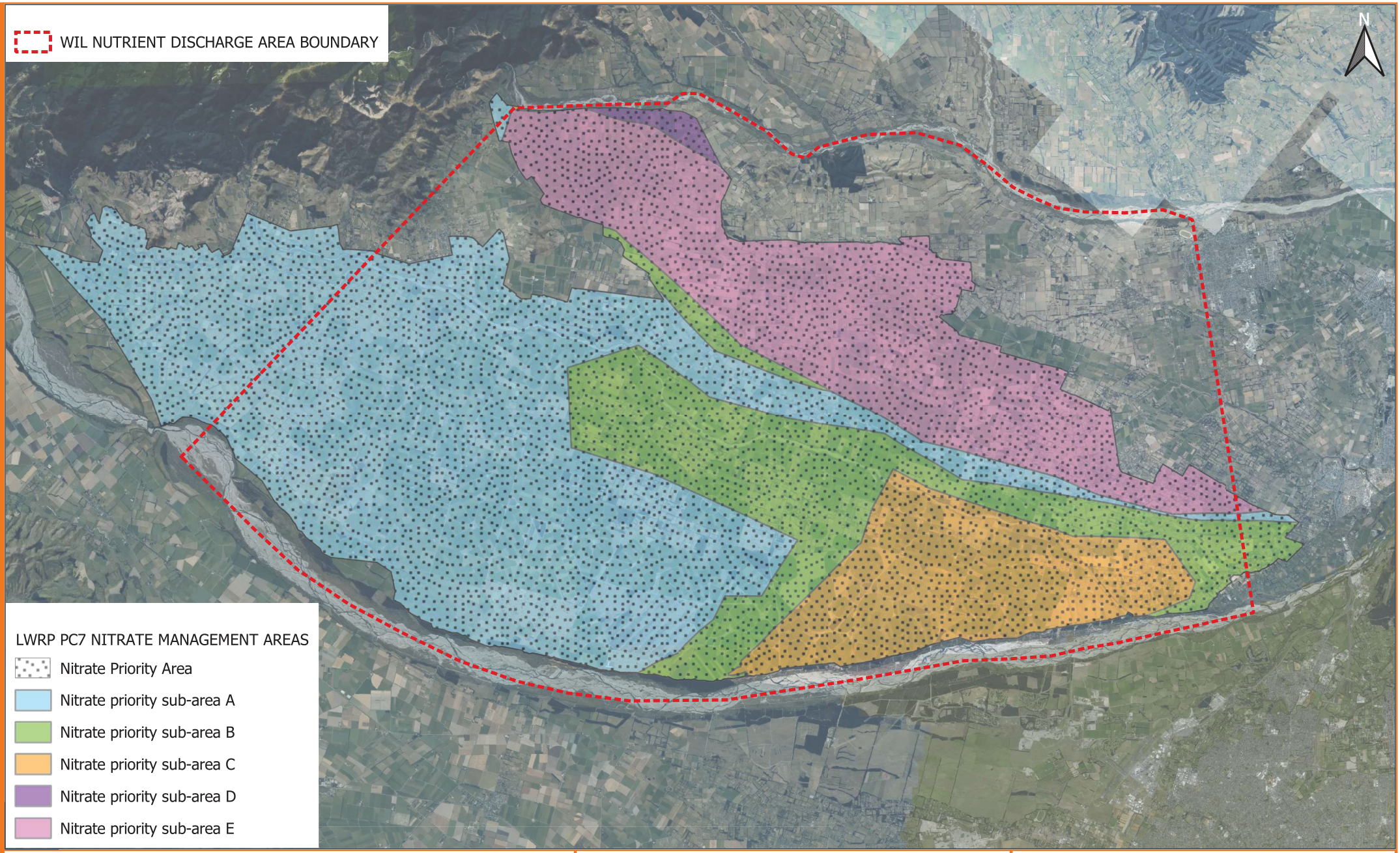
36 The reporting requirements in Condition (35) may be altered with the agreement of the Canterbury Regional Council, Attention: Compliance Manager (via ecinfo@ecan.govt.nz) to reflect the timing of the consent implementation between this consent and permit CRC184861.

Consent Review

37 The Canterbury Regional Council may once per year, on any of the last five working days of May or November, serve notice of its intention to review the Conditions of this consent for the purposes of dealing with any adverse effect on the environment which may arise from the exercise of the consent.

Issued at Christchurch on 23 January 2026

Canterbury Regional Council



S:\C\495\C49537\C49537_QGIS\PROJECT\C495372001_NutrientManagementAreas.qgz

PLAN CRC252218A – PLAN SHOWING THE NUTRIENT DISCHARGE AREA, NITRATE PRIORITY AREA SUB AREAS

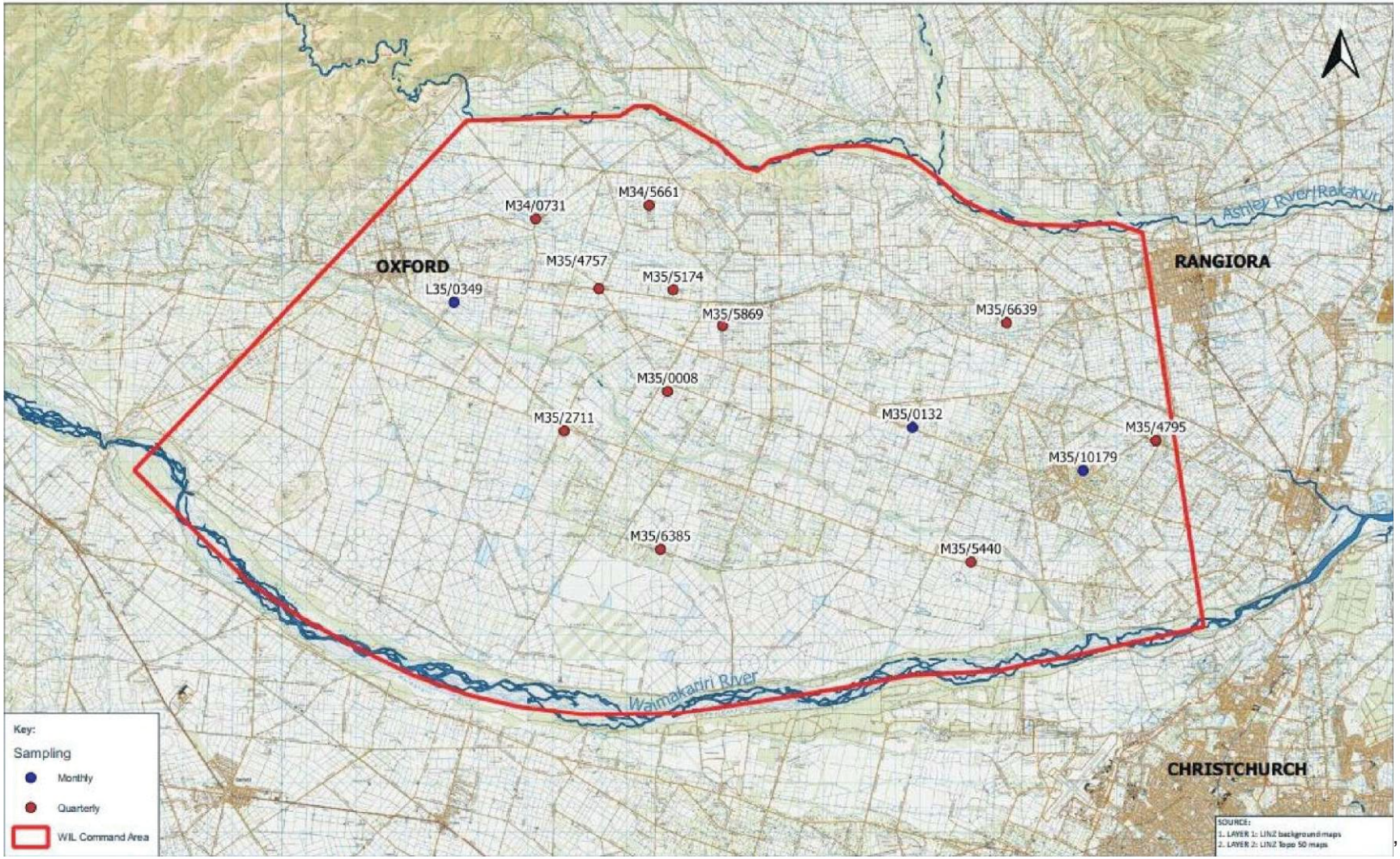
NOTES:
1. AERIAL IMAGERY SOURCED FROM THE LINZ DATA SERVICE [https://data.linz.govt.nz] AND LICENCED BY LINZ FOR RE-USE UNDER THE CREATIVE COMMONS ATTRIBUTION 4.0 INTERNATIONAL LICENCE.
2. NITRATE MANAGEMENT AREAS DOWNLOADED FROM ENVIRONMENT CANTERBURY GIS DATABASE

0 5 10 km

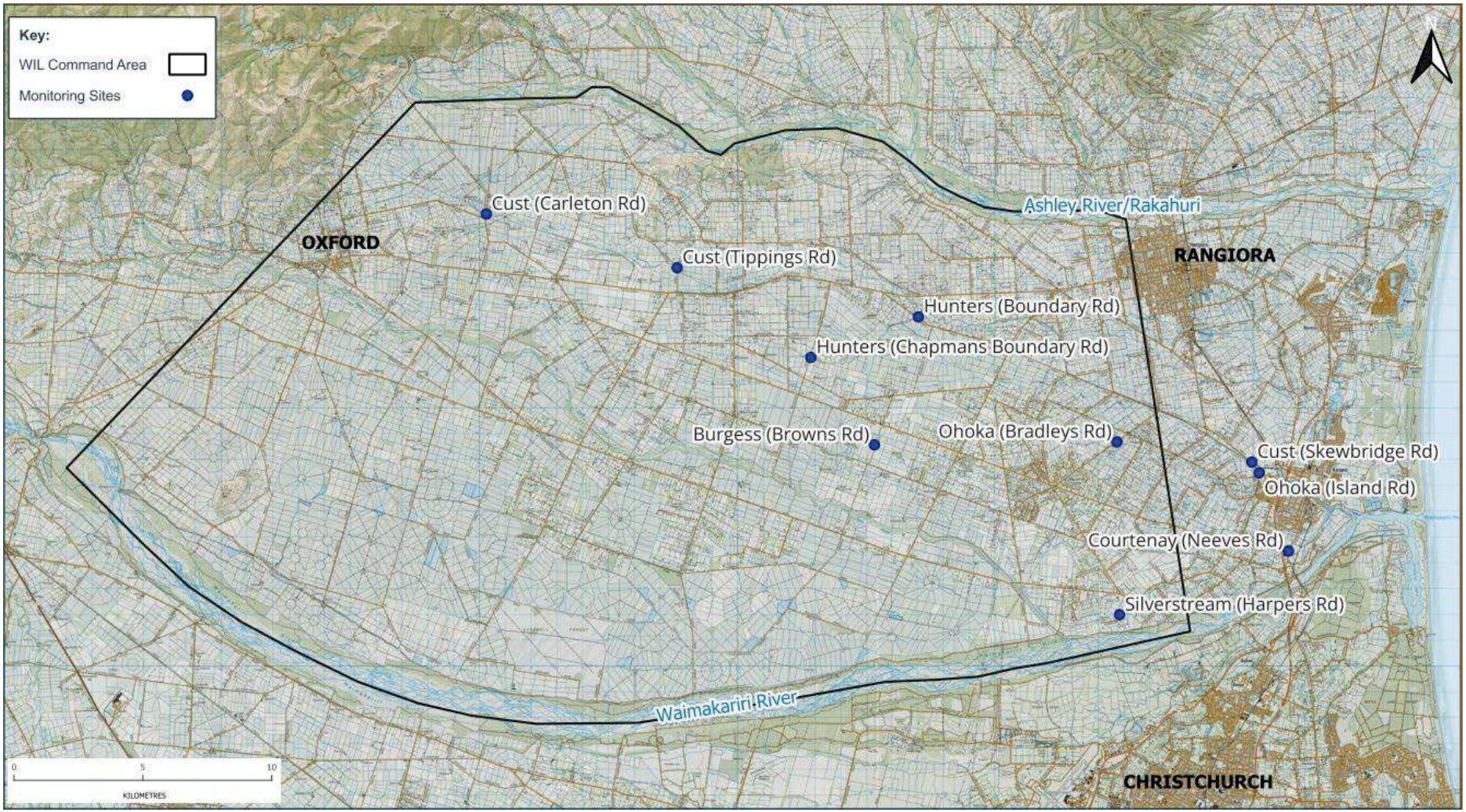
KILOMETRES (A4)
SCALE : 1:200,000

REVISION: 01 | DATE: DEC 25 | BY: ER
CLIENT: WIL

Plan CRC252218GW



Plan CRC252218SW



Schedule CRC252218A

	Area (ha)						Land Use Type (%)			WIL GMP Loss (kg N/yr)					
Property number	Nitrate priority sub-area A	Nitrate priority sub-area B	Nitrate priority sub-area C	Nitrate priority sub-area D	Nitrate priority sub-area E	Outside nitrate priority area	Dairy Land	Other Land	Ineffective/not farmed	Nitrate priority sub-area A	Nitrate priority sub-area B	Nitrate priority sub-area C	Nitrate priority sub-area D	Nitrate priority sub-area E	Outside nitrate priority area
Total															

Schedule CRC252218B

	Area (ha)						
Property number	Nitrate priority sub-area A	Nitrate priority sub-area B	Nitrate priority sub-area C	Nitrate priority sub-area D	Nitrate priority sub-area E	Outside nitrate priority area	Nominal Loss (kg N/yr)
							-
							-
							-
							-
							-
							-
							-
							-
							-
							-
							-
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Schedule CRC252218C

Property number	Resource consent(s)	Area covered by those consents (ha)

Schedule CRC252218D:

Definitions

In Schedule 7 the following definitions apply:

Management Area means the areas of farm management practice as set out below:

(a) Nutrients
(b) Irrigation
(c) Cultivation and soil structure
(d) Animal effluent and solid animal waste
(e) Waterbodies (riparian areas, drains, rivers, lakes, wetlands)
(f) Point sources – offal pits, farm rubbish pits, silage pits
(g) Water use (excluding water associated with irrigation) – stock water and wash-down water

Objective – means the overarching outcome sought in relation to each **Management Area.**

Target – means a measurable, auditable statement that contributes to achievement of the **Objective** in each **Management Area**.

Part A – Farm Environment Plans

A Farm Environment Plan can be based on either of:

1. The material set out in Part B below;

OR

2. Industry prepared Farm Environment Plan templates and guidance material that:
   (a) includes the following minimum components:
      (i) the matters set out in 1, 2, 3, 4B and 5 of Part B below;
      (ii) contains a methodology that will enable development of a plan that will identify actual and potential environmental effects and risks specific to the property, addresses those effects and risks and has a high likelihood of appropriately avoiding, remedying or mitigating those effects;
      (iii) performance measures that are capable of being audited as set out in Part C below; and
      (iv) matters or requirements set out in Part B of Schedule 7 that have been added as a result of a sub-region planning process; and
   (b) has been approved as meeting the criteria in (a) and being acceptable to the Canterbury Regional Council by the Chief Executive of the Canterbury Regional Council.

Part B – Farm Environment Plan Default Content

The plan requirements will apply to:

(a) a plan prepared for an individual property or farm enterprise; or

(b) a plan prepared for an individual property which is part of a collective of properties, including an irrigation scheme, principal water supplier, or an Industry Certification Scheme

The plan shall contain as a minimum:

1. Property or farm enterprise details
   (a) Physical address
   (b) Description of the ownership and name of a contact person
   (c) Legal description of the land and farm identifier

2. A map(s) or aerial photograph at a scale that clearly shows:
   (a) The boundaries of the property or land areas comprising the farming enterprise.
   (b) The boundaries of the main land management units on the property or within the farming enterprise.
   (c) The location of permanent or intermittent rivers, streams, lakes, drains, ponds, wetlands and springs.
   (d) The location of riparian vegetation and fences adjacent to water bodies.
   (e) The location on all waterways where stock access or crossing occurs.
   (f) The location of any areas within or adjoining the property that are identified in a District Plan as “significant indigenous biodiversity”.
   (g) The location of any critical source areas for phosphorus or sediment loss for any part of the property including any land within the High Runoff Risk Phosphorus Zone.
   (h) The location of flood protection or erosion control assets, including flood protection vegetation.
   (i) Public access routes or access routes used to maintain the rivers, streams, or drains.

3. A list of all Canterbury Regional Council resource consents held for the property or farming enterprise.

4A. An assessment of the adverse environmental effects and risks associated with the farming activities and how the identified effects and risks will be managed, including irrigation, application of nutrients, effluent application, stock exclusion from waterways, offal pits and farm rubbish pits.

4B (a) nutrient budgets which show the nitrogen baseline and nitrogen loss calculation for the property or farming enterprise; and
   (b) a report from the Farm Portal which shows for any property or farming enterprise the Baseline GMP Loss Rate and Good Management Practice Loss Rate or in those circumstances provided for in this Plan, the Equivalent Baseline GMP Loss Rate and Equivalent Good Management Practice Loss Rate.

5. A description of how each of the following objectives and targets for each Management Area, where relevant, will be met and the specific actions that will be implemented to attain the targets.

5A **Management Area: Nutrients**

Objectives:

(1) Use nutrients efficiently and minimise nutrient losses to water.

(2) Nutrient losses do not exceed consented nitrogen loss limits.

Targets:

(1) Nitrogen losses from farming activities are at or below the:
   (a) Baseline GMP Loss Rate or Good Management Practice Loss Rate (whichever is the lesser); or
   (b) consented nitrogen loss limits.
(2) Available nitrogen loss mitigation measures (excluding those associated with irrigation, fertiliser or effluent management) are implemented.
(3) Phosphorus and sediment losses from farming activities are minimised.
(4) Manage the amount, timing and application of fertiliser inputs to match the predicted plant requirements and minimise nutrient losses
(5) Store and load fertiliser to minimise the risk of spillage, leaching and loss into water bodies.

5B: Management Area: Irrigation

Objective:

The amount and timing of irrigation is managed to meet plant demands, minimise risk of leaching and runoff and ensure efficient water use.

Targets:

(1) New irrigation systems are designed and installed in accordance with industry codes of practice and standards.
(2) The performance of irrigation systems is assessed annually and irrigation systems are maintained and operated to apply irrigation water at their optimal efficiency.
(3) The timing and depth of irrigation water applied takes account of crop requirements and is justified through soil moisture monitoring or soil water budgets and climatic information.
(4) Staff are trained in the operation, maintenance and use of irrigation systems.

5C **Management Area: Cultivation and Soil Structure**

Objective:

The physical and biological condition of soils is maintained or improved in order to minimise the movement of sediment, phosphorus and other contaminants to waterways.

Targets:

(1) Farming activities are managed so as to not exacerbate erosion.
(2) Farming practices are implemented that optimise infiltration of water into the soil profile and minimise run-off of water, sediment loss and erosion.

5D **Management Area: Animal Effluent and Solid Animal Waste**

Objective:

Animal effluent and solid animal waste is managed to minimise nutrient leaching and run-off.

Targets:

(1) Effluent systems meet industry Codes of Practice or an equivalent standard.

(2) The timing and rate of application of effluent and solid animal waste to land is managed so as to minimise the risk of contamination of groundwater or surface water bodies.
(3) Sufficient and suitable storage is available to enable animal effluent and wash-down water to be stored when soil conditions are unsuitable for application.
(4) Staff are trained in the operation, maintenance and use of effluent storage and application systems.

5E **Management Area: Waterbodies (wetlands, riparian areas, drains, rivers, lakes)**

Objective:
Wetlands, riparian areas and the margins of surface waterbodies are managed to avoid damage to the bed and margins of the water body, and to avoid the direct input of nutrients, sediment, and microbial pathogens.

Targets:
(1) Stock are excluded from waterbodies in accordance with regional council rules or any granted resource consent.
(2) Vegetated riparian margins of sufficient width are maintained to minimise nutrient, sediment and microbial pathogen losses to waterbodies.
(3) Farm tracks, gateways, water troughs, self-feeding areas, stock camps, wallows and other farming activities that are potential sources of sediment, nutrients and microbes are located so as to minimise the risks to surface water quality.
(4) Mahinga kai values are protected as a result of measures taken to protect and enhance water quality and stream health.

5F **Management Area: Point Sources (offal pits, farm rubbish pits, silage pits)**

Objective:
The number and location of pits are managed to minimise risks to health and water quality.

Target:
(1) All on-farm silage, offal pit and rubbish dumps are managed to avoid direct discharges of contaminants to groundwater or surface water.

5G **Management Area: Water-use (excluding irrigation water)**

Objective:
To use water efficiently ensuring that actual use of water is monitored and efficient.

Targets:
(1) Actual water use is efficient for the end use.

The plan shall include for each objective and target in section 5 above:
(a) detail commensurate with the scale of the environmental effects and risks;
(b) a description of the actions and Good Management Practices (and a timeframe within which those actions will be completed) that will be implemented to achieve the objectives and targets.
(c) records required to be kept for measuring performance and attainment of the targets and objectives.

6. Nutrient budgets, prepared by a suitably qualified person using the Overseer nutrient budget model, or equivalent model approved by the Chief Executive of Environment

Canterbury, for each of the identified land management units and the overall farm or farming enterprise.

Sub-region Additions

10. **Waimakariri - Additional Requirements**

Within the Waimakariri Sub-region, the following additional requirements for farm environment plans apply:

Note: Management Area 5A: Nutrients, Objective 2, Target 1 does not apply to properties that comply with the irrigation and winter grazing thresholds in Rule 8.5.25.

1. The information required under Part B 2(c) includes the location of any artificial watercourses.

1. **Management Area 5A: Nutrients** includes the following additional objective and targets:

Objectives:
1. Staged reductions in nitrogen loss for land within the Nitrate Priority Area to meet nitrate-nitrogen limits for surface water, groundwater and drinking water sources in Section 8.

Targets:
1. Where required further reductions in the nitrogen loss rate for properties within the Nitrate Priority Area as required by Table 8-9.

2. Within the Ashley Estuary (Te Aka Aka) and Coastal Protection Zone, any property greater than 5 ha in area that includes or directly adjoins a river or coastal lake, and with winter grazing or irrigation on the property, is to prepare, implement, and have audited a Farm Environment Plan in accordance with this Schedule. However, **Management Area 5A: Nutrients, Objective 2, Target 1** does not apply to properties that comply with the irrigation and winter grazing thresholds in Rule 8.5.25.

Part C – Farm Environment Plan Audit Requirements

The Farm Environment Plan must be audited by a Certified Farm Environment Plan Auditor who is independent of the farm being audited (i.e. is not a professional adviser for the property) and has not been involved in the preparation of the Farm Environment Plan.

The farming activity occurring on the property will be audited against the following minimum criteria:
1. An assessment of the performance of the farming activity against the objectives, targets, and timeframes specified in the Farm Environment Plan;
2. An assessment of the robustness of the nutrient budget/s;
3. An assessment of the efficiency of water use (if irrigated).

The auditor shall determine the level of confidence they have that each objective has been achieved. This level of confidence shall be categorised into the following:

1. High = The objective has probably been achieved;

2. Medium = The objective has possibly been achieved; or
3. Low = It is unlikely that the objective has been achieved.

The audit shall record the justification for each level of confidence assessment, including noting the evidence, or lack of, used to make the determination. Where an objective has received a Medium or Low level of confidence, the audit shall include the required actions for the farm to meet the objective. Where an objective has received a Medium level of confidence (and the farm has received no Lows), the audit shall also determine whether or not the farm is on-track to achieve the objectives.

The audit shall record the overall audit grade based on the results of the level of confidence assessment as follows:

1. A grade = All Highs;
2. B grade = One or more Mediums and no Lows, but on-track to achieve the objectives;
3. C grade = One or more Mediums and no Lows, but not on-track to achieve the objectives; or
4. D grade = Any Lows.

The grade of the previous audit sets the timeframe until the next audit is required as follows:

1. A grade = 4 years;
2. B grade = 2 years;
3. C grade = 12 months; or
4. D grade = 6 months.

Exceptions to the timeframes for repeat audits apply in the following circumstances:

1. Where an audit grade of A or B has been achieved, but where the manager of the farm changes or the farm system changes, then an audit shall be under taken within 12 months of the change.

   A change in the farm system means whole farm operation conversions, including but not limited to, converting between dairy support, dairy platform, sheep & beef and cropping; and also any introduction of a new stock type to the farm, e.g. deer or wintering dairy cows. Changes such as, varying the type of crop grown or varying the relative proportions of stock types do not constitute a farm system change.

2. Where a farm is subject to Farm Environment Plan audit requirements under a nutrient discharge consent held by an irrigation scheme, the audit frequency specified in the irrigation scheme's consent shall prevail over the timeframes set out above.

3. Where a farm is subject to a Farm Environment Plan audit as part of an ISO Accredited audit programme, then the audit frequency for an A or B grade shall be consistent with that of the ISO accredited audit programme for a 'passed' audit under the programme.

The Environment Canterbury Certified Farm Environment Plan Auditor Manual sets out the standards and methods to be used by a Certified Farm Environment Plan Auditor to demonstrate proficiency and competency in the auditing of Farm Environment Plans.

Schedule CRC252218E

Part A – Management Plans

A Management Plan can be either:

1. A Plan prepared in accordance with the requirements of Part B below; or

2. A Plan prepared in accordance with an industry prepared Farm Environment Plan template that has been certified by the Chief Executive of Environment Canterbury as providing at least an equivalent amount of information and practice guidance contained in Part B below.

Part B – Management Plan Default Content

The Management Plan shall contain as a minimum:

1. Property details

    (a) Physical address

    (b) Description of the ownership and name of a contact person

    (c) Legal description of the land and farm identifier.

2. A map(s) or aerial photograph at a scale that clearly shows:

    (a) The boundaries of the property.

    (b) The boundaries of the main land management units on the property.

    (c) The location of permanent or intermittent rivers, streams, lakes, drains, ponds, wetlands or springs.

    (d) The location of riparian vegetation and fences adjacent to water bodies.

    (e) The location on all waterways where stock access or crossing occurs.

    (f) The location of any areas within or adjoining the property that are identified in a District Plan as “significant indigenous biodiversity”.

    (g) The location of any critical source areas for phosphorus loss including any part of the property within the High Runoff Risk Phosphorus Zone.

3. A description of:

    (a) the on-farm actions that have been undertaken in the previous 01 July to 30 June period to implement the applicable practices described in the table below; and

    (b) the on-farm actions that will be undertaken over the next 01 July to 30 June period to implement the applicable practices described below.

4. A copy of the Farm Environment Plan or Management Plan shall be retained by the landowner and updated at least once every 12 months as necessary, and provided to the Canterbury Regional Council on request.

Practice	On-farm actions undertaken in the previous 12 months	On-farm actions to be undertaken in the next 12 months
Water, effluent and fertiliser is applied at a rate that does not exceed the water holding capacity of the soil or the agronomic requirements of the crop.		
Irrigation systems, effluent application systems, fertigation systems and fertiliser or organic manure systems are assessed annually, and maintained and operated to apply irrigation water, waste or nutrients efficiently.		
Silage pits, refuse pits and offal pits are sited, designed and managed to avoid the discharge of leachate into surface waterbodies		
Effluent systems meet industry Codes of Practice or an equivalent standard.		
Fertiliser is stored a minimum of 20 metres from surface waterbodies		
Non irrigation water use is monitored and efficient.		
Stock are excluded from waterbodies in accordance with regional council rules or any granted resource consent.		
Vegetated buffer strips of at least 5 metres in width are maintained between areas of winter grazing and any river, lake, drain, wetland or spring that discharges to a surface waterbody.		
Vegetated riparian margins of sufficient width are maintained to minimise nutrient, sediment and microbial pathogen losses to waterbodies.		

Waimakariri Irrigation Limited

Community Drinking Water Protection Zone Risk Assessment

Table of Contents

1 Introduction

Community Drinking Water Protection Zones are mapped areas around community drinking water supplies that are used to help identify and manage the risks of activities on the quality of the water supply. The methodology for delineating provisional zones is set out in Schedule 1 of the operative Canterbury Land and Water Regional Plan.

2 Purpose

The purpose of this document is to support the completion of Community Drinking Water Protection Zone (CDWPZ) Risk Assessments detailed in schedule CRC252218X and ensure compliance with the relevant nutrient discharge consent condition which states:

For any Property falling partly or wholly within a CDWPZ, the Consent holder shall ensure:

a. Discharges from the Property are assessed and managed in discussion with the impacted shareholder(s) and the Community Drinking Water Supplier in accordance with Schedule CRCXXXXXXD, and in a manner that is consistent with the Resource Management (National Environmental Standard for Sources of Human Drinking Water) Regulations 2007, with the assessment completed:

i. within three months of the Commencement Date for all properties managed by the Scheme and falling partly or wholly within a CDWPZ at that date;

ii. at least once every three years for Properties with existing CDWPZ risk assessments;

iii. within three months of a Property within a CDWPZ being added to Schedule CRCXXXXXXD (including a new CDWPZ being added to Schedule 1 of the Canterbury Land and Water Regional Plan) that have not been previously assessed in accordance with Schedule CRCXXXXXXD);

iv. within three months of the Consent Holder becoming aware of information that may materially impact on any assessment previously undertaken; and

v. within three months of any change to the area of an existing CDWPZ taking formal effect for the purposes of Schedule 1 of the Canterbury Land and Water Regional Plan.

b. Where a Community Drinking Water Protection Zone Risk Assessment identifies the Property as:

*i. **'Low Risk'**; there shall be no further management actions required in relation to the farming activities able to occur on the CDWPZ Impacted Land (subject to compliance with this resource consent and permitted activity rules related to the CDWPZ);*

*ii. **'Medium Risk'**; the farming activities able to occur on the CDWPZ Impacted Land shall be managed to (in addition to compliance with this resource consent and permitted activity rules related to the CDWPZ):*

A *avoid the discharge of solid or liquid effluent (including animal-based manures) within 20 metres of the CDWPZ;*

B *ensure all irrigation on the CDWPZ Impacted Land in the CDWPZ is undertaken using good management practice to minimise drainage to groundwater; and*

C *implement any other site specific recommendations that are consistent with managing Medium Risk activities and that are identified in the CDWPZ Risk Assessment.*

iii. *'**High Risk**'; the farming activities able to occur on the CDWPZ Impacted Land shall be managed to (in addition to compliance with this resource consent and permitted activity rules related to the CDWPZ):*

A *avoid the discharge of solid or liquid effluent (including animal based manures) within 20 metres of the CDWPZ;*

B *avoid any winter grazing (as defined in the Canterbury Land and Water Regional Plan at the Commencement Date) within the CDWPZ Impacted Land;*

C *ensure all irrigation on the CDWPZ Impacted Land in the CDWPZ is undertaken using good management practice to minimise drainage to groundwater;*

D *ensure there is no increase in stocking rate or fertiliser application on the CDWPZ Impacted Land in the CDWPZ; and*

E *implement any other specific recommendations that are consistent with managing 'Medium' and/or 'High Risk' activities and that are identified in the CDWPZ Risk Assessment,*

c. *All new CDWPZ Risk Assessments prepared after the Commencement Date are to be reviewed by a suitably qualified and experienced individual prior to implementation of the required actions set out in the risk assessment for the Property.*

d. *Where a CDWPZ Risk Assessment review increases the risk status of a Property compared to previous assessments, the assessments are to be provided to the Regional Leader - Monitoring and Compliance, Canterbury Regional Council prior to the implementation of the required actions set out in the risk assessment for the Property.*

e. *as a part of the Farm Environment Plan, Small Block Management Plan or Certified Freshwater Farm Plan (as might apply) for any Property located within a CDWPZ, there shall be additional requirements:*

i. *to include an objective that seeks to ensure land located within the CDWPZ is managed to prevent deterioration of drinking water from activities occurring on that land; and*

ii. *for the Property Owner to maintain records to demonstrate all agreed minimum actions are being implemented,*

f. *without limiting Condition 19(b), the Consent Holder shall, as soon as practicable, and in all cases within two working days, notify relevant Community Drinking Water Supplier, and the Regional Leader - Monitoring and Compliance, Canterbury Regional Council, if it becomes aware of an "Event" that may have an adverse effect on the quality of the water in the community supply bore, with an "Event" for the purposes of this consent meaning, but not*

limited to, an incident within the well protection zones of the relevant community supply bore that may contaminate the water supply from the community supply bore - such as accidental release of pollutants or excessive stock access, combined with the saturation of soil beyond the water retaining capacity (e.g. over-irrigation).

***Advisory note:** the level of mitigation required should apply based on whichever contaminant has the highest risk rating.*

2.1 Review

This procedure may be reviewed for the following reasons:

- Change in the extent of CDWPZ

- NES-DW requirements

2.2 Sensitive Receptors Requirements

A Community Drinking Water Supply and Protection Zone are defined as a "Sensitive Receptor" in resource consent CRC252218. As a sensitive receptor, WIL are required to ensure effects are "avoided, remedied or mitigated" and are unable to approve significant changes in farms systems if the change has a negative impact on the supply.

WIL manage these effects through other EMS supporting documents including the Audited Self-Management Programme, FEP preparation, Overseer Nutrient Budget Policy, Land Use Change process and is therefore not covered in this document.

2.3 Frequency of Assessment

Any new property located within a CDWPZ joining the WIL ASM programme will complete an assessment within 3 months of joining the programme. All existing WIL properties belonging to the ASM programme will have an CDWPZ assessment completed within 3 months of the granting of CRC252218.

All CDWPZ assessments are reviewed and updated every FEP audit cycle to reflect the varying risk of each property.

All updates will review water supply and farm activities, including consultation with the water supply manager.

Assessments may be reviewed earlier if the following occurs and materially impacts on previous risk assessments:

- Property is sold and/or changes management
- A change in land use or farm system application is approved
- An event has occurred which may change the risk profile of the site
- A change to the area of a Community Drinking Water Protection Zone as defined by Schedule 1 of the Canterbury Land and Water Regional Plan

In these circumstances, an updated CDWPZ will be completed within **3 months**.

2.4 CDWPZ Assessors

All CDWPZ Risk Assessments are to be completed and/or reviewed by an individual with sufficient qualifications and experience to effectively assess contaminant mobility and understand impacts on drinking water supplies.

3 Community Drinking Water Protection Zone Risk Assessments

Community Drinking Water Protection Zone Risk assessments are to be completed in accordance with Schedule CRC252218X . The excel spreadsheet titled CDWPZ Assessment Template is the basis of the schedule and to be used to complete the risk assessments. The following steps detail how the risk assessment spreadsheet is to be completed.

3.1 Philosophy

A risk management philosophy is applied as the basis of this methodology. Risk management is defined as:

> *The culture, process, and structures that are directed towards effective management of potential opportunities and adverse effects*

Hence this approach seeks to assess potentially significant adverse and beneficial effects on community drinking water supplies, including

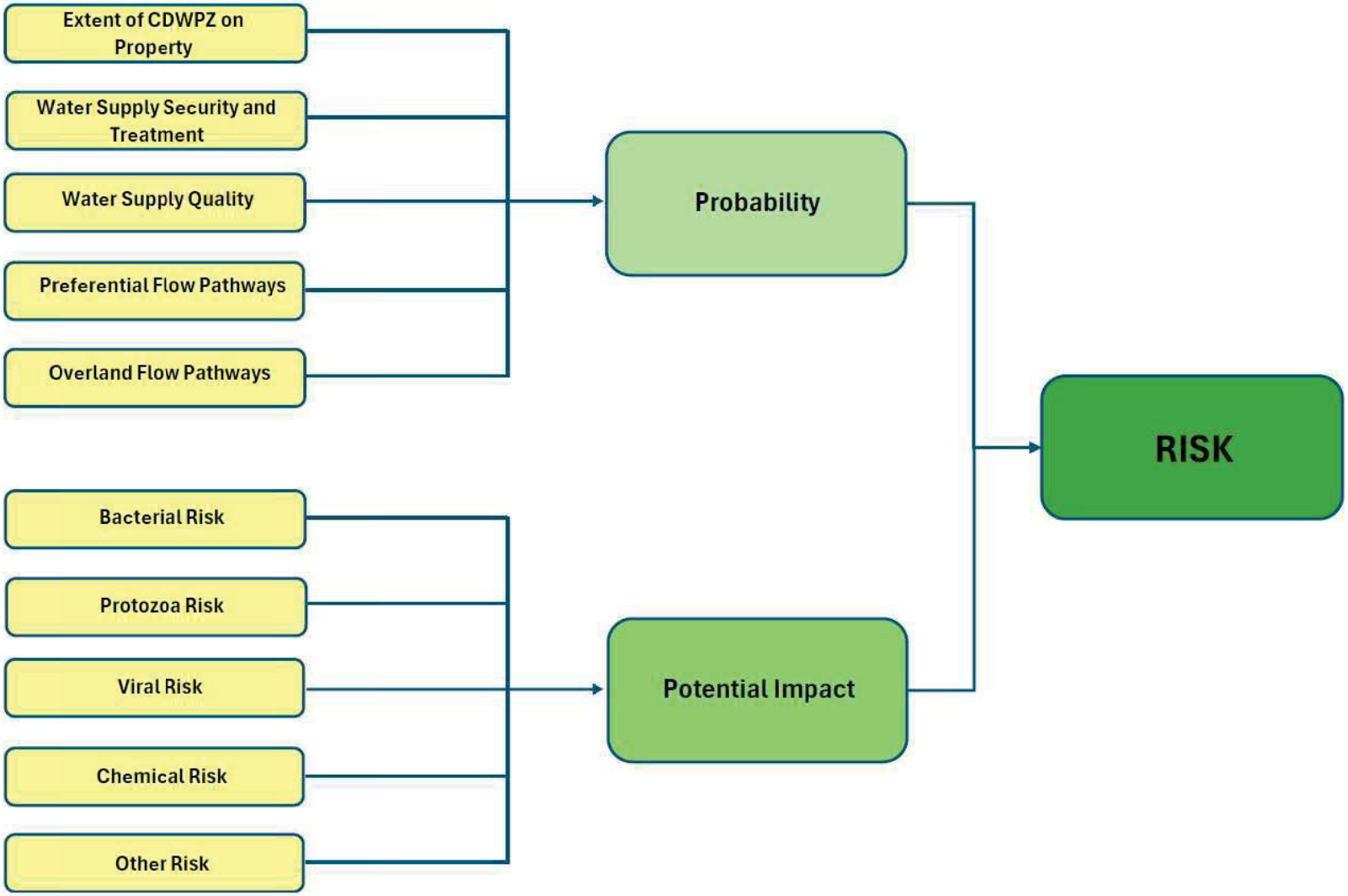
i. the magnitude of the impact of adverse effects;

ii. the likelihood of occurrence; and

iii. options for managing risks

By comparing impact and probability of a hazard (refer to 5 for definitions), a semi quantitative measure can be determined for the risk. From this position, mitigation strategies can be developed to reduce the risk and corresponding consequence and likelihood of an event.

3.2 Risk Assessment Process Summary



[1] Guidelines for Drinking Water Quality Management for New Zealand (2019)

3.3 Property Information

3.3.1 Spatial Data Compilation

The CDWPZ Risk Assessment is conducted in a standardised WIL ARCGIS project.

The CDWPZ spatial data set is to be compared to

i. the shareholder title data set;

ii. the Farm Environment Plan (FEP)

iii. Farm System; and,

iv. The Canterbury Bores data set

Any FEP boundary which overlaps with a CDWPZ polygon is subject to complete a CDWPZ Risk assessment in accordance with resource consent conditions.

3.3.2 GIS Analyses

As part of the CDWPZ Risk Assessment, spatial data will need to be presented.

ALL maps should:

- Be plotted at a suitable scale and rounded to the nearest 1:10,000
- Be plotted in NZTM with north facing upwards
- Possess a locality diagram
- Have a clear legend of the information on the map

GIS Tools are used to calculate the size of the CDWPZ and the number of hectares located within the property. GIS tools can also be used to calculate the distance from the property to the point of take of the water supply.

Figure 1: Example of a CDWPZ Risk Assessment Map

3.4 Water Supply Details

3.4.1 Water Supply Information

Borehole and well information such as screen and well depth can be located from the Environment Canterbury Well Card.

Water supply information such as MOH Code, population served etc. is obtained from the Public Register of Drinking Water Supplies.

3.4.2 Water Supplier Notification

The landowner is to notify the supplier of the drinking water:

- Property contact name and phone number
- Risks identified and actions taken to address risks

Details of the notification are to be recorded and included in the assessment form. Property owners are to advise the water supplier when there are changes in contact details.

3.4.3 Other Water Supply Information

Include any other relevant details relating to the water supplier, for instance contact details if private supply or version of water safety plans used to inform the assessment, or if it serves a particularly vulnerable population (e.g., pre-school or rest home).

3.5 Drinking Water Standards Compliance

3.5.1 Sanitary Bore Head

As per section 4.9.2 of the Drinking Water Quality Assurance Rules 2022 (Taumata Arowai, 2024), a bore head is considered a sanitary bore head if it meets all of the following criteria:

1. The bore head is installed above ground.
2. The bore is installed in an area of ground that is not below the surrounding ground level such that ponding could occur around the bore head during rainfall.
3. The annulus of the casing is sealed taking account of the formation that the bore has been installed in, to prevent the ingress of surface water via the outside of the casing and the bore is grouted below ground to an appropriate depth.
4. A concrete apron is installed around the bore head, extending a minimum of one metre in all directions from the casing and sloping away from the casing so that any water on the ground surface is carried away from the bore.
5. All apertures into the bore (for cables etc) are sealed and watertight to prevent access from water and vermin-proofed to prevent access by small animals etc.
6. All air vents and any other apertures that are not watertight must be screened to prevent access by small animals, face downwards, and be elevated at least 0.5 metres above the surrounding ground level.
7. Reasonable security measures are in place to protect the bore head from unauthorised access or interference.
8. If the bore head is in an area where farm animals are present, it must be fenced to exclude those animals from an area extending at least five metres in all directions from the bore head.

9. A mechanism prevents backflow at the bore head.
10. The bore head is inspected monthly for damage or defects and records kept of all inspections for at least five years.

Where a bore head has been assessed as meeting the criteria by Taumata Arowai, it is deemed "sanitary". Where the bore head has been assessed as not meeting the criteria, or has not yet been assessed, the bore head is deemed "not sanitary".

3.5.2 Water Supply Treatment

Where a water supply is treated, record and describe the treatment received. The Waimakariri District Council (WDC) record these details, with photos, in the water safety plans for the supply. Small, private supplies may not have these details immediately available. Where no information is available, the water supply is assumed to be untreated.

3.5.3 Water Supply Monitoring

Monitoring details required for water supplies are detailed in the Drinking Water Quality Assurance Rules 2022 (revised 2024). Where insufficient samples are taken or they detect contaminants such as *E. coli*, Protozoa, or Nitrate above the maximum acceptable values in the Water Services (Drinking Water Standards for New Zealand) Regulations 2022, then they are deemed non-compliant". Taumata Arowai reports the results of water supplies publicly in drinking water regulation reports.

3.5.4 Water Supply National Environmental Standard Status

The Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 (NES) specify the resource consenting requirements for discharges which may impact human drinking water. The NES has different consenting criteria if the water supply meets drinking water standards (s7) compared to if they do not meet existing drinking water standards (s8). For the scheme discharge consent applications, the NES status is identified for all water supplies currently located within the scheme ASM area.

3.6 Risk Assessment – Impact

3.6.1 Sources of Contamination

The property specific risk assessment seeks to understand the potential sources of contaminants on a property and how they may enter the drinking water supply. **Figure 2** identifies key potential contaminant sources and mobilisation pathways which should be considered for all property specific risk assessments.

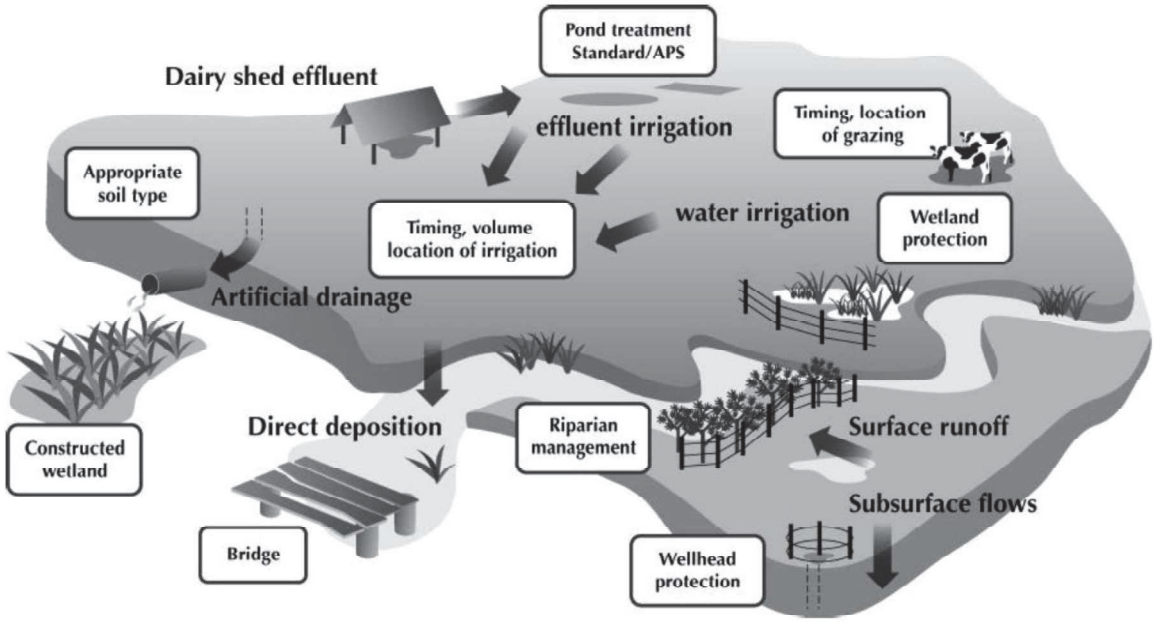


Figure 2: Examples of potential contaminant sources and mobilisation pathways[1]

Land use activities which occur on farm, which may occur within the CDWPZ are assessed for their potential contribution of the following contaminants:

1. Bacteria and Viruses
2. Protozoa
3. Chemical
4. Other contaminants of potential harm to human health

3.6.2 On-Farm Bacterial and Viral Sources of Contamination

Key bacterial and viral contaminants of concern include *E. coli*, *Salmonella*, *Campylobacter*, and norovirus. Drinking water contaminated with these pathogens can cause serious illness, permanent harm or even death, particularly for children, elderly or those who are immunocompromised. Higher contaminant loads are associated with a higher risk of infection.

Microbial and viral pathogens are commonly found in the guts of mammals and humans and faecal matter could become a source of contamination. Key sources on farm could include:

- Grazing of livestock, particularly intensive winter grazing
- Leaking effluent ponds
- Effluent discharges
- Offal holes
- Septic tanks and discharge fields
- Feed pads, animal holding areas
- Dairy sheds
- Heavily used stock races
- Soak holes draining any of the above areas
- Manure based soil conditioners

[1] Guidelines for Drinking Water Management for New Zealand (2019)

3.6.3 Protozoa Sources

Other microbial contaminants include protozoa, of which *Giardia* and *Cryptosporidium* are of particular concern. As for bacterial and viral contaminants, sources of protozoa are primarily from the gut of mammals and can cause significant harm when ingested.

Land use activities which may result in additional contaminant loads of protozoa include:

- Grazing of pre-weaned lambs and calves
- Possums (e.g., access to surface water in bush)

3.6.4 Chemical Sources

Chemical contamination on-farm can occur from several land use activities and biological processes. The potential impact on human health is variable, depending on the type of chemical and amount discharged.

Direct chemical discharges on farm could be acute (e.g., pesticide sprays) or historic (e.g., sheep dips, historic rubbish dumps or orchards).

Indirect chemical discharges may occur following a biological process, such as the production of nitrate after application of urea-based fertiliser.

Common on-farm activities which can contribute to chemical contamination of a water source include:

- Pesticide sprays and other agricultural sprays
- Leachate from rubbish holes
- Animal drench sites
- Fertiliser and chemical storage sites
- Diesel storage tanks
- Nitrate or cadmium from fertiliser applications
- Naturally occurring arsenic or other heavy metals
- Other source of high nitrate concentrations
- Other identified contaminated sites

3.6.5 Other Potential Sources

There are a number of other potential sources of contamination which may occur on a property which will need to be considered on a case-by-case basis.

3.6.6 Potential Impact Assessment

For each potential source of contaminant, the impact will need to be graded according to a semi quantitative scale of:

1. Minor
2. Moderate
3. Significant
4. Major
5. Catastrophic

Consideration should be given to the intensity and frequency of the activity (i.e., potential contaminant load). For instance, a dairy farm occasionally grazing the calves at a low intensity in the CDWPZ paddock will have a different impact compared to a calf rearer, where the unlined calf rearing sheds were in the same area.

Table 1: Risk matrix used as part of the CDWPZ Risk Assessment

Regime		OHSE	Environment	Financial	Reputational	Production
Consequences	Catastrophic	• 1 or more fatalities • Irreversible health problems for employees and community	• Offsite release un-contained. • Long term impacts on environment • Ground and surface water affected	• Severe financial loss – possible liquidation. • $>1 Million	• International loss of reputation with international media coverage. • Loss of social licence Criminal charges likely	• Cessation of farming operations. • Projected loss against budget >75%
	Major (4)	• Medium to long term health problems for employees and community. • Long term to permanent disabilities • Multiple MTI's	• Offsite release contained & restored in medium term (<1 month). • Medium to long term (< 6 month) impacts on environment. • Surface water affected with potential risk to groundwater	• Major financial disruptions to long term profitability expected • $<1 Million	• National loss of reputation with national media coverage. • Loss of social licence • Litigation likely	• Major production disruption (<6 months) • Projected loss against budget <75%
	Significant (3)	• Short - medium term health problems for employees and community • Lost time injuries (LTI).	• On site release contained & restored in short term (< 7 days). • Moderate term (< 1 month) impacts on environment • Slight short-lived surface water impact	• Moderate financial impact likely to effect annual profit line. • $<100,000	• Regional loss of reputation with local media coverage. • Potential loss of social licence • Fines expected	• Moderate term production disruption (1-month) • Projected loss against budget <50%
	Moderate (2)	• Very short-term health concerns • Recorded medical treated injuries (MTI)	• On site release immediately contained & restored. • Short term (< 1 week) impacts on environment • Potential impact on surface water only	• Minor (tolerable) financial loss or asset loss impact • < $10,000	• Loss of local reputation by word of mouth	• Short term production disruption (1 week) • Projected loss against budget <25%
	Minor (1)	• Inherently safe- Unlikely to cause health problems • First Aid Injuries	• Minor Localised Spill with insignificant effects on farm or environment • No impact on surface water only	• Low financial loss • < $1,000	• Unsubstantiated rumours • Slight impact on reputation	• Slight loss of production (< 2 days) • Projected loss against budget <10%

3.7 Risk Assessment – Probability

The potential likelihood of an event is a qualitative description of its probability or frequency.

The site probability assessment identifies the potential pathways available for a contaminant to enter the drinking water supply. The risk assessment allocates a score based on:

i. Preferential Flow Pathways Assessment
ii. Irrigation
iii. Other Preferential Flow Pathways
iv. Overland Flow Pathway Assessment

Details of these the potential pathways is presented below with a summary presented in Table 3.

3.7.1 Irrigation

A key risk factor on irrigated properties is related to additional water provided to the land through irrigation. Excessive water can mobilise contaminants through the soil profile and increase the risk of contaminants entering the drinking water supply.

Irrigation system risk takes into consideration the system potential for applying excessive water in relation to irrigation design specifications, climate, and soil type.

Irrigation systems that are highly reliant on labour to effectively implement Good Management Practice[2] to ensure excessive applications of water are minimised are higher risk compared to automated systems, such as VRI or low application rate systems.

3.7.2 Preferential Flow Pathways Assessment

Preferential flow pathways refer to the movement of water through the soil. Surface water can enter groundwater directly by channelizing between stones, or cracks which can develop during wet/dry cycling of some soil types.

3.7.3 Other Preferential Flow Pathways

Water supplies from wells screened to a depth greater than 80 m are low risk of contaminant mobilisation from preferential flow pathways, irrespective of other factors.

Where screen depth is less than 80 m, the following factors need to be considered:

- Screen depth
- Length and depth of well/gallery
- Soil(s) tendency for creating preferential flow pathways
- Sources of preferential flow pathways (e.g., tree roots)
- On farm management practices (e.g., cultivation)
- Rainfall intensity
- Other sources of water movement (e.g., leaky stock water races, ponds etc)

Stony soils and clays are more prone to developing preferential flow pathways than deeper silty or loam-based soils and should be given a higher risk, particularly if the water supply is shallow.

[2] As defined in the *Industry-Agreed Good Management Practices Relating to Water Quality* (2015)

Regular cultivation tends to reduce the risk of preferential flow pathways developing, whereas clays in low rainfall areas in permanent pasture may be prone to developing cracks in summer.

Higher rainfall areas can also increase the risk of preferential flow pathways developing due to higher soil moisture status, particularly in stony soils.

Stockwater races and other natural or artificial waterways may seep and be a continuous source of water to mobilise contaminants.

3.7.4 Overland Flow Pathway Assessment

Overland flow pathways relate to the water supply take site's potential to flood, potentially increasing the risk of a high contaminant loading in an event entering the supply.

Key matters to consider include:

- Topography and slope of land from property to water supply
- Physical features of the property which may impact on overland flow pathways
- Proximity of natural or artificial waterways to the water supply
- Flood risk potential of the natural or artificial waterway
- Soil type run-off potential

In many instances, even if a site could flood, the influence from the property on contaminant loads is minimal. For instance, if the property is located downhill of a water supply or a physical barrier exists. A physical barrier could be a bund, land contour, railway tracks, buildings, or any other physical impediment to overland flow pathways.

Waterways include drains, stock water races, rivers, lakes, streams, and springs. In most situations drains and natural waterways will be higher risk than stock water or irrigation races, as they are intended to drain water from the land and the influence of rainfall on water levels is high.

Environment Canterbury and Waimakariri District Council are required to identify flood prone land. Where a waterway is identified, the site should be compared against the flood risk potential identified by the relevant council records.

Heavy soil types have lower infiltration rates and can cause run-off during high-intensity rainfall events. The run-off potential of a soil is recorded in S-maps.

Table 2: Summary of site pathways

Risk Level	Irrigation Potential	Preferential Pathways	Overland Flow Pathway
High	• Higher application rate system on insufficiently heavy soils OR • Low application rate system on very light soils in high rainfall area OR • CDWPZ located at start or end of a travelling irrigator run	• One or more flow pathways are present OR • Potential frequency and/or volume of water is medium or higher OR • Well screen depth is less than 30 m	• Water supply located in flood prone area AND • Property land use can contribute to contaminant load
Medium	• Low application rate system, actively poor management required to apply water more than field capacity OR • Higher application depth system on sufficiently heavy soils to minimise risk of excessive application of water	• One or more flow pathways are present AND • Potential frequency and/or volume of water is low AND • Well screen depth is greater than 30 m	• One or more overland flow risk factors are feasible AND • Property land use can contribute to contaminant load
Low	• No irrigation OR • System incapable of applying water to exceed field capacity OR • Irrigated area within the CDWPZ is insignificant	• All potential preferential flow pathways are low risk	• Water supply is up-gradient from property; OR • Physical barrier prevents overland run-off from property entering water supply take point; OR • No overland flow risk factors are present

3.8 Probability Score

The probability score calculates the likelihood of an event occurring on the property, based on the inputs provided.

The probability score allocates up to 10 points for each risk factor and is calculated as shown in **Table 4**.

Table 3: Calculated probability score from CDWPZ Risk Assessment Spreadsheet

Probability Factor	Low Risk Criteria	Medium Risk Criteria	High Risk Criteria
Irrigation **Other Preferential Flow** **Overland Flow**	See above	See above	See above
Population Size Served	Less than 100	Between 100-500	More than 500
Sanitary Bore Head	Sanitary		Not sanitary
Water Supply Treatment	Treated		Untreated
Water Quality History	Compliant		Non-compliant Unknown
Score Allocated (per factor)	0	5	10
Proportion of Land in CDWPZ	Score out of 10 proportional to the % of CDWPZ located on the property		

The score out of 10 for each probability factor is summed and a risk likelihood is allocated as follows:

Table 4: Risk Likelihood Allocation Based on Calculated Probability

Probability Descriptor	Score	Description
LIKELY	Greater than 54	• High probability the event will occur • Similar event has occurred recently on the property
POSSIBLE	Between 27-54	• Risk factors present which indicate an event could occur • High chance of cumulative effects • Similar event has occurred in the past on or near the property
UNLIKELY	Less than 27	• Plausible the event could occur at some time • Event has not occurred on or near the property in the past • Some chance of cumulative effect

The CDWPZ Risk Assessment form automatically calculates the probability score, based on the inputs provided.

3.9 Overall Risk Assessment

Once the contaminant Impact and Probability assessments are completed, the Overall Risk grading is calculated by scoring the Impact and Probability and multiplying them as detailed in Table 6.

Table 5: Overall Risk Grading Based on Assessed Impact and Probability

	Probability	Unlikely	Possible	Likely
Impact	SCORE	1	2	3
Minor	1	1	2	3
Moderate	2	2	4	6
Significant	3	3	6	9
Major	4	4	8	12
Catastrophic	5	5	10	15

Green = Low Risk, Orange = Moderate Risk, Red = High Risk

The risk is calculated for each potential contaminant, with the highest risk rating setting the risk level for the property.

3.9.1 Mitigation Strategies

Depending on the highest risk rating the property received, condition 21(b) prescribes the minimum actions to be implemented through the Farm Environment Plan, which are assessed during their audits (Table 7).

Table 6: Mitigation Strategies Matrix

Assessed Risk Rating	Minimum Actions
LOW *Low risk of land use activities contaminating drinking water*	Complies with regional council resource consent conditions and permitted activity rules[3]
Medium *Potential risk for land use activities to contaminate drinking water*	Low risk actions and, where applicable, the following: • No discharge of solid or liquid animal effluent (including animal-based manures) within 20 m of the CDWPZ • Irrigation is managed to Good Management Practice within the CDWPZ Impacted Land to minimise drainage to groundwater. • Actions necessary to mitigate other medium risk activities specific to the property, not otherwise managed by the above.
High *Likely risk of land use activities to contaminate drinking water*	Low and Medium risk actions and, where applicable, the following: • Avoid any winter grazing (as defined in the Canterbury Land and Water Regional Plan at the Commencement date) within the CDWPZ Impacted Land. • Ensure no increase in stocking rate or fertiliser application on the CDWPZ Impacted Land • Actions necessary to mitigate other High risk activities specific to the property, not otherwise managed by the above.

[3] Refer to Section 5 Region-wide Rules: https://www.ecan.govt.nz/your-region/plans-strategies-and-bylaws/canterbury-land-and-water-regional-plan/canterbury-land-and-water-regional-plan/

A summary of the rules applicable to activities located within a CDWPZ are available from the Environmental Team. Where an activity within a CDWPZ is identified as needing a resource consent, a minimum action will require the landowner to obtain resource consent for the activity.

Often risks arise from very site-specific activities or management practices. Where these practices or activities result in a medium or high risk of contamination to the water supply, specific actions should be developed to mitigate the potential effects from these activities.

The Guidelines for Drinking Water Quality Management for New Zealand (2019) list several other potential mitigations which may be useful to consider, where applicable, such as:

- Allowing only approved animals
- Specifying stocking rates and grass/fodder length
- Standards for fencing
- Installing riparian strips – specifying size, planting
- Adopting approved fertiliser application rates
- Using approved fertiliser applicators
- Using approved pesticides and applications rates
- Using approved pesticides applicators
- Requiring bunded chemical and fertiliser storage areas
- Instituting waste controls and treatment, including dairy shed, offal pits, sheep dips etc
- Introducing holding paddock/yard/pen waste controls (pens include buildings for pigs, chickens, sale yards etc).
- Retire land from farming activities

All mitigations need to be discussed and agreed upon by the landowner before inclusion as an action.

3.10 Finalising

Once a CDWPZ risk assessment is completed, the assessment is peer reviewed by a suitably qualified individual and finalised once feedback is incorporated.

A copy of the full report generated in PDF format is provided to the landowner and manager(s), including notification of requirements to contact the water supplier and WIL if an event occurs in the CDWPZ.

The full assessment and final PDF report are added to the scheme shareholder folder. Actions arising from the assessment are to be incorporated into the FEP and made available to the auditor to be assessed during the FEP Audit.

4 Relevant Documents

Document
Resource Consent CRC252218
WIL Environmental Management Strategy
EMSFEP 001 – FEP Process
EMSFEP – 002 FEP Audit Process
EMSNM – 002 Land Use and Farm System Change Process
Community Drinking Water Protection Zone Risk Assessment Template
Industry-Agreed Good Management Practices Relating to Water Quality (September 2018)
Guidelines for Drinking Water Quality Management for New Zealand (2019)
Environment Canterbury Well Card
Drinking Water for New Zealand Register
Drinking Water Quality Assurance Rules 2022 (Revised 2024)

4.1 Additional References

Ministry for the Environment, 2023. Delineating source water risk management areas. PDP Ltd on behalf of Ministry for the Environment.

Ministry for the Environment, 2021. Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007. Wellington.

Taumata Arowai. 2024. Drinking water quality assurance rules 2022.

Taumata Arowai. 2022. Water Services (Drinking Water Standards for New Zealand) Regulations 2022.

5 Amendment Register

Version	Date Reviewed	Purpose / Amendments	Section Reviewed	Reviewer	Status
1.0	13 September 2022	Development of EMS	All	Justin Legg Eva Harris	FINAL DRAFT
1.0	29 November 2022	Certification	All	Environment Canterbury	CERTIFIED
2.0	12 March 2025	Adopted to reflect WIL	All	Ben Howden (WIL)	DRAFT
2.1	3 June 2025	Review	All	Jeremy Sanson (PDP)	DRAFT

6 Definitions

Term	Definition
Community Drinking Water Protection Zone (CDWPZ)	Means a Community Drinking Water Protection Zone as identified in Schedule 1 of the Canterbury Land and Water Regional Plan.
Community Drinking Water Protection Zone (CDWPZ) Impacted Land	Land that is included in a CDWPZ, plus any other land within the same paddock where it not possible to treat such further land on a different management basis for the purposes of condition 20. *Advisory note: For example:* *• it will typically not be possible to provide differential stock grazing within the same paddock; and* *• it may be possible to provide differential management for a cropping or horticultural operation in the same paddock.*
Impact	The outcome of an event or situation expressed qualitatively or quantitatively in terms of loss, injury disadvantage – or if resolved, gain, improvement
Farm Environment Plan (FEP)	A planning document that outlines on-farm environmental risks and sets out a programme to manage those risks. It incorporates local climate and soils, the type of farming operation, and the goals and aspirations of the land user.
Hazard	A potential source of harm, or a situation, that could detrimentally impact on to a community drinking water supply from a social, environmental, economic, or cultural perspective.
Likelihood	A qualitative description of probability or frequency.
Risk Assessment	A systematic process of evaluating the potential risks that may be involved in a projected activity or undertaking.
Risk	The chance of an event that will lead to undesirable outcomes and/ or impacts on community drinking water supplies.
Shareholder Water Agreement	A contractual agreement between a shareholder and the water provider that specifies how much irrigation water (m^3) is to be provided to a specified area (ha).