**Regional Policy Statement**

**LF-FW-P11: Management and regulation of intensive farming *land** use activities affecting groundwater and surface *water** quality**

In order to give effect to RPS-LF-LW-P6, RPS-LF-LW-P7, RPS-LF-LW-P8, RPS-LF-LW-P9 and RPS-LF-LW-P10, the *effects** of intensive farming *land** use activities on groundwater and surface *water** quality must be managed in the following manner:

1. **Nutrients**

    a. Nitrogen leaching maximums must be established in the regional plan which:

        i. take into account all the sources of nitrogen in the catchment

        ii. will contribute to implementation of the strategy for surface *water** quality set out in RPS-LF-FW-P5, RPS-LF-LW-P6, RPS-LF-LW-P7 and RPS-LF-LW-P8 and the strategy for groundwater quality set out in RPS-LF-LW-P9.

        iii. recognise the productive capability of *land** in the *Water Management Sub-area**

        iv. are achievable on most farms using *good management practices** and *best management practices**

        v. provide for appropriate timeframes for achievement.

    b. Existing intensive farming *land** use activities must be regulated in targeted *Water Management Sub-areas** to achieve the nitrogen leaching maximums specified in (a) except as provided for in (c) and (d) below.

    c. Existing intensive farming *land** use activities which do not comply with (b) but which demonstrate a transition to an alternative non-intensive farming *land** use must be regulated to ensure that they are able to continue for a period not exceeding five years in order to enable that transition and only where there is no increase in the nitrogen leaching loss from the existing intensive farming *land**use activity during that period; and

    d. Only allow existing intensive farming *land** use activities which do not comply with (b) or (c) where nitrogen leaching loss from the *land** is reduced to the maximum extent reasonably practicable in the shortest feasible timeframe.

    e. New intensive farming *land** use activities must be regulated throughout the Region to achieve the nitrogen leaching maximums specified in (a).

2. **Faecal contamination**

    a. Those persons carrying out existing intensive farming *land** use activities in the targeted *Water Management Sub-areas** listed in Table 11 or new conversions to intensive farming *land** use activities anywhere in the Region must be required, amongst other things, to:

        i. prevent cattle access to some surface *water bodies** and their *bed*s**

ii. mitigate faecal contamination of surface *water** from other entry points (e.g., run-off from races, *feed pads** and paddocks)

iii. establish programmes for implementing any required changes.

3. **Sediment**

a. In those *Water Management Sub-areas** where agricultural *land** use activities are the predominant cause of elevated sediment levels in surface *water**, the Regional Council will promote the preparation of voluntary management plans under the Council's Sustainable Land Use Initiative or Whanganui Catchment Strategy for the purpose of reducing the risk of *accelerated erosion**, as described in RPS-LF-LAND.

4. ***Good management practices****

a. All intensive farming *land** use activities must be regulated to, as a minimum, implement *good management practices** to minimise nutrient leaching and run-off, faecal contamination, and sediment losses.

**LF-FW-M19 Innovative *Land** Use Research**

**Description**

Support initiatives by local communities, sector groups or tangata whenua which develop options for sustainable *land** use in the Region. Support for work in *Water Management Sub-areas** where nitrogen leaching is an issue, as identified in Table 11, will be a priority in order to find viable options (including nitrogen loss mitigation options) for intensive farming *land** users that will have difficulty in reducing nitrogen loss to the extent necessary to achieve the nitrogen leaching maximums specified in the One Plan rules.

The Regional Council will provide assistance through providing data and information that will assist in the identification and evaluation of innovative nitrogen loss mitigations or *land** use options and participating in any evaluative work as appropriate.

**Who**

Local communities, including tangata whenua, rural and other sector groups, *Territorial Authorities**, and Regional Council (in consultation with tangata whenua).

**Links to Policy**

This method implements RPS-LF-FW-P10 and RPS-LF-FW-P11.

**Target**

Advice and assistance is available for landowners and tangata whenua in the Region regarding *land** use management practices.

**LF-LW-M20 Provision of Information**

**Description**

The Regional Council will collate and publish information regarding the identification and evaluation of nutrient management models and nitrogen loss assessment methods that may

be appropriate for calculation of on-farm nutrient losses. The Regional Council will register and maintain *OVERSEER® reference files** for the synthetic farm systems simulated in Table 12 and reference files for the 75th percentile leaching rates in Table 56. The Regional Council will make publicly available the estimated nitrogen leaching loss values for these synthetic farm systems, including equivalent values amended by OVERSEER® version updates. The Regional Council will have regard to the impact of OVERSEER® version updates (as demonstrated by changes in the estimated nitrogen leaching loss values of the synthetic farms over time) when considering applications for intensive farming *land** use activities and in compliance monitoring.

**Who**

Regional Council.

**Links to Policy**

This method implements RPS-LF-LW-P11.

**Target**

- The Regional Council will maintain representative OVERSEER® farm system reference files and make their base files and nitrogen leaching loss estimates available on its website (including updated nitrogen leaching loss estimates resulting from OVERSEER® version changes).
- The *OVERSEER® reference files* and 75th percentile reference files** are detailed in RP-SCHED11 and RP-SCHED12.
- The Regional Council will recognise the impact of OVERSEER® version upgrades when assessing compliance with Table 12 CNLM values, in comparing proposed nitrogen reductions with the *nitrogen baseline** (2012/2013) and in assessing compliance with any nitrogen leaching limits specified in consent *conditions^*, to ensure comparability between OVERSEER® estimates over time.
- A list of nutrient management models appropriate for use in intensive farming *land** is maintained on the Regional Council's website.

**LF-LW-M21 Industry Based Standards**

**Description**

The Regional Council will examine on an on-going basis relevant industry-based standards, guidelines and codes of practice, recognising that such industry based standards generally represent current best practice and may be relevant for improving the quality of *contaminants** *discharged** to *land** and *water**.

**Who**

Regional Council, with relevant industry sector organisations.

**Links to Policy**

This method implements RPS-LF-LW-P5, RPS-LF-LW-P6, RPS-LF-LW-P7, RPS-LF-LW-P8, RPS-LF-LW-P9, RPS-LF-LW-P10 and RPS-LF-LW-P11.

**Target**

The Regional Council will maintain a database of standards and codes of practice relevant to improving the quality of *discharges** to *land** and *water**.

**LF-LW-M22 Kawa and tikanga framework for mana whenua values**

**Description**

The Regional Council will work with *hapū** and *iwi** in and downstream of the targeted *Water Management Sub-areas** to develop a kawa and tikanga framework to ensure their relationships with ancestral lands, *water**, *sites**, *wāhi tapu** and other *taonga** (including *wāhi tūpuna**) are recognised and provided for in implementing the One Plan provisions for management of existing intensive *land** use farming activities.

**Who**

Regional Council and *hapū** and *iwi**, including Ngāti Turanga, whose *rohe** are within or downstream of the targeted *Water Management Sub-areas**.

**Links to Policy**

This method links to RP-LF-LW-P9(7).

**Target**

To develop and implement a kawa and tikanga framework as soon as practicable with at least one interested *hapū** or *iwi** (which may be in the form of a Mana Whakahono a Rohe).

**Regional Plan – Policies**

**LF-LW-P6: *Good management practices**

When making decisions on *resource consent*^ applications, and setting consent *conditions*^, for activities affecting groundwater and surface *water** quality, the Regional Council must require the implementation of *good management practices** and *best management practices** (and additional measures where necessary) to reduce nitrogen leaching, to the extent that those *good management practices** and measures address the matters in RP-LF-LW-P4, RP-LF-LW-P5, RP-LF-LW-P7, RP-LF-LW-P8 and RP-LF-LW-P9 and contribute to decreasing *contaminant** loads in the relevant *Water Management Sub-area**.

**LF-LW-P8: Management of intensive farming *land** uses**

In order to give effect to RPS-LF-LW-P10 and RPS-LF-LW-P11, intensive farming *land** use activities affecting groundwater and surface *water** quality must be managed in the following manner:

1. The following *land** uses have been identified as intensive farming *land** uses:
    a. *Dairy farming**
    b. *Commercial vegetable growing**
    c. *Cropping**
    d. *Intensive sheep and beef**
2. The intensive farming *land** uses identified in (1) must be regulated where:
    a. They are existing intensive farming *land** uses (i.e. established prior to the date specified in Table 11 on which RP-LF-LW-R14 had legal effect[1]), in the targeted *Water Management Sub-areas** identified in Table 11.
    b. They are new intensive farming *land** uses, in any *Water Management Sub-area** in the Region (that is, established after the date the Plan had legal effect, which is 24 August 2010 for *dairy farming** and 9 May 2013 for *commercial vegetable growing*, cropping** and *intensive sheep and beef**[2]).
3. Nitrogen leaching maximums have been established in Table 12.
4. Except as provided for in RP-LF-LW-P9(6), existing intensive farming *land** uses regulated in accordance with (2)(a) must be managed to ensure that the leaching of nitrogen from those *land** uses achieve at least one of the limits specified in (4)(a), (b), or (c) below:

[1] The third column of Table 11 specifies the date on which the Plan had legal effect in relation to LF-LW-R14 in the targeted *Water Management Sub-areas**.

[2] As explained in footnote 3 to Table 11, the Plan has legal effect in the case of *dairy farming** from 24 August 2010 and for *commercial vegetable growing**, *cropping** and *intensive sheep and beef** it has legal effect from 9 May 2013 for the purpose of regulating new intensive farming *land** use activities under LF-LW-R15 and LF-LW-R18.

a. the *cumulative nitrogen leaching maximum** values for each year specified in Table 12 or the equivalent *OVERSEER® reference file** outputs using the applicable version of OVERSEER®; or

b. for *commercial vegetable growing*,* a minimum reduction in cumulative nitrogen leaching loss from the *land** of 35% relative to the *baseline growing period** and the growing area does not exceed the *baseline commercial growing area**; or

c. for other intensive farming *land** uses, the lesser nitrogen leaching loss rate of:

   i. 80% of the *land's* nitrogen leaching baseline** or

   ii. the *75th percentile nitrogen leaching loss** for the relevant *Water Management Sub-area**;

provided that

d. under (b) and (c) above, the application for consent is lodged no later than [a date twelve months from the operative date of PC2]; and

e. under (b) and (c) above, the minimum nitrogen leaching reductions are achieved within two years of the grant of consent.

5. New intensive farming *land** uses regulated in accordance with (2)(b) must be managed to ensure that the leaching of nitrogen from those *land** uses does not exceed the *cumulative nitrogen leaching maximum** values for each year contained in Table 12.

6. Intensive farming *land** uses regulated in accordance with (2) must exclude cattle from:

   a. A *wetland** or *lake** that is a *rare habitat*, threatened habitat** or *at-risk habitat**.

   b. Any *river** that is permanently flowing or has an *active bed** width greater than 1 metre.

7. All places where cattle cross a *river** that is permanently flowing or has an *active bed** width greater than 1 metre must be culverted or bridged and those culverts or bridges must be used by cattle whenever they cross the *river**.

8. Applications for intensive farming *land** use under RP-LF-LW-P8(4) and RP-LF-LW-P8(5) must demonstrate compliance using the version of OVERSEER® applicable at the date the application is determined. Where the applicable version of OVERSEER® relied on to determine the *cumulative nitrogen leaching maximum** for a *land** use differs from Version 6.5.13, the applicable *cumulative nitrogen leaching maximum** shall be the equivalent OVERSEER® output(s) for the relevant *land use capability class** calculated using the *OVERSEER® reference files** in RP-SCHED11 or the *75th percentile reference files** in RP-SCHED12 and the same version of OVERSEER® relied on by the *land** use applied for.

**LF-LW-P9: *Resource consent*^ decision-making for intensive farming *land** uses**

When making decisions on *resource consent*^ applications, and setting consent *conditions*^, for intensive farming *land** uses the Regional Council must:

1. Ensure the nitrogen leaching from the *land** is managed in accordance with RP-LF-LW-P8.
2. Require implementation of an *environmental action plan** to manage nutrient leaching and run-off, faecal contamination and sediment loss, as part of any intensive farming *land** use.
3. Limit the duration of consents granted under RP-LF-LW-P8(4)(b) and (c) and RP-LF-LW-P9(6)(a) to a period not exceeding ten years.
4. Limit the duration of consents granted under RP-LF-LW-P9(6)(b) to a period not exceeding five years.
5. Ensure that cattle are excluded from surface *water** in accordance with RP-LF-LW-P8(6) and (7) except where landscape or geographical constraints make stock exclusion impractical. In all cases, the *effects** of any unavoidable losses of nitrogen, phosphorus, faecal contamination and sediment must be avoided remedied or mitigated by other works or environmental compensation.

**Circumstances when exceptions will be considered:**

6. Only consider allowing exceptions to (1) for existing intensive farming *land** uses that exceed the limits specified in RP-LF-LW-P8(4) where:
    a. An *environmental action plan** is implemented to ensure nutrient leaching and run-off, faecal contamination and sediment losses from the *land** are reduced to the maximum extent reasonably practicable in the shortest feasible timeframe; or
    b. The existing intensive farming *land** use is to continue for no longer than five years in order to enable the transition to an alternative non-intensive farming *land** use without an increase in nutrient leaching and run-off, faecal contamination and sediment losses from the *land** over that period of time.
7. When considering whether to allow an exception under RP-LF-LW-P9(6)(a), have particular regard to:
    a. The state of the *receiving environment** (including with reference to the surface *water** management values for the relevant *Water Management Sub-area**);
    b. The extent to which the RP-SCHED5 soluble inorganic nitrogen target for the *Water Management Sub-area** is met or exceeded;
    c. The importance of ensuring the rate of reduction in nitrogen leaching loss required by *conditions*^ of consent is proportionate, relative to:
        i. The extent of non-compliance with Table 12 *cumulative nitrogen leaching maximum**; or

ii. For *commercial vegetable growing**, the extent of non-compliance with a 35% reduction in cumulative nitrogen leaching loss from the *land** relative to the *baseline growing period**.

d. Whether all practicable mitigation measures have been proposed or whether additional mitigation measures are required to further reduce nitrogen leaching loss.

e. Whether the required reduction in nitrogen leaching loss is achieved in the shortest feasible timeframe having regard to:

i. The risk and rate of nitrogen leaching;

ii. The urgency required to address nitrogen leaching loss; and

iii. The rationale for the timing and prioritisation of proposed mitigation measures.

**Conditions**

8. Where the *consent authority*^ determines that consent can be granted for an existing intensive farming *land** use under RP-LF-LW-P9(6)(a) the activity must be managed by consent *conditions*^ that:

a. Require the implementation of an *environmental action plan** to reduce the nitrogen leaching loss from the *land** to the maximum extent reasonably practicable in the shortest feasible timeframe;

b. Ensure that nutrient leaching and run-off, faecal contamination and sediment losses from the *land** will reduce over the duration of the *resource consent^;*

c. Specify the timing of mitigation measures necessary to ensure that the nitrogen leaching loss reduction is achieved in the shortest practicable timeframe;

d. Specify the monitoring and reporting requirements, including the supply of OVERSEER® modelling outputs if relevant.

9. Where the *consent authority*^ determines that consent can be granted for an existing intensive farming *land** use under RP-LF-LW-P9(6)(b) the activity must be managed by consent *conditions*^ that:

a. Require the implementation of measures to ensure that nutrient leaching and run-off, faecal contamination and sediment loss from the *land** are reduced to the extent practicable and will not increase over the duration of the consent;

b. Specify the monitoring and reporting requirements, including the supply of OVERSEER® modelling outputs if relevant;

c. Specify the measures or arrangements necessary, including the nature, timing and sequencing of any steps required, to ensure transition out of the intensive farming use of the *land** by the date of expiry of the *resource consent*^ and to prevent resumption of that intensive farming activity on the *land** or establishment of any *land** use activity that would exceed the relevant Table 12

*cumulative nitrogen leaching maximum** or *OVERSEER® reference file** equivalent.

**Information required to be included in applications:**

10. Applications for consent seeking to qualify under RP-LF-LW-P9(6)(a) must include a *nutrient management plan** (including an *environmental action plan**) that details how the proposed practices and measures will reduce nitrogen loss to the maximum extent reasonably practicable in the shortest feasible timeframe;

11. All applications lodged under RP-LF-LW-R14 conditions (3)(b) and (c) must include an assessment of the *nitrogen baseline** (assessed using the equivalent recognised nutrient management model relied on for the assessment under RP-LF-LW-P9(12)(a));

12. All applications lodged under RP-LF-LW-R77 must, in addition, include the following information:

    a. An assessment of the nitrogen leaching loss estimated to result from the proposed activities (assessed using a recognised nutrient management model);

    b. A comparison of the estimated nitrogen leaching loss with the applicable Table 12 values or in the case of *commercial vegetable growing**, a comparison of the estimated nitrogen leaching loss with a 35% reduction in cumulative nitrogen leaching loss from the *land** relative to the *baseline growing period**;

    c. A description of the state of the *receiving environment** (including with reference to the surface *water** management values for the relevant *Water Management Sub-area**); and

    d. A description of the extent to which the RP-SCHED5 soluble inorganic nitrogen target for the *Water Management Sub-area*,* is met or exceeded.

**Rules – Agricultural Activities**

**No changes to Table 11.**

Table 12 sets out the *cumulative nitrogen leaching maximum** for the *land** used for intensive farming *land** use activities within each specified *land use capability class**. The *cumulative nitrogen leaching maximum** values in Table 12 were derived using OVERSEER® 6.5.13.

Where the version of OVERSEER® relied on to determine the *cumulative nitrogen leaching maximum**for a *land**use differs from Version 6.5.13, the applicable *cumulative nitrogen leaching maximum** shall be the equivalent *OVERSEER® reference file** output(s) for the relevant *land use capability class** and year in Table 12 calculated using the *OVERSEER® reference files** in RP-SCHED11 and the same version of OVERSEER® relied on by the *land** use applied for.

**Table 12** *Cumulative nitrogen leaching maximum** by *Land Use Capability Class**

| **Period (from the year that the rule has legal effect)** | *LUC** 1 | *LUC** 2 | *LUC** 3 | *LUC** 4 | *LUC** 5 | *LUC** 6 | *LUC** 7 | *LUC** 8 |
|---|---|---|---|---|---|---|---|---|
| Year 1 | 46 | 41 | 30 | 22 | 19 | 19 | 10 | 3 |
| Year 5 | 41 | 38 | 26 | 20 | 16 | 13 | 8 | 3 |
| Year 10 | 40 | 33 | 24 | 17 | 16 | 13 | 8 | 3 |
| Year 20 | 38 | 32 | 23 | 16 | 15 | 13 | 8 | 3 |

**Table 56** *75th Percentile leaching rates* by targeted *Water Management Sub-area**

| **Catchment** | ***Water Management Sub-area**** | **Maximum nitrogen leaching loss rate (kg N/ha/year)** |
|---|---|---|
| Coastal Rangitīkei | Rang_4 | 29 |
| West Coast lakes, Lake Horowhenua, other coastal *lakes** | Hoki_1a, 1b; West_4; West_5; West_6; West_8; West_9a, 9b | 31 |
| Upper Manawatū and Weber-Tamaki (upstream of Tamaki confluence) | Mana_1a, 1b, 1c; Mana_2a, 2b | 40 |
| Other Upper Manawatū (Upper Tamaki, Tamaki-Hopelands, Upper Kumeti, Hopelands-Tiraumea, Upper Gorge) | Mana_3; Mana_4; Mana_5a, 5b, 5c, 5d, 5e; Mana_6; Mana_9a, 9b, 9c | 40 |
| Mangatainoka | Mana_8a, 8b, 8c, 8d | 42 |

**Regional Plan – Rules**

**LF-LW-R14 Existing intensive farming *land** use activities**

**LF-LW-R14 Classification Controlled Activity**

**LF-LW-R14 Activity**

The use of *land** pursuant to s9(2) RMA for any of the following types of intensive farming:

1. *dairy farming***
2. *commercial vegetable growing***
3. *cropping***
4. *intensive sheep and beef farming***

that was existing in *the Water Management Sub-areas** listed in and from the dates specified in Table 11 and any of the following *discharges** pursuant to ss15(1) or 15(2A) RMA associated with that intensive farming:

5. the *discharge** of *fertiliser** onto or into *land**
6. the *discharge** of *contaminants** onto or into *land** from
    a. the preparation, storage, use or transportation of stock feed on *production land**
    b. the use of a *feedpad**
7. the *discharge** of *grade Aa biosolids** or *compost** onto or into *production land*^
8. the *discharge** of *poultry farm litter** onto or into *production land*^
9. the *discharge**of farm *animal effluent** onto or into *production land*^ (or upon expiry or surrender of any existing consent for that *discharge**) including:
    a. effluent from dairy sheds and *feedpads**
    b. effluent received from piggeries
    c. sludge from farm effluent ponds
    d. poultry farm effluent

and any ancillary *discharge** of *contaminants** into air pursuant to ss15(1) or 15(2A) RMA.

Where the existing intensive farming *land** use is located partly on *land** within one or more of the *Water Management Sub-areas** listed in Table 11 and partly on other *land**, this rule only applies:

10. if at least 20% of the existing intensive farming *land** use is located on *land** within the listed *Water Management Sub-areas**; and
11. to the portion of the existing intensive farming *land** use that is located within the listed *Water Management Sub-areas**.

**LF-LW-R14 Conditions/Standards/Terms**

1. The application must include a *nutrient management plan** which includes, as a minimum, the information specified in RP-SCHED13 (as relevant to the intensive farming *land** use).
2. The intensive farming *land** use must be undertaken in accordance with the *nutrient management plan** approved and thereafter required by any *condition*^ of the *resource consent*^.
3. The *nutrient management plan** prepared under (1) must demonstrate:
    a. that the nitrogen leaching loss from the activity will not exceed the *cumulative nitrogen leaching maximum** specified in Table 12 or the equivalent *OVERSEER® reference file** outputs using the applicable version of OVERSEER®; or
    b. for *commercial vegetable growing*,* a minimum reduction in cumulative nitrogen leaching loss from the *land** of 35% relative to the *baseline growing period** and the growing area does not exceed the *baseline commercial growing area**; or
    c. for other intensive farming *land** uses, a minimum reduction in cumulative nitrogen leaching loss from the *land** to the lesser of:
        i. 80% of the *nitrogen leaching baseline** of the *land**; or
        ii. the *75th percentile nitrogen leaching loss** for the relevant *Water Management Sub-area**; and
    d. that the minimum nitrogen leaching reductions proposed under (3)(b) and (3)(c) above will be achieved within two years of the grant of consent.
4. Any application for consent under (3)(b) or (c) must be lodged no later than [a date twelve months from the operative date of PC2].
5. Cattle must be excluded from:
    a. *wetlands** and *lakes** that are a *rare habitat** or *threatened habitat**, *and*
    b. the *beds** of *rivers** that are permanently flowing or have an *active bed** width greater than 1 m.
6. *Rivers** that are permanently flowing or have an *active bed** width greater than 1 m, that are crossed by cattle must be bridged or culverted, and the cattle must cross via that bridge or culvert, and run-off originating from the carriageway of the bridge or culvert must be *discharged** onto or into *land**.
7. The *discharge** of *fertiliser** onto or into *land** and any ancillary *discharge** of *contaminants** into air must comply with the *conditions*^ of RP-LF-LW-R9.
8. The *discharge** of *contaminants** onto or into *land** from:
    a. the preparation, storage, use or transportation of stock feed on *production land**, or
    b. the use of a *feedpad**

    and any ancillary *discharge** of *contaminants** into air must comply with the *conditions*^ of RP-LF-LW-R10.

9. The *discharge** of *grade Aa biosolids** or *compost** onto or into *production land*^ and any ancillary *discharge** of *contaminants** into air must comply with the *conditions*^ of RP-LF-LW-R11.
10. The *discharge** of *poultry farm litter** onto or into *production land*^ and any ancillary *discharge** of *contaminants** into air must comply with the *conditions*^ of RP-LF-LW-R12.
11. The *discharge** of farm *animal effluent** onto or into *production land*^ including:
    a. effluent from dairy sheds and *feedpads**
    b. effluent received from piggeries
    c. sludge from farm effluent ponds
    d. poultry farm effluent

    and any ancillary *discharge** of *contaminants** into air must comply with the *conditions*^, standards and terms of RP-LF-LW-R16.

**LF-LW-R14 Control/Discretion/Non-Notification**

Control is reserved over:

1. the contents, implementation and review of the *nutrient management plan** for the *land**
2. the nitrogen leaching loss from the *land** where relevant under condition (3)(a) or (c) and the *good management practices** and *best management practices** (and additional measures where necessary) to limit nitrogen leaching loss from the *land** to the limit specified in condition (3) and to avoid, remedy or mitigate nutrient leaching and run-off, faecal contamination and sediment losses from the *land**
3. the matters of control in RP-LF-LW-R16
4. avoiding, remedying or mitigating the *effects** of odour, *dust**, *fertiliser** drift or effluent drift
5. provision of information including the *nutrient management plan**
6. duration of consent
7. review of consent *conditions*^
8. compliance monitoring and reporting, including the timing and frequency of supply to the Regional Council of nitrogen leaching estimates calculated using OVERSEER®
9. the matters in RP-LF-LW-P12.

*Resource consent*^ applications under this *rule*^ will not be notified and written approval of affected persons will not be required (notice of applications need not be *served*^ on affected persons).

**LF-LW-R17 Existing intensive farming *land** use activities not complying with any of the conditions, standards and terms (5) to (11) of RP-LF-LW-R14**

**LF-LW-R17 Classification Restricted Discretionary Activity**

**LF-LW-R17 Activity**

The use of *land** pursuant to s 9(2) RMA for any of the following intensive farming:

1. *dairy farming******
2. *commercial vegetable growing******
3. *cropping******
4. *intensive sheep and beef farming******

that was existing in *the Water Management Sub-areas** listed in and from the dates specified in Table 11, and any of the following *discharges** pursuant to ss 15(1) or 15(2A) RMA associated with intensive farming, that do not comply with one or more of the *conditions*^, standards and terms specified in RP-LF-LW-R14 (5) to (11):

5. the *discharge**of *fertiliser** onto or into *land**
6. the *discharge** of *contaminants** onto or into *land** from
    a. the preparation, storage, use or transportation of stock feed on *production land*^
    b. the use of a *feedpad**
7. the *discharge** of *grade Aa biosolids** or *compost** onto or into *production land*^
8. the *discharge** of *poultry farm litter** onto or into *production land*^
9. the *discharge** of farm *animal effluent** onto or into *production land*^ (or upon expiry or surrender of any existing consent for that *discharge**) including:
    a. effluent from dairy sheds and *feedpads**
    b. effluent received from piggeries
    c. sludge from farm effluent ponds
    d. poultry farm effluent

and any ancillary *discharge** of *contaminants** into air pursuant to ss15(1) or 15(2A) RMA

**LF-LW-R17 Conditions/Standards/Terms**

1. The activity must comply with the requirements specified in conditions, standards and terms (1) to (4) of RP-LF-LW-R14.
2. The activity must comply with the requirements specified in conditions, standards and terms (5) to (11) of RP-LF-LW-R14, except to the extent that consent is sought under RP-LF-LW-R17 to not comply with them.

**LF-LW-R17 Control/Discretion/Non-Notification**

Discretion is restricted to:

1. the contents, implementation and review of the *nutrient management plan** for the *land**
2. the nitrogen leaching loss from the *land**
3. the measures including *good management practices** and *best management practices** (and additional measures where necessary) to achieve compliance with the limit specified in RP-LF-LW-R14 condition (4) and to avoid, remedy or mitigate nutrient leaching and run-off, faecal contamination and sediment losses from the *land**
4. measures to exclude cattle from *wetlands** and *lakes** that are a *rare habitat** or *threatened habitat**, and *rivers** that are permanently flowing or have an *active bed** width greater than 1 m
5. the bridging or culverting of *rivers** that are permanently flowing or have an *active bed** width greater than 1 m that are crossed by cattle
6. the matters referred to in the *conditions*^ of RP-LF-LW-R9, RP-LF-LW-R10, RP-LF-LW-R11 and RP-LF-LW-R12
7. the matters referred to in the *conditions*^ of RP-LF-LW-R16 and the matters of control in RP-LF-LW-R16
8. avoiding, remedying or mitigating the *effects** of odour, *dust**, *fertiliser** drift or effluent drift
9. provision of information including the annual *nutrient management plan**
10. duration of consent
11. review of consent *conditions*^
12. compliance monitoring
13. the matters in RP-LF-LW-P12.

**LF-LW-R77 Existing intensive farming *land** use activities not complying with conditions, standards, or terms (1) to (4) of RP-LF-LW-R14 or condition (1) of RP-LF-LW-R17.**

**LF-LW-R77 Classification Discretionary Activity**

**LF-LW-R77 Activity**

The use of *land** pursuant to s 9(2) RMA for any of the following intensive farming:

1. *dairy farming**
2. *commercial vegetable growing**
3. *cropping**
4. *intensive sheep and beef farming**

that was existing in the *Water Management Sub-areas** listed in and from the dates specified in Table 11, and any of the following *discharges** pursuant to ss 15(1) or 15(2A) RMA associated with intensive farming, that do not comply with conditions, standards and term (1) to (4) of RP-LF-LW-R14 or condition (1) of RP-LF-LW-R17.

**LF-LW-R77 Conditions/Standards/Terms**

1. All applications lodged under RP-LF-LW-R77 must include the information required by RP-LF-LW-P9(10) and (12).

**Rule Guide:**

The location of archaeological *sites** when defined by a single co-ordinate is unlikely to define the true extent of subsurface archaeological evidence. The 50 metre rule should apply from the outer perimeter of the *site**.

Some activities in *rare habitats**, *threatened habitats** and *at-risk habitats** are regulated by RP-ECO-R1 and RP-ECO-R2. *Discharges** from agricultural activities at other locations are regulated as follows:

1. ***Discharges**** **not covered by rules** - Agricultural *discharges** pursuant to ss15(1) RMA that are not covered by the rules above are a **discretionary activity** under RP-LF-LW-R38.

## Glossary

A term or expression that is defined in this glossary is marked with the symbol * when used in the Plan.

A term or expression that is defined in the Resource Management Act 1991 (RMA) and used in the Plan, but which is not included in this glossary, has the same meaning as in the RMA. Definitions provided in the RMA are not repeated in this glossary. A term or expression that is defined in the RMA is marked with the symbol ^ when used in the objectives, policies or rules of the Plan, this glossary and the schedules to the Plan, other than Schedules F, G and I.

When:

1. * is not used to identify a term anywhere in the Plan, or
2. ^ is not used to identify a term in the objectives, policies or rules of the Plan, this glossary or the schedules to the Plan

the term has its ordinary meaning.

**New Definition:**

**Baseline Commercial Growing Area** means the aggregated area of *land** utilised for commercial vegetable production in the 2012/2013 growing season and includes all *land** under the control (owned or leased) of a single grower or *enterprise**.

**New Definition:**

**Baseline Growing Period** means the 2012/2013 growing season.

**New Definition:**

**Crop Rotation** is the systematic planting of different crops in sequence over multiple years within the same growing space, or across changing *land** parcels, which can include a pasture phase or fallow period. This process helps maintain soil structure and nutrients in the soil, reduce soil erosion, and reduces plant diseases and pests.

**New Definition:**

**Enterprise** means one or more parcels of *land** held in single or multiple ownership to support the principle *land** use, or *land** on which the *land** use is reliant, which constitutes a single operating unit for the purposes of management.

**New Definition:**

**Nitrogen Baseline** means the *discharge** of nitrogen below the root zone, as modelled using a recognised nutrient management model, for the period 1 July 2012 to 30 June 2013.

**New Definition:**

**75$^{th}$ Percentile Nitrogen Leaching Loss** means the maximum nitrogen leaching loss rate specified for each *Water Management Sub-area** in Table 56 or, where the version of OVERSEER® relied on in an application for consent differs from Version 6.5.13, the equivalent OVERSEER® output for the relevant *Water Management Sub-area** calculated using the *75$^{th}$ percentile reference file** in RP-SCHED12 and the same version of OVERSEER® relied on by the *land** use applied for.

**New Definition:**

**75th Percentile Reference File** means the OVERSEER® input file specifications and methodology used to establish the *cumulative nitrogen leaching maximum** for each of the eight *land use capability classes** specified in Table 56 as detailed in RP-SCHED11.

**New Definition:**

**Good management practices** refers to practicable measures and methods, including those established in industry-based standards and guidance documents, which are tailored for use at a farm level to minimise the *effects** of *discharges** to *land** and *water**.*

**New definition:**

**Best Management Practices** means measures, additional to *good management practices** that are tailored for a farming or growing system to minimise nitrogen leaching loss from the *land**.

**New definition:**

**Environmental action plan** means a programme of practices and measures included in a *Nutrient Management Plan** for reducing nitrogen leaching loss from the *land**, nutrient leaching and run-off, faecal contamination and sediment loss.

**New definition:**

**OVERSEER® Reference File** means the OVERSEER® input file specifications and methodology used to establish the *cumulative nitrogen leaching maximum** for each of the eight *land use capability classes** specified in Table 12 as detailed in RP-SCHED11.

**Amendment to Existing Definition:**

**Nutrient Management Plan** means a plan prepared, either:

1. in accordance with the Code of Practice for Fertiliser Nutrient Management (NZ Fertiliser Manufacturers' Research Association 2023) which records and takes into account all sources of nutrients, sediment and pathogens for intensive farming (and includes copies of the input and output files of a recognised nutrient management model used to prepare the plan) and identifies all current and relevant nutrient management practices and mitigations and which is prepared by a person who has a Certificate of Completion in Advanced Sustainable Nutrient Management from Massey University or is a freshwater farm plan certifier; or
2. as a component of a certified freshwater farm plan which records and takes into account all sources of nutrients for intensive farming (and includes copies of the input and output files of a recognised nutrient management model used to prepare the plan) and identifies all current and relevant nutrient management practices and mitigations and addresses potential sediment loss and faecal contamination.

**Amendment to Existing Definition:**

**Cumulative nitrogen leaching maximum** means the total kilograms of nitrogen leached per hectare per year for the total area of a farm (including any *land** not used for grazing) and is calculated using the values for each *land use capability class** specified in Table 12. The *cumulative nitrogen leaching maximum** for the *land** use must be determined using the version of OVERSEER® applicable on the date the application is determined, calculated using

the *OVERSEER® reference files** where the OVERSEER® version differs from the version used to establish the *cumulative nitrogen leaching maximums** in Table 12.

**New Schedules:**

**Schedule 11 – *OVERSEER® Reference Files**:* OVERSEER® Inputs**

**Schedule 12 – *75th Percentile Reference Files**:* OVERSEER® Inputs**

**Schedule 13 – Requirements of nutrient management plans**

# RP – SCHED11 – *OVERSEER® Reference Files**: OVERSEER® Inputs

Although there are substantial differences between the values of inputs to the eight *OVERSEER® reference files**, numerous inputs are common to all the files. Therefore, all the inputs used to generate the reference file for the LUC I farm, which is the base farm, are listed. Applying OVERSEER® to the following LUC files will establish the Year 1 *cumulative nitrogen leaching maximums**. The applicable *cumulative nitrogen leaching maximums** for Year 5, Year 10 and Year 20 are established by applying the following percentage reductions:

| | Percentage decrease to calculate: | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **LUC 1** | **LUC 2** | **LUC 3** | **LUC 4** | **LUC 5** | **LUC 6** | **LUC 7** | **LUC 8** |
| Year 5 | 10.0% | 7.4% | 12.5% | 11.1% | 18.8% | 33.3% | 25.0% | 0.0% |
| Year 10 | 13.3% | 18.5% | 20.8% | 22.2% | 18.8% | 33.3% | 25.0% | 0.0% |
| Year 20 | 16.7% | 22.2% | 25.0% | 27.8% | 25.0% | 33.3% | 25.0% | 0.0% |

**The LUC I (base) file:**

**Farm scenario**

*Farm*

- Location: By Region - East Coast North Island

*Block setup*

- Block areas: Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: No difference between blocks

*Dairy animals*

- Peak cow numbers: 374 cows (breeding numbers NOT constant)
- Breed: Friesian
- Average weight: Default reading falsely as 462 kg/animal, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: Default 23% (default for 6.2.3)
- Milk solids (kg/ha): 1275 kg MS/ha
- Lactation length: 270 (default for 6.2.3)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

**Non-effluent block**

*General*

- Topography: Flat
- Distance from coast: 50 km

*Climate*

- Daily rainfall pattern: 731-1450 mm, low
- Rainfall: 1200 mm
- Temperature: Default 12.3 $^{o}$C (default for 6.2.3)
- PET: Use default PET (801-950 mm/yr)
- PET seasonal variation: Moderate

*Pasture*

- Development status: No input for development status
- Pasture type: Ryegrass/white clover
- Specify pasture quality: Not specified (defaults for 6.2.3 are different to defaults for v5.2.6, but are not shown)

*Soil*

- Soil order: Recent
- Top soil texture: Silt loam
- Lower profile: Medium
- Soil tests: “Replace missing test data with typical values”
- Susceptibility to pugging: Occasional

*Supplements made*

- Category: Silage

- Weight: 80 tonnes (dry weight basis) (automatic in v5.2.6)
- Destination: Non-effluent block

**Effluent block**

*General*

- Topography: Flat
- Distance from coast: 50 km

*Climate*

- Daily rainfall pattern: 731-1450 mm, low
- Rainfall: 1200 mm
- Temperature: Default 12.3 °C (default for 6.2.3)
- PET: Use default PET (801-950 mm/yr)
- PET seasonal variation: Moderate

*Pasture*

- Development status: No input for development status
- Pasture type: Ryegrass/white clover
- Specify pasture quality: Not specified (defaults for 6.2.3 are different to defaults for v5.2.6, but are not shown)
- *Soil*
- Soil order: Recent
- Top soil texture: Silt loam
- Lower profile: Medium
- Soil tests: "Replace missing test data with typical values"
- Susceptibility to pugging: Occasional

*Supplements made*

- Category: Silage
- Weight: 8 tonnes (dry weight basis) (automatic in v5.2.6)
- Destination: Effluent block

*Effluent*

- Effluent application rate: 12-24 mm
- Solids effluent application: Pond solids/sludge (December)

**The LUC II file:**

**Farm scenario**

*Farm*

- Location — By Region - East Coast North Island

*Block setup*

- Block areas: — Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: — No difference between blocks

*Dairy animals*

- Peak cow numbers: — 341 cows (breeding numbers NOT constant)

*Dairy animals*

- Peak cow numbers: — 374 cows (breeding numbers NOT constant)
- Breed: — Friesian
- Average weight: — Default reading falsely as 462 kg/animal, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: — Default 23% (default for 6.2.3)
- Milk solids (kg/ha): — 1150 kg MS/ha
- Lactation length: — 270 (default for 6.2.3)
- Replacements grazed off: — Weaning
- Effluent disposal system: — Holding pond;
- Pond solids: — Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: — Spray regularly

**Non-effluent block**

*Soil*

- Soil order: — Brown

*Supplements made*

- Category: — Silage
- Weight: — 73 tonnes (dry weight basis) (automatic in v5.2.6)

**Effluent block**

- Soil order: — Brown

*Supplements made*

- Category: — Silage
- Weight: — 7 tonnes (dry weight basis) (automatic in v5.2.6)

**The LUC III file:**

**Farm scenario**

*Farm*

- Location: By Region - East Coast North Island

*Block setup*

- Block areas: Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: No difference between blocks

*Dairy animals*

- Peak cow numbers: 297 cows (breeding numbers NOT constant)
- Breed: Friesian
- Average weight: Default reading falsely as 462 kg/animal, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: Default 23% (default for 6.2.3)
- Milk solids (kg/ha): 1120 kg MS/ha
- Lactation length: 270 (default for 6.2.3)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

**Non-effluent block**

*General*

- Topography: Rolling

*Soil*

- Soil order: Pallic

*Supplements made*

- Category: Silage
- Weight: 64 tonnes (dry weight basis) (automatic in v5.2.6)

**Effluent block**

*General*

- Topography: Rolling

*Soil*

- Soil order: Pallic

*Supplements made*

- Category: Silage
- Weight: 6 tonnes (dry weight basis) (automatic in v5.2.6)

**The LUC IV file:**

**Farm scenario**

*Farm*

- Location: By Region - East Coast North Island

*Block setup*

- Block areas: Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: No difference between blocks

*Dairy animals*

- Peak cow numbers: 209 cows (breeding numbers NOT constant)
- Breed: Friesian
- Average weight: Default reading falsely as 462 kg/animal, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: Default 23% (default for 6.2.3)
- Milk solids (kg/ha): 700 kg MS/ha
- Lactation length: 270 (default for 6.2.3)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

**Non-effluent block**

*General*

- Topography: Rolling

*Soil*

- Soil order: Pallic

*Supplements made*

- Category: Silage
- Weight: 45 tonnes (dry weight basis) (automatic in v5.2.6)

**Effluent block**

*General*

- Topography: Rolling

*Soil*

- Soil order: Pallic

*Supplements made*

- Category: Silage
- Weight: 4 tonnes (dry weight basis) (automatic in v5.2.6)

**The LUC V file:**

**Farm scenario**

*Farm*

- Location — By Region - East Coast North Island

*Block setup*

- Block areas: — Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: — No difference between blocks

*Dairy animals*

- Peak cow numbers: — 176 cows (breeding numbers NOT constant)
- Breed: — Friesian
- Average weight: — Default reading falsely as 462 kg/animal, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: — Default 23% (default for 6.2.3)
- Milk solids (kg/ha): — 590 kg MS/ha
- Lactation length: — 270 (default for 6.2.3)
- Replacements grazed off: — Weaning
- Effluent disposal system: — Holding pond;
- Pond solids: — Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: — Spray regularly

**Non-effluent block**

*General*

- Topography: — Easy hill

*Soil*

- Soil order: — Pallic

*Supplements made*

- Category: — Silage
- Weight: — 38 tonnes (dry weight basis) (automatic in v5.2.6)

**Effluent block**

*General*

- Topography: — Easy hill

*Soil*

- Soil order: — Pallic

*Supplements made*

- Category: — Silage
- Weight: — 4 tonnes (dry weight basis) (automatic in v5.2.6)

**The LUC VI file:**

**Farm scenario**

*Farm*

- Location — By Region - East Coast North Island

*Block setup*

- Block areas: — Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: — No difference between blocks

*Dairy animals*

- Peak cow numbers: — 165 cows (breeding numbers NOT constant)
- Breed: — Friesian
- Average weight: — Default reading falsely as 462 kg/animal, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: — Default 23% (default for 6.2.3)
- Milk solids (kg/ha): — 555 kg MS/ha
- Lactation length: — 270 (default for 6.2.3)
- Replacements grazed off: — Weaning
- Effluent disposal system: — Holding pond;
- Pond solids: — Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: — Spray regularly

**Non-effluent block**

*General*

- Topography: — Easy hill

*Soil*

- Soil order: — Pallic

*Supplements made*

- Category: — Silage
- Weight: — 36 tonnes (dry weight basis) (automatic in v5.2.6)

**Effluent block**

*General*

- Topography: — Easy hill

*Soil*

- Soil order: — Pallic

*Supplements made*

- Category: — Silage
- Weight: — 4 tonnes (dry weight basis) (automatic in v5.2.6)

**The LUC VII file (differences from LUC I – base):**

**Farm scenario**

*Farm*

- Location — By Region - East Coast North Island

*Block setup*

- Block areas: — Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: — No difference between blocks

*Dairy animals*

- Peak cow numbers: — 5 cows (breeding numbers NOT constant)
- Breed: — Friesian
- Average weight: — Default reading falsely as 462 kg/animal, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: — Default 23% (default for 6.2.3)
- Milk solids (kg/ha): — 185 kg MS/ha
- Lactation length: — 270 (default for 6.2.3)
- Replacements grazed off: — Weaning
- Effluent disposal system: — Holding pond;
- Pond solids: — Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: — Spray regularly

**Non-effluent block**

*General*

- Topography: — Easy hill

*Soil*

- Soil order: — Pallic

*Supplements made*

- Category: — Silage
- Weight: — 12 tonnes (dry weight basis) (automatic in v5.2.6)

**Effluent block**

*General*

- Topography: — Easy hill

*Soil*

- Soil order: — Pallic

*Supplements made*

- Category: — Silage
- Weight: — 1 tonnes (dry weight basis) (automatic in v5.2.6)

**The LUC VIII file:**

**Farm scenario**

*Farm*

- Location — By Region - East Coast North Island

*Block setup*

- Block areas: — Total 110 ha
- Relative productivity: — No difference between blocks

*Beef/dairy grazers*

- Block areas: — 1 RSU

*Block setup*

- Block areas: — 109 ha Trees, 1 ha Pasture

**Trees**

*General*

- Bush type — Native

**Pasture**

*Block general*

- Topography: — Steep hill

*Soil*

- Soil order: — Pallic

# RP – SCHED12 – *75th Percentile Reference Files**: OVERSEER® Inputs

***75th Percentile Reference File**** **farm inputs for the following *Water Management Sub-areas**:**

- Lake Horowhenua Hoki_1a, Hoki_1b
- Kaitoke Lakes West_4
- Southern Wanganui Lakes West_5
- Northern Manawatū Lakes West_6
- Lake Papaitonga West_8
- Waikawa West_9a, West_9b

**Farm scenario**

*Farm*

- Location: By Region – Manawatu/Whanganui

*Block setup*

- Block areas: Total ha**:** 105 ha Non-effluent, 84 ha Effluent 21 ha
- Relative productivity: No difference between blocks

*Dairy animals*

- Peak cow numbers: 300 cows
- Breed: Friesian
- Replacement rate: Default 23% (default for 6.5.6)
- Milk solids (kg/ha): 1000 kg MS/ha
- Lactation length: 266 (default for 6.5.6)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

**Non-effluent block**

*General*

- Topography: Flat
- Distance from coast: 10 km

*Climate*

- Rainfall: 1197 mm
- Temperature: Default 13.2 °C (default for 6.5.6)
- PET: Use default PET (827 mm/yr)

*Pasture*

- Pasture type: Ryegrass/white clover

*Soil*

- S-map: Long_26a.1 (23.2%), Wind_16a.1 (23%), Rahu_3a.1 (15.5%), Hind_18a.3 (11.9%), Paro_6a.1 (9.8%), Wiku_34a.1 (9.5%), Mahin_7a.1 (7.1%)
- Soil tests: "Using soil default values 6.5.6"
- Susceptibility to pugging: Occasional

*Supplements imported*

- Category: Maize silage (187 t) and Grass silage (187 T)
- Weight: 374 tonnes (dry weight basis)

- Destination: All to Feedpad (used August to December)

*Nitrogen fertiliser*

- Urea: 79 kg N/ha/yr

**Effluent block**

*General*

- Topography: Flat
- Distance from coast: 10 km

*Climate*

- Rainfall: 1197 mm
- Temperature: Default 13.2 °C (default for 6.5.6)
- PET: Use default PET (827 mm/yr)

*Pasture*

- Pasture type: Ryegrass/white clover

*Soil*

- S-map: Long_26a.1 (45%), Wind_16a.1 (45%), Hind_18a.3 (10%)
- Soil tests: "Replace missing test data with typical values"
- Susceptibility to pugging: Occasional

*Effluent*

- Effluent application rate: 12-24 mm
- Solids effluent application: Pond solids/sludge (November)

*Nitrogen fertiliser*

- Urea: 79 kg N/ha/yr

***75th Percentile Reference File**** **farm inputs for the following *Water Management Sub-areas*:**

- Upper Mangatainoka Mana_8a
- Middle Mangatainoka Mana_8b
- Lower Mangatainoka Mana_8c
- Makakahi Mana_8d

**Farm scenario**

*Farm*

- Location: By Region - East Coast North Island

*Block setup*

- Block areas: Total 144 ha**:** 109 ha Non-effluent, 35 ha Effluent
- Relative productivity: No difference between blocks

*Dairy animals*

- Peak cow numbers: 387 cows
- Breed: Friesian
- Replacement rate: Default 23% (default for 6.5.6)
- Milk solids (kg/ha): 1000 kg MS/ha
- Lactation length: 266 (default for 6.5.4)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

**Non-effluent block**

*General*

- Topography: Flat
- Distance from coast: 50 km

*Climate*

- Rainfall: 1409 mm
- Temperature: Default 12.6 °C (default for 6.5.6)
- PET: Use default PET (902 mm/yr)

*Pasture*

- Pasture type: Ryegrass/white clover

*Soil*

- S- map: Waim_10a.1 (85% of area) and Kaia_5a.1 (15% of area)
- PAW: 90 mm
- Soil tests: "Using soil default values 6.5.6"
- Susceptibility to pugging: Winter

*Supplements imported*

- Category: Maize silage (150 t) and Grass silage (150 T)
- Weight: 300 tonnes (dry weight basis)
- Destination: All to Feedpad (used August to December)

*Nitrogen fertiliser*

- Urea: 140 kg N/ha/yr

**Effluent block**

*General*

- Topography: Flat
- Distance from coast: 50 km

*Climate*

- Rainfall: 1403 mm
- Temperature: Default 12.6 °C (default for 6.5.6)
- PET: Use default PET (906 mm/yr)

*Pasture*

- Pasture type: Ryegrass/white clover

*Soil*

- S- map: Waim_10a.1 (85% of area) and Kaia_5a.1 (15% of area)
- Soil tests: "Replace missing test data with typical values"
- Susceptibility to pugging: Winter

*Effluent*

- Effluent application rate: 12-24 mm
- Solids effluent application: Pond solids/sludge (November) 1 yr.

*Nitrogen fertiliser*

- Urea: 140 kg N/ha/yr

***75th Percentile Reference File**** **farm inputs for the following *Water Management Sub-area**:**

- Coastal Rangitīkei Rang_4

**Farm scenario**

*Farm*

- Location: By Region – Manawatu/Whanganui

*Block setup*

- Block areas: Total 246 ha**:** 164 ha Non-effluent, 82 ha Effluent
- Relative productivity: No difference between blocks

*Dairy animals*

- Peak cow numbers: 726 cows
- Breed: Friesian
- Replacement rate: Default 23% (default for 6.5.6)
- Milk solids (kg/ha): 1363 kg MS/ha
- Lactation length: 266 (default for 6.5.6)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

**Non-effluent block**

*General*

- Topography: Flat
- Distance from coast: 10 km

*Climate*

- Rainfall: 970 mm
- Temperature: Default 12.2 °C (default for 6.5.6)
- PET: Use default PET (925 mm/yr)

*Pasture*

- Pasture type: Ryegrass/white clover

*Soil*

- Soil order: Recent
- Lower profile ‘LIght’ texture group
- PAW: 54 mm
- Soil tests: “Using soil default values 6.5.6”
- Susceptibility to pugging: Occasional

*Supplements imported*

- Category: Maize silage (532 t) and Grass silage (532 T)
- Weight: 1064 tonnes (dry weight basis)
- Destination: All to Feedpad (used August to December)

*Nitrogen fertiliser*

- Urea: 168 kg N/ha/yr

**Effluent block**

*General*

- Topography: Flat
- Distance from coast: 10 km

*Climate*

- Rainfall: 968 mm
- Temperature: Default 12.2 $^{o}$C (default for 6.5.6)
- PET: Use default PET (925 mm/yr)

*Pasture*

- Pasture type: Ryegrass/white clover

*Soil*

- Soil order: Recent
- Lower profile 'Light' texture group
- Soil tests: "Replace missing test data with typical values"
- Susceptibility to pugging: Occasional

*Effluent*

- Effluent application rate: 12-24 mm
- Solids effluent application: Pond solids/sludge (November) 1 year

*Nitrogen fertiliser*

- Urea: 168 kg N/ha/yr

***75th Percentile Reference File**** **farm inputs for the following *Water Management Sub-areas*:**

- Upper Manawatū Mana_1a
- Mangatewainui Mana_1b
- Mangatoro Mana_1c
- Weber Tamaki Mana_2a
- Mangatera Mana_2b
- Upper Tamaki Mana_3
- Upper Kumeti Mana_4
-
- Tamaki-Hopelands Mana_5a
- Lower Tamaki Mana_5b
- Lower Kumeti Mana_5c
- Oruakeretaki Mamna_5d
- Raparapawai Mana_5e
- Hopelands-Tiraumea Mana_6
- Upper Gorge Mana_9a
- Mangapapa Mana_9b
- Mangaatua Mana_9c

**Farm scenario**

*Farm*

- Location: By Region - East Coast North Island

*Block setup*

- Block areas: Total 104 ha**:** 74 ha Non-effluent, 26 ha Effluent
- Relative productivity: No difference between blocks

*Dairy animals*

- Peak cow numbers: 272 cows
- Breed: Friesian
- Replacement rate: Default 23% (default for 6.5.6)
- Milk solids (kg/ha): 1000 kg MS/ha
- Lactation length: 266 (default for 6.5.4)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

**Non-effluent block**

*General*

- Topography: Flat
- Distance from coast: 50 km

*Climate*

- Rainfall: 1502 mm
- Temperature: Default 12.2 °C (default for 6.5.6)
- PET: Use default PET (904 mm/yr)

*Pasture*

- Pasture type: Ryegrass/white clover

*Soil*

- Soil group: Recent
- Lower profile 'Medium' texture group
- Soil tests: "Using soil default values 6.5.6"
- Susceptibility to pugging: Winter

*Supplements imported*

- Category: Maize silage (157 t) and Grass silage (157 T)
- Weight: 314 tonnes (dry weight basis)
- Destination: All to Feedpad (used August to December)

*Nitrogen fertiliser*

- Urea: 43 kg N/ha/yr

**Effluent block**

*General*

- Topography: Flat
- Distance from coast: 50 km

*Climate*

- Rainfall: 1500 mm
- Temperature: Default 12.2 $^{o}$C (default for 6.5.6)
- PET: Use default PET (904 mm/yr)

*Pasture*

- Pasture type: Ryegrass/white clover

*Soil*

- Soil order: Recent
- Lower profile 'Medium' texture group
- Soil tests: "Replace missing test data with typical values"
- Susceptibility to pugging: Winter

*Effluent*

- Effluent application rate: < 12 mm
- Solids effluent application: Pond solids/sludge (November)

*Nitrogen fertiliser*

- Urea: 43 kg N/ha/yr

# RP – SCHED13 – Requirements of *nutrient management plans**

1. *Property** details (address(es) and legal description of all *land** being farmed (including owned and leased *land**), valuation number, owner's address and contact details, other identifier details e.g. dairy supply number);
2. *Nutrient management plan** administration details (e.g. the names and contact details of the person(s) responsible for implementing the *nutrient management plan**, planned review date);
3. A description of the natural and physical characteristics of the *land** and an explanation of how these influence the risk of *contaminant** *discharge** (e.g. soil types, drainage, water-holding capacity (profile available water), topography, *land** use capability, climate and rainfall);
4. Map(s) or aerial photograph(s) at a scale that clearly show:
    a. The *property** boundaries of the *land** being farmed (both owned and leased *properties**);
    b. The boundaries of the main *land** management units, farm block map and block areas (in hectares);
    c. The location of *waterbodies** within the *property** and, where there is potential for nutrient or sediment contamination of downstream *waterbodies**, *waterbodies** immediately downstream of the land* (including permanently or intermittently flowing *rivers**, streams, drains, *artificial watercourses**, *wetlands**, *lakes** and springs and identifying the names of named *waterbodies**);
    d. The location of riparian vegetation and fences (or other stock proof barriers) adjacent to any of the *waterbodies**;
    e. The location of any stock crossing points or *structures** over any of the *waterbodies** that meet the criteria for stock exclusion where stock have access; and
    f. The location of critical source areas and sources of potentially high *contaminant** loss (including all landscape features that accumulate surface *water** runoff and have the potential to deliver nitrogen, phosphorus, sediment or microbial pathogens to *waterbodies** (e.g. gullies, swales, depressions) and 'hotspots' (e.g. offal pits, *fertiliser** and *compost** storage areas, tracks and stock laneways, woolsheds and stock yards) and drainage outlets from these areas).
5. A description of the farming or growing activities to be undertaken, including as relevant to the farm type:
    a. Stock type and stock classes (e.g. monthly average stock numbers, production data, grazing on/off movements, supplement types and amounts used, animal distribution across blocks);
    b. Pasture and crop details (e.g. pasture types and production, *crop rotations** and yields, crop sowing and harvest dates, crop yields and residue management, supplementary feed details);

c. Nutrient inputs (e.g. *fertiliser** products, rates timing and blocks applied to, imported feed type and quantity, organic inputs (including manure, compost, slurry), imported organic materials, recent soil test results);
d. Irrigation and *water** use (e.g. irrigation system type, application depth, scheduling method, typical irrigation months);
e. Effluent system information (e.g. effluent system type, effluent application areas, method, timing and frequency of application to *land**);
f. *Structures** (e.g. details of *structures** used for housing animals, including any associated effluent management system);

6. A nutrient budget (including an assessment of nitrogen leaching loss from the intensive farming *land** use activities and mitigations proposed);
7. Identification of environmental risks (e.g. farm-scale risk of nitrogen leaching loss, phosphorous loss, critical source areas, steep or erosion-risk *land**, proximity to *waterbodies**, high-risk seasonal periods);
8. An *environmental action plan** that includes mitigation measures to address the risks identified under (7) (including a map or plan(s) showing proposed location(s) of mitigation measures where relevant), except that an *environmental action plan** is not required for applications that qualify for consent under RP-LF-LW-P9(6)(b).