Nutrient Management Plan

User Guide 2022-2027

BAY OF PLENTY REGIONAL COUNCIL
TOI MOANA

Contents

Introduction

This User Guide is intended to provide guidance and accompany the Nutrient Management Plans (NMP). It is created for the purpose of meeting the requirement of Lake Rotorua Nutrient Management provisions in the Regional Natural Resources Plan (RNRP) and improving farm environment practices.

Cover page

The text box at the bottom of the cover page should be filled out with:

- the consent applicant/holder name,
- the physical address(es) of the property,
- the property identification number (PIN), as provided by Bay of Plenty Regional Council (BOPRC),
- the landuse consent number, as provided by BOPRC, and
- the date upon which the NMP was signed by the consent applicant/holder.

Declaration page

This page is where all parties sign to acknowledge the farm system and actions set out in the document. The Land Use Advisor (LUA) should sign this section, acknowledging the information below:

(a) I am a suitably qualified and experienced person as defined in the Bay of Plenty Regional Natural Resources Plan,

(b) I have viewed the property and consulted with the consent applicant/holder (s) in the development of this NMP,

(c) The modelled scenario is feasible and accurately represents the proposed farm system, and

(d) I certify that this NMP has been prepared in accordance with Schedule LR Six – Nutrient Management Plan requirements of the Bay of Plenty Regional Natural Resources Plan.

The Land Use Advisor then meets with the farm business operator to get the farmer declaration signed.

The LUA should have already presented the NMP for review to the farmer prior to the signing stage. Land Management Officers (LMOs) are available to accompany the LUA to this meeting if required. This will enable the LUA to explain any of the mitigations/farm system changes proposed to the farmer, and the LMO to answer any Regional Council queries, should they have any questions at the signing stage.

Regional Council staff will fill out the BOPRC Quality Assurance Process text box.

OVERSEER® analyses are reviewed for consistency with BOPRC and OVERSEER® data input protocols.

The Nutrient Management Plan is reviewed to ensure it meets the requirements of Regional Natural Resources Plan.

Section 1 Property details

These tables are based on Clause 1 in Schedule LR Six: Nutrient Management Plan requirements of the Regional Natural Resources Plan, plus additional general information about the farm that the NMP user may find useful.

1.1 Farm and consent holder/applicant details (Schedule LR Six)

- The NMP template uses the term 'farm' as equivalent to the Regional Natural Resources Plan's 'property/farming enterprise' which is defined as:

  "A single operating unit regardless of its ownership structure, size, arrangement and number of parcels and legal tenure."
- The Consent applicant's/holder's name is generally the farm name or the farmer's trading name, company name, trust name, personal name etc.
- The physical address is the address of the properties covered by this NMP.
- The name of contact person in the NMP is the person responsible for implementing the NMP. This should be the same person that signs the consent applicant/holder declaration. The person responsible for managing the property/farming enterprise must still be involved in the NMP process to ensure he/she understands how to implement the actions stated, their details should be listed below.
- The postal address is the mailing address of the consent applicant/holder. This may differ from the physical address of the property.
- A home or mobile number for the consent applicant/holder is required. At least one phone number must be entered.
- Description of ownership structure [e.g. Trust, corporate entity etc. – if Trust, then Trustees' names should be included; if corporate entity then provide companies number etc].
- Legal description for each title that makes up the property and farm identifier (PIN) as provided by BOPRC.
- Name and contact details of the person responsible for managing the property/farming enterprise if different from consent holder/applicant described above.

1.2 Property area

- Total property area covered by this NMP includes the whole property and non-effective area e.g. non-grazed trees (both forestry and bush blocks) and house blocks, as they contribute to total farm nitrogen losses. Including area outside the Lake Rotorua groundwater catchment and/or the BOPRC boundary.
- Total property area in the Lake Rotorua groundwater catchment subject to nutrient rules as shown in Map LR 1; may differ to the total property area as part of the farm may be outside the Lake Rotorua groundwater catchment.
- Benchmarked effective area in the Lake Rotorua groundwater catchment subject to nutrient rules as shown in Map LR 1: is the area that stock can access and includes grazed tree blocks from the 2001-2004 period. This information is provided by BOPRC and is used to categorise the property in Lake Rotorua Nutrient Management rules in Regional Natural Resources Plan. Actual effective area may vary from the 2001-2004 area.

1.3 Legal details and parcel

- This table should state all the legal parcels of land covered in this NMP and includes all owned, leased and used (formally and informally) land which forms this property/farming enterprise.
- All lease blocks should have the written permission of the landowner for their land to be included in this NMP. A lease permission form is attached to the initial property report (Advice and Support Form), provided to the LUA by BOPRC.

1.4 Property Considerations Table

This section is to give property considerations and limitations, primarily to help landowners plan for what they can and cannot do on their land. **Table prepared by BOPRC**. Includes:

- Environmental Programme (RMP/LIA/BMP/EP).
- Archaeological sites.
- Rotorua Airport – Obstacle Limitation.
- SNA/ONLF.
- Existing consents.
- Existing BOPRC covenants or encumbrances (gorse/incentives/other).
- Wetland Extent identified GeoView layers.
- Other considerations to land use (Priority Biodiversity Sites, QEII, Nga Whenua Rahui Kawenata, DOC land, Te Ture Whenua Maori Act Land, Settlement Land as defined in RNRP).

1.5 General farm overview

- This section is to give a broad and unregulated description of the farm system and is primarily to give a background and general overview of the farm. Actions stated here will not be monitored and any information entered here is optional. You may wish to present information in a table to improve readability. Photos may also be added to this section if desired.
- Description may include:
    - Stock numbers, operating system, production information.
    - The topography, soils and climate of the farm.
    - Challenges/advantages of the land/farm system.
    - Catchment context.
    - Previous environmental measures undertaken.
    - Relevant farm/family history and farming philosophy.

1.6 Full property map

- BOPRC will generate this map for inclusion.
- The purpose of this map is to show the boundaries of the farm business enterprise.
- If the farm is partly out of the catchment/in Rule 11, the catchment line/boundary will be shown.

Section 2 Nitrogen targets

The following tables are based on requirements 3 and 4 in Schedule LR Six: Nutrient Management Plan requirements of the Regional Natural Resources Plan, which are mandatory minimum requirements of a Nutrient Management Plan.

2.1 Nitrogen loss targets

- This table needs to be completed using values from the same version of OVERSEER®. Please enter the OVERSEER® version you are using in the header.
- A year is the period from 1 July to 30 June:
  - 2017 Start Point covers 2017-2022.
  - 2022 Managed Reduction Target (MRT) covers 2022-2027.
  - 2027 Managed Reduction Target covers 2027-2032.
  - 2032 Nitrogen Discharge Allocation (NDA) covers 2032 onwards.
- Nitrogen targets are based on Lake Rotorua Nutrient Management Schedule LR One.
- Total kg N values for this NMP may not be greater than the total kg N target values for the area of the property within the Lake Rotorua groundwater boundary.
- Lake Rotorua Nutrient Management Area and Total Farm Business Enterprise Area should only differ if part of the farm is outside the Lake Rotorua groundwater boundary.
- Where a farm has a portion of land out of the Lake Rotorua groundwater catchment, the area affected by Lake Rotorua Nutrient Management rules relates to the N losses from the portion of the farm within the Lake Rotorua groundwater boundary. BOPRC will calculate this if required.
- OVERSEER® version updates do not change this NMP or affect the values in this table after the NMP is signed. See Section 4 for NMP updates.

2.2 Losses by OVERSEER® analyses

- This table is provided to show a breakdown of losses by management block if there are separate OVERSEER® analyses for separate management units of the farm e.g. a milking platform and runoff.
- Delete table **(but not heading)** if not required.

Note: It is only necessary to have multiple OVERSEER® analyses if the farm system cannot be modelled in a single analysis.

2.3 RL R1 (Rule 11) nutrient loss targets in OVERSEER® version x.x.x

- Was the property benchmarked under Rule 11 of the Regional Water and Land Plan? Y ☐/N ☐ - BOPRC staff can help answer this question if unsure.
- This table should only be filled out if part of the farm is outside the Lake Rotorua groundwater boundary but within the Rule 11 boundary (e.g. in a lake catchment affected by Rule 11: Lakes Ōkāreka, Rotorua or Rotoiti). *Please select Yes or No.*
- Delete table **(but not heading)** if not required.

- These targets should be in the same OVERSEER® version as used in Table 2.1. Please state OVERSEER® version in header.
- BOPRC will provide the nutrient loss targets if the property is affected by Rule 11 as well as Lake Rotorua groundwater catchment.
- The area of the farm that is within the Rule 11 area must comply with their Rule 11 allocation. No further reductions are required.

2.4 OVERSEER® block map showing nitrogen losses

- This is a block map of the farming/property enterprise as per the block setup in OVERSEER®.
- BOPRC will digitise the block map provided by the LUA and provide attributes for input into the OVERSEER® analysis. Following BOPRC acceptance of the OVERSEER® analysis, BOPRC will generate a block map based on a colour gradient of the block N discharge. Blocks with higher N losses are darker coloured.
- The intent of this map is to give the NMP user a visual representation of the farm N leaching.

Advice notes for creating block maps for the LUA:

- *Block maps and OVERSEER® analyses must have identical block names.*
- *Large areas of trees within paddocks or rhyolite tors should be blocked separately, named appropriately (e.g. grazed trees or similar) and given a lower relative productivity value.*
- *Any tree blocks that have stock access should be a grazed tree block and entered as pastoral blocks in OVERSEER® with lower productivity. Please ensure any tree and/or native blocks in OVERSEER® are stock excluded.*
- *Races, laneways and farm sheds should be joined to the nearest adjacent block rather than being blocked out separately, unless it encompasses a significant area and races are fenced.*
- *There is no need to create blocks in accordance with catchment lines, unless there is a management difference between the land in and out of catchment. BOPRC will calculate in/out of catchment losses.*
- *Areas of the farm with different soils that lead to a difference in drainage profile of the soil should be blocked separately, following the closest fence line.*
- *Pastoral blocks that are named 'flat', 'rolling', 'easy' or 'steep' should reflect the OVERSEER® slope category of flat 0-7.99˚, rolling 8-15.99˚, easy 16-25.99˚ or steep >26˚ where possible.*
- *Wetlands that are fenced should be added as a riparian block (as per OVERSEER® BPDIS and BOPRC protocols) but can be named 'wetland'. Wetlands that are not fenced should be mapped as a pastoral block with a lower relative productivity and can be called 'grazed wetland'.*

Section 3 Nutrient management

The following management objectives are based on Clause 5 in Schedule LR Six: Nutrient Management Plan of the Natural Resources Management Plan.

Schedule of nitrogen mitigation actions:

- The following series of tables set out a pathway, including a schedule of mitigation actions, described land uses and OVERSEER® (or other Council approved model) input parameters that will achieve compliance with the nitrogen targets in Section 2 of the NMP.
- The farm system and actions for the 2022 MRT need to be in sufficient detail to show how the relevant N targets will be met.
- A description of proposed actions is needed for the 2027 and 2032 N targets. You will need to submit OVERSEER® analyses corresponding to 2027 and 2032 targets – see Section 4 of NMP.
- Reporting year is a one year period from 1st of July to 30th of June.

3.1 OVERSEER® analysis description and nitrogen allocation actions/limits for 2022-2027

Provide a description using maximum wording 'No more than XX' based on the farm system as modelled in OVERSEER®, including:

- Maximum number of stock and class of stock that will be on property at any time.

Examples of wording include - "No more than [insert number] heifers between x and y date each year". "No more than [insert number] bulls between x and y date each year".

Or, this information may be inserted as a table stating "no more than figures shown in table below" within the text box if preferred. (I.e. screenshot of OVERSEER® stock calendar).

- Maximum fertiliser amounts and descriptions that will be applied during any calendar year.
- Production.
- Maximum cropping areas during any reporting year (if any).
- Maximum feed imports during any reporting year.
- Infrastructure at any time (e.g. stand-off pad, herd home, feed pad) and timing of use (if applicable).
- Other.

If you use an alternative model to OVERSEER® see Lake Rotorua Nutrient Management Policy LR P15 of the Regional Natural Resources Plan.

3.2 Actions to achieve nitrogen Managed Reduction Targets by July 1st for the following years:

Show what actions are planned, that are in addition to or different from the 2017 Start Point and 2022 farm system and actions, to show a pathway to meet the 2027 nitrogen MRT and 2032 NDA. Please follow the information requirements detailed in Section 3.1.

Please be absolute, rather than relative, in stating mitigations e.g.:

Continue same farm system as defined in Section 3.1 with:

- *'Reduce from 250 to no more than 230 cows milked at peak, each year during this period (2027 to 2032)'* as opposed to *'reduce peak milking cows by 20, each year during this period (2027 to 2032)'.*
- *'Reduce from 230 weaners to buying in no more than 200 weaner calves, each year during this period (2027 to 2032)'* as opposed to *'buy 30 less weaners, each year during this period (2027 to 2032)'.*
- *'Reduce from applying 45 kg N/ha to applying no more than 30 kg N/ha on grazing block in September, each year during this period (2027 to 2032)'* as opposed to *'reduce N fert on grazing block by 15 kg N/ha'.*

This ensures that there is no confusion about the farm parameters of the chosen system for the MRT period.

3.3 Records to demonstrate compliance with nitrogen targets and mitigation actions/limits

Auditable source documents must be kept as proof of compliance with targets and mitigation actions. If requested these must be provided to the BOPRC. Farm records are expected to be kept for at least 7 years.

The data and records will normally address:

- Production - specify: e.g. milk production, carcass weight, velvet, etc.
- Livestock numbers to be accounted through NAIT and/or equivalent dockets and receipts.
- Calving, lambing, fawning and weaning dates recorded as a farm dairy entry or similar.
- Fertiliser type, amount and timing (including by block if differential rates used) and spreading contractor invoices (if relevant). Fertiliser company and contractor records are expected.
- Records or equipment maintenance and calibration are expected if fertiliser is spread by the farmer.
- Supplementary feed origin, amount, type, storage and destination (stock classes fed and location on farm by paddock or OVERSEER® block location); as recorded in a farm diary or dockets/invoices where appropriate.
- Crops grown: crop types and yield, planting dates, paddock/OVERSEER® block location (map if relevant), months of harvest or grazing, stock grazed regressing dates, fertiliser applications crop rotation history; as recorded in a farm diary or dockets/invoices where appropriate.
- Infrastructure: feed infrastructure, in–shed feeding (months of usage), stand-off, feed or wintering (pads or barns), timing and nature of usage; as recorded in a farm diary or similar.

- Plantain (only required if Plantain is going to be used as a mitigation through OVERSEER®): Seed type, amount, timing, and rates per block*.
- Plantain (only required if Plantain is going to be used as a mitigation through OVERSEER®): Percentage per block calculated using DairyNZ visual assessment guidelines for Plantain^.
- Soil test results*: Dairy required every 2 years; Drystock every 3 years.
- Other: please specify.

Note that nutrient budgeting analyses are addressed later in Section 4.

3.4 Good Management Practices for nitrogen and phosphorus management

This section provides a summary of industry recommended Good Management Practices (GMP). Bay of Plenty Regional Council requires all farms to be operating at or above the standard of **Required** Good Management Practices stated. **Recommended** Good Management Practices are included as a target for farmers to achieve for best environmental performance. For more information refer to "Industry Agreed Good Management Practices relating to water quality 2015" and check activity in the Regional Natural Resources Plan.

The Land Use Advisor should not remove any practices in this table but additional practices are encouraged to be added if relevant to the property and farm system.

3.5 Phosphorus management of Soil Olsen P levels

Higher than agronomic optimum soil Olsen P levels have a direct correlation to higher phosphorus loss to water. This section is to record the latest soil test and evaluate Olsen P levels in the soil. Soil tests should be done by block to show any variation in Olsen P levels over the farm. Any blocks where the Olsen P is higher than the agronomic optimum action will state "reduce or withhold P fertiliser applications until soil Olsen P is back with optimum range, retest by XX date".

Reference for optimums: https://www.fertiliser.org.nz/Site/resources/booklets

Include date of last test

- Dairy – soil testing undertaken at least biennially.
- Drystock – soil testing undertaken at least triennially.

3.6 Property specific actions for nitrogen and phosphorus management – identifying Critical Source Areas

The purpose of this section is to describe and identify mitigations for Critical Source Areas (CSAs) on farm.

A CSA[1] is a point or area of the farm that contributes a high disproportion of losses (nitrogen, phosphorous, sediment and e-coli) from the farm. These are generally areas of high stock concentration, exposed soil and close or connected to waterways or ephemeral flow paths. Examples include, but are not limited to: tracks, stock camps, gateways and yards (where dung may accumulate), cultivated paddocks, feed stations and active erosion sites. CSAs can be nitrogen or phosphorus based.

[1] Please note that Intensive Winter Grazing rules have a different definition for CSA – see definition section.

Consider:

- The connectivity of sites to waterways and ephemeral flow paths, as phosphorus losses generally occur through surface overland flow from these sites.
- The nutrient impact of storing and feeding out supplementary feed.
- Locations where stock congregate on farm.

Gorse is a CSA for nitrogen as mature gorse can leach 38 kg N/ha/y. Therefore we require that all landowners keep their properties free of gorse, and record any gorse as a CSA.

Detainment bunds, when used in their correct capacity, are an appropriate mitigation for reducing the effects of nutrient in overland flow, in addition to implementing GMPs. If a landowner is interested in a detainment bund, please provide details to BOPRC and we will determine the feasibility of detainment bunds for the farm. Existing detainment bunds are to be marked on the farm map in Section 1.6. Proposed detainment bunds are not considered a CSA.

Risks relating to fertiliser applications (N or P) should be addressed in Section 3.7 – Fertiliser management. Risks relating to effluent storage and applications should be addressed in Section 3.8 – Effluent management.

Critical Source Areas are to be recorded on the CSA spreadsheet provided by BOPRC. Also ask about the CSA Collector App through the Fieldmaps phone app.

Before completing the CSA spreadsheet:

- Use a detailed Ephemeral Flow path Map (supplied by BOPRC) to check where storm runoff may intersect with sites or activities likely to be CSAs.
- Visually inspect the entire property to identify CSAs.
- Review management of crops, pasture and stock to minimise soil disturbance, especially in wet conditions.

The Land Use Advisor should then:

- Number and record the locations of the CSAs on a map using either a paper copy, Google Earth, or the CSA collector app. CSAs are generally attributed to a specific point, line or area on farm. Actions and timeframes will still need to be specified.
- Identify and record the realistic implementation of GMPs to avoid or reduce the risks from CSAs and other areas which may contribute to losses. A timeframe (due date) must also be provided.
- Fill out the spreadsheet, ensuring:
    - CSAs are listed in order of closest due date, followed by highest priority.
    - The CSA type is selected from the drop-down list. If the CSA type does not match the CSA you have identified, use ‘other’ and state the type in the end column. The CSA description field can also be used to describe the CSA more accurately. This is a requirement for data entry.
    - If CSAs have the same type, action and due date, these can be grouped together.
    - Select a date that is within an acceptable timeframe for the farmer. This does not need to align to the MRTs.
    - If ongoing action use 01-07-2017 and tick ‘y’ in the ongoing box.

Further instructions for mapping and documenting CSAs can be found on the first tab of the CSA template spreadsheet, supplied by BOPRC to the Land Use Advisor.

The CSA spreadsheet is to be inserted as a table (not an image) into the NMP in Section 3.6 alongside the CSA map. Table is typically inserted as landscape rather than portrait.

Optional as recommended in Section 3.4 GMP Table: Landowner can request the inclusion of Infrastructure (feed pads, standoff pads, offal pits, farm dumps, silage pits, and effluent pond location) along with High Risk grazing areas into the CSA map.

3.7 Fertiliser management

This section is to identify the risks associated with storing and spreading fertiliser.

- Please select if fertiliser will be spread by the farmer or farm employee, or by a contractor.
- All fertiliser spreading contractors should be certified under the Spreadmark Code of Practice 2015 (or as updated).
- This section should identify and address risks from fertiliser storage and application, especially direct run-off losses during and shortly after application.
- Describe risks specific to the property associated with spreading and storing fertiliser including:
    - Any buffers around sensitive areas e.g. waterways and ephemeral flow paths.
    - Proximity and connectivity of storage to ephemeral flow paths.
    - Weather considerations.
    - Considerations taken due to other nutrient sources on areas of the farm (e.g. effluent).
- If spread by the farmer or farm employee, please describe the measures taken to ensure fertiliser spreading equipment is maintained and self-calibrated to Spreadmark Code of Practice standards. State how often equipment is cleaned and calibrated.
- For more guidance see the Code of Practice for Nutrient Management 2013 (or as updated).
- Do not repeat fertiliser application rate/timing information described elsewhere in this NMP.

3.8 Water management

- Please select **Y** or **N** depending on the property
- Does the property have a water take? Y ☐/N ☐
- Is water used for milk cooling and dairy shed wash down? Y ☐/N ☐
- Does the property have a water meter? Y ☐/N ☐
- Does the property use water for irrigation? Y ☐/N ☐ Areas where irrigation is used:

Describe the areas of the property that are irrigated, the application rates and timing.

- Add water take consent number (if relevant) - Should also be in the Property Considerations table.
- Describe how is water use managed in a way that minimises water losses?
- Steps that will be taken to ensure water irrigation systems at the property are managed in a way that minimises nitrogen losses?

3.9 Effluent management

- Please select **Y** or **N** depending on if the property has an effluent system or not. If **N**, then no further information is required.

For dairy farms, effluent is primarily addressed via a Farm Dairy Effluent Discharge Consent. BOPRC will enter the resource consent number.

- Please describe effluent system and any further methods the farmer intends to undertake to further mitigate the effects of farm dairy effluent. This may include:
    - Lower discharge rates.
    - Provisions around soil moisture levels and effluent application.
    - Any additional adoptions of industry best management practice for effluent since the consent was issued.
    - Assumptions on effluent N and P content (kg/ha) and any associated adjustments to the N and P fertiliser policy for areas receiving effluent.

Please note that the BOPRC website live monitoring portal contains data around soil moisture levels around the region.

BOPRC Environmental Data

3.10 Stock Holding Area Management

- The National Environmental Standards – Freshwater 2020 Regulation 12-14 covers new requirements for Stockholding Areas. Definition includes standoff pads, loafing pads, wintering pads and feed pads. It doesn't include stockyards, milking sheds, wintering barns, calf sheds or sacrifice paddocks.
- Does the property have Stockholding Area, which matches the definition above? Y ☐/N ☐ If N delete table: **IF YES CONSULT WITH BOPRC LMO/CONSENTS TEAMS AS THIS SECTION COULD REPLACE THE NEED FOR A STOCKHOLDING AREA CONSENT.**
- Is the stockholding area base sealed or proposed to be sealed? Y ☐/N ☐
- Distance from the stockholding area to a waterbody, drain or bore.
- Is effluent collected, stored and disposed of in accordance with a Regional Plan rule or farm dairy effluent discharge consent? Y ☐/N ☐
- How are the Stockholding Areas proposed to be managed in a way that minimises nutrient losses from the property?
- Hours used per day and months of use?

3.11 Intensive Winter Grazing (IWG)

Regulations 26 - 27 of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 subpart 3 (NES) set out requirements for Intensive winter grazing.

Permitted Activity Criteria	Criteria met	
	Y	N
The area of the farm that is used for IWG must be **no greater than 50 ha or 10% of the area** of the farm, whichever is greater, at all times.	☐	☐
The slope of any land under an annual forage crop used for IWG must be 10 degrees or less, and is determined by measuring the slope over any 20 m distance of the land. (Refer to the slope map provided by BOPRC to assist in evaluation).	☐	☐
Livestock must be kept at least 5 m away from the bed of any river, lake, wetland, or drain (regardless of whether there is any water in it at the time).	☐	☐
Critical source areas (CSA)* must be protected. Any CSA that is within, or adjacent to, any area of land used for IWG must comply with the following restrictions between 1 May and 30 September:		
• Not be grazed.	☐	☐
• Have vegetation maintained as ground cover over all of the critical source areas.	☐	☐
• Not be cultivated in annual forage crops.	☐	☐
• Not have annual forage crops harvested.	☐	☐

In addition the requirements in 26A and B are:

26A Pugging standard

(1) A person using land on a farm for intensive winter grazing in accordance with regulation 26 must take all reasonably practicable steps to minimise adverse effects on freshwater of any pugging that occurs on that land.

(2) A person using land under this regulation must provide any information reasonably required by a regional council enforcement officer for the purpose of monitoring compliance with this regulation.

26B Ground cover standard

(1) A person using land on a farm for intensive winter grazing in accordance with regulation 26 must ensure that vegetation is established as ground cover over the whole area of that land as soon as practicable after livestock have finished grazing the land.

(2) A person using land under this regulation must provide any information reasonably required by a regional council enforcement officer for the purpose of monitoring compliance with this regulation.

And conditions 29 (3) must also be met. The conditions are that—

(a) land on the farm must have been used for intensive winter grazing in the reference period; and

(b) (b) at all times, the area of the farm that is used for intensive winter grazing must be no greater than the maximum area of the farm that was used for intensive winter grazing in the reference period.

The amended NES-F IWG regulations come into force on 1 November 2022, to enable farmers time to adjust their farming practices, cultivation, paddock-selection, and planting choices, in preparation for the 2023 winter-grazing season.

- This means intensive winter grazing can continue without a consent, if carried out in accordance with the permitted activity standards in the regulations. Whether your IWG activity is permitted or not, this activity and how it will be managed on your property (if relevant) will be included in your NMP.
- The 2021/2022 Intensive Winter Grazing Module, produced by the Ministry for the Environment (MfE) in collaboration with MPI, can assist farmers with planning and managing winter grazing in 2022.[1]
- BOPRC have extracted relevant sections of the IWG grazing module not already covered in the NMP document. The sections should be completed as an appendix to the NMP if permitted activity conditions are not met.

To assist with assessing the level of risk associated with IWG Horizons Regional Council have made an online assessment tool available. You may like to use this to help assess the level of risk the intensive winter grazing parameters pose to the catchment you farm in. It is available here: IWG (horizons.govt.nz) Please note this is a risk assessment to help with mitigation identification rather than assessing permitted activity status.

Please note that BOPRC can provide you with a slope map of your farm. Contact your land management officer if you would like one.

Section 4 Nutrient Management Plan reviews

This section outlines the requirements for reviewing and updating the NMP. It is information only and should not be modified.

Section 5 Greenhouse Gas Emissions

Section 5 Greenhouse Gas Emissions **is not a requirement** of the Regional Natural Resources Plan or your Land Use Resource Consent.

In October 2019, central government agreed to a proposal '*He Waka Eke Noa'* from the primary sector to work together to develop a system for measuring, managing and reducing agricultural greenhouse gas (GHG) emissions, rather than simply putting farm products in the Emissions Trading Scheme. More info can be found at: www.hewakaekenoa.nz.

Section 5 of this NMP is based on '*He Waka Eke Noa'* requirement for all farms to have greenhouse gas emissions reported in their Farm Environment Plans by 2025.

Please use the Yes/No boxes to ensure like for like is being compared in future scenarios and GHG reporting.

Options to help reduce your GHG emissions can be found on these websites:

http://www.tools.business.govt.nz/climate/

http://www.dairynz.co.nz/environment/climate-change/ways-to-reduce-emissions/

http://www.beeflambnz.com/knowledge-hub/module/climate-change

More information on your property specific GHG emission profile can be found at www.overseer.org.nz under the reports section in the analysis.

Section 6 Appendices

6.1 Appendix 1: Intensive Winter Grazing Plan

This portion of the NMP is only required if there is Intensive Winter Grazing on the property and the IWG activity doesn't meet permitted activity rules. See section 3.11 for permitted activity criteria.

Terminology and definitions

Benchmarked effective area – The part of the property/farming enterprise that was used for grazing, cultivation, cropping, horticulture, effluent disposal and includes areas of grazed trees during the 2001-2004 benchmark period.

BPDIS (Best Practice Data Input Standards) – Published by OVERSEER® for each new version of the OVERSEER® model. Developed by a group of seven technical expert users using consensus.

CSA (Critical Source Areas) – Areas of enriched contaminant sources and hydrological activity that occur in small parts of a catchment or farm, but contribute a disproportionately large amount of contaminants to the environment.

CSA (IWG) - critical source area under IWG rules means a landscape feature such as a gully, swale, or depression that (a) accumulates runoff from adjacent land; and (b) delivers, or has the potential to deliver, one or more contaminants to one or more rivers, lakes, wetlands, or drains, or their beds (regardless of whether there is any water in them at the time)

Detainment Bund^{PS120} (DB) - A low earth bund (usually <2.5m high) with a decanting riser outlet constructed across an ephemeral flow path on farm pasture to attenuate phosphorus and suspended sediment (PS) loads transported in overland flow during runoff events for water quality objectives. DBs have a storage to catchment ratio of not less than 120m^2 per hectare of contributing catchment. DB ponding areas are normally dry and temporarily hold water (hours to a few days) per runoff event so that pasture productivity in the ponding area is not unduly compromised. For detainment bunds not meeting the specific description above see 'retention bunds'.

EFP (Ephemeral Flow Paths) – a flow path or stream that flows only during and following a period of rainfall causing runoff.

Farm – A single operating unit regardless of its ownership structure, size, arrangement and number of parcels and tenure.

Farmer – The person responsible for the day to day farm operations.

Farm Business Enterprise – A single operating unit regardless of its ownership structure, size, arrangement and number of parcels and legal tenure.

Farm business operator – The overarching person in charge of the farm business.

Farming activity - Dairy, dairy support and drystock activities, cropping and horticulture, but not including plantation forestry or bush/scrub.

GMP (Good Management Practice) – GMP refers to the evolving suite of tools or practical measures that could be put in place at a land user, sector and industry level to assist in achieving community agreed outcomes (in this case for water quality).

IWG – Intensive Winter Grazing – the grazing of livestock on an annual forage crop at any time in the period that begins 1 May and ends 30 September of the same year.

Lake Rotorua groundwater catchment – All land within the groundwater catchment boundary identified in Map LR1 of the Plan Change 10 document. Also known as the PC10 Boundary.

LMO (Land Management Officer) – Bay of Plenty Regional Council staff member whose role is to promote sustainable land management. The main contact for nutrient management plans.

LUA (Land Use Advisor) – Independent land use sector experts contracted by BOPRC to provide land use advice and create nutrient management plans.

MRT (Managed Reduction Target) – The planned progressive reduction of nitrogen losses from a property/farming enterprise over time to reach a Nutrient Discharge Allocation.

NDA (Nitrogen Discharge Allocation) – The maximum annual amount of nitrogen loss that is allowed to occur from a property/farming enterprise post 1 July 2032. A property/farming enterprise's Nitrogen Discharge Allocation equals the sum of the allowable nitrogen losses, for all of the blocks within the property/farming enterprise (drystock, dairy, bush/scrub, plantation forestry and house blocks).

NMO (Nutrient Management Officer) – Bay of Plenty Regional Council staff member responsible for the nutrient accounting and data management required for the Regional Natural Resources Plan.

Olsen P – A method of soil testing used to find the amount pf plant available phosphate in the soil.

PC10 (Plan Change 10) – The plan change is one of the methods being used to give effect to Policies WL 3B, WL 5B and WL 6B of the Regional Policy Statement and provides for a staged implementation of these requirements i.e. the managed reduction of any nutrient losses that are in excess of the limits established under Policy.

PC10 Boundary – Formally known as the Lake Rotorua groundwater catchment within the Bay of Plenty region.

Permanently retired – The permanent removal of plantation forestry and/or agricultural production to enable a natural reversion back to native forest cover (or a land use with the same nitrogen loss rate as bush/scrub) that is legally secured.

RNRP (Regional Natural Resources Plan) – A Bay of Plenty Regional Council plan with a purpose to promote the sustainable and integrated management of land and water resources within the Bay of Plenty.

Rule 11 – A rule setting nutrient limits in the catchments of lakes Rotorua, Rotoiti, Rotoehu, Okaro and Ōkāreka based on property nutrient levels in 2001-2004. In the
Lake Rotorua catchment Rule 11 has been superseded by Lake Rotorua Nutrient Management - Regional Natural Resources Plan (Plan Change 10).

Rule 11 Catchment – Includes the surface water catchments of Rotoiti, Ōkāreka, Rotoehu and Okaro. Prior to proposed PC10 it also included the Lake Rotorua surface water catchment.

Retention bund – Any other bund structure used in ephemeral waterways that does not fit under the Detainment Bund^{PS120} (DB) definition but is designed to reduce sediment during runoff events.

Significant Farm System Change – A change in farm system that alters the inputs, methods or areas being used in the management of the property/farming enterprise, where the scale of change means that the Nutrient Management Plan is no longer a realistic representation of the farm system or the predicted discharge exceeds that in the Nutrient Management Plan

Start Points – The nitrogen loss benchmark or derived benchmark for a property/farming enterprise as a sum of all block nitrogen loss benchmarks/derived benchmarks developed in accordance with Schedule LR One.

Nutrient Management Plan Checklist

To facilitate the finalisation of the NMP can the LUA please ensure the following have been completed before submission of the NMP document.

Check when item complete:

Task	☒
The latest NMP template has been used when populating the NMP.	☐
User guide has been followed and all sections of the NMP filled out accordingly.	☐
Block maps have been prepared in accordance with BOPRC standards.	☐
BOPRC protocols have been followed when preparing OVERSEER® analyses. Where there are no BOPRC guidelines the OVERSEER® best practice input standards are used.	☐
Supporting OVERSEER®FM analysis published to the Council (or OVERSEER® .xml file supplied prior to OVERSEER®FM use).	☐
Latest CSA spreadsheet and its dropdown list have been used **OR** approved CSA collector application used as the alternative to CSA spreadsheet.	☐
NMP spelling and grammar check done.	☐