

**MARKED UP – SCHEDULE 1A – REQUIREMENTS FOR FARM ENVIRONMENT PLANS
(FONTERRA CLOSING SUBMISSION – 25 SEPTEMBER 2019)**

The Farm Environment Plan (FEP) will be prepared and provided in accordance with Parts A-C below. Progress with implementation will be reviewed and reported ~~monitored~~ in accordance with Part D (~~where the FEP is required as a condition of resource consent~~). Any change to an FEP must be made in accordance with Part E.

Note: *A person seeking to operate in accordance with permitted activity Rules 3.11.5.2 or 3.11.5.3 must have an FEP consistent with all parts of this Schedule, and must undertake the actions described in the FEP. A farming activity that has an FEP that does not comply with this schedule, or which is undertaken in a manner that does not comply with the FEP will not meet the conditions of the permitted activity rule and an application for resource consent will be required.*

PART A – PROVISION OF FEP

An FEP that has been certified as meeting the requirements of B below by a Certified Farm Environment Planner (CFEP), must be submitted to Waikato Regional Council (the council) using either:

1. A council digital FEP tool that includes the matters set out in Part B below to the extent relevant; OR
2. An industry digital FEP tool, capable of recording information consistent with the council data exchange specifications that includes the matters set out in Part B below to the extent relevant.

The Waikato Regional Council data exchange specifications will set out the standards and detail of the data exchange process to be used by external industry parties in the provision of FEPs.

PART B – CONTENT OF AN FEP

The FEP shall contain:

1. The property or enterprise details:
 - a) Full name, address and contact details (including email addresses and telephone numbers) of the person responsible for the land use activities;
 - b) Legal description of the land and any relevant farm identifiers such as dairy supply number.

2. A map(s) at a scale that clearly shows:
 - a) The boundaries of the property or land areas being farmed;
 - b) The boundaries of the main land management units or land uses on the property or within the farm enterprise;
 - c) The location of any Schedule C waterbodies;
 - d) The location of riparian vegetation and fences adjacent to water bodies;
 - e) The location on any waterways where stock have access or there are stock crossings;
 - f) The location of any critical source areas and hotspots for contaminant loss to groundwater or surface water; and
 - g) The location(s) of described actions and practices to be undertaken.
3. Description of whole farm management practices and general requirements
 - a) Identification and description of the key characteristics of the farm system including all inputs, outputs and management practices
4. Based on 3 above, and on an identification and assessment of all sources of sediment, nitrogen, phosphorus and microbial pathogens, a description of:
 - a) the farming practices (including the management actions for critical source areas) that are consistent with the standards and requirements as set out in Part C and a commitment to continue those practices and actions;
 - b) the farming practices (including the management actions for critical source areas) that are not consistent with the standards and requirements as set out in Part C and a commitment to adopt the required practices and actions as soon as practicable and in no instance shall that exceed 4 years from the date the FEP is required by this plan or 2026, whichever is earlier.
 - c) any risk of contaminant loss on the farm that would not be managed by the standards and requirements as set out in Part C and any additional practices and actions that may be required to address that risk.

PART C – STANDARDS AND REQUIREMENTS

1. Nutrient management

- a) Monitor soil phosphorus (P) levels and maintain them at agronomic optimum as set out in the [Code of Practice for Nutrient Management](#)

<http://www.fertiliser.org.nz/Site/code-of-practice/> and the relevant sector specific on-farm practice booklet].

Note: For the purpose of this Schedule, the Code of Practice for Nutrient Management means the Code of Practice for Nutrient Management published by the Fertiliser Association and dated 2013. It can be found at <http://www.fertiliser.org.nz/Site/code-of-practice/>. The sector specific on-farm booklets are: 149301 NZ Fertiliser use Sheep & Beef Farm 2018; Fert use on Dairy Farms Master Version- Feb 2017; and NZ Fert Cropping Master Book 2012. They can be found at <http://www.fertiliser.org.nz/Site/resources/booklets.aspx>

- b) Where soil P levels are above optimum there will be a managed reduction plan to reach the COP optimum levels as set out in the relevant Code of Practice for Nutrient Management sector specific on-farm practice booklet (see reference above).
- c) Nitrogen (N) fertiliser is applied to pasture in response to a future feed deficit identified using a formal feed budgeting tool that documents the method of determining fertiliser need.

Note: a 'future feed deficit' occurs when the projected pasture growth is insufficient to feed the livestock carried on the property over the projection period.

- d) Nitrogen fertiliser application rates to pasture are no greater than 30kg of N per hectare per dressing.
- e) Nitrogen fertiliser is applied to crops in accordance with the Code of Practice for Nutrient Management. Where a relevant industry crop model is used to support the decision making process the practice will be consistent with the guidance of the Code of Practice for Nutrient Management and the decision process will be documented with records retained for 3 years.
- f) Nitrogen fertiliser is not applied when soil temperature (as provided by either soil temperature monitoring or by reference to a catchment specific daily soil temperature site) is below 10 degrees at 9am at a depth of 10cm.
- g) ~~Stored fertiliser is stored on a sealed surface and~~ covered or roofed with impermeable material. The storage area will be walled or bunded so no contaminated runoff or leaching from the storage site occurs.
- h) Equipment for spreading fertiliser is calibrated at least annually in conformance with manufacturers' recommendations or in the absence of any manufacturers' recommendation, in accordance with any industry best practice and a record kept of that calibration process.
- i) Contractors used for fertiliser spreading are Spreadmark certified.

Commented [BM1]: **Drafting note:** see earlier drafting note on clause 1(a).

Commented [MOU2R1]:

Commented [BM3]: **Drafting note:** Fonterra does not consider that sub-catchment soil temperature data will realistically be available for all farms and so suggests this remains catchment-specific.

2. Farming in accordance with the nitrogen management requirements

- a) Where the N leaching rate is greater than the 75th%ile for the relevant FMU, action must be taken to decrease nitrogen leaching rate below the 75th%ile. This action must ensure the property has reduced nitrogen leaching to at least the required level, and is to be implemented within 3 years of the relevant FEP provision date. This must be demonstrated by the inclusion in the FEP of an Overseer modelled scenario of projected future nitrogen leaching rate under revised management practices and a commitment to adopt those revised practices.
- b) Where the applicable NRP is less than or equal to the relevant 75th%ile N leaching rate, efficiency opportunities will be identified and described with associated actions
- c) ~~A Nitrogen Risk Scorecard (NRS) assessment of risk (sector specific) is to be~~ A whole farm risk assessment, using a tool or model approved by the Chief Executive of the Waikato Regional Council, shall be carried out as part of the FEP development process. ~~An annual NRS report is generated and~~ Key farm data will be entered into the same approved tool or model annually so as to demonstrate that whole farm / N loss risk ratings have not increased over the previous year. This report and supporting data will be provided to the Waikato Regional Council on request.
- d) Where purchased N surplus is greater than 150kg N/ha/yr practice change is made to decrease purchased N surplus such that the 150kg N/ha/yr threshold is not exceeded.

Note: 'purchased N surplus' is calculated as the difference between the N brought onto a farm in fertiliser and imported animal feed, less the amount of N exported from the farm in product. It is to ~~can~~ be calculated using the on-line calculator located on the Waikato Regional Council website or, alternatively, it is an automated output of the Nitrogen Risk Scorecard.

Commented [BM4]: Drafting note: Fonterra data indicates that 150 kg purchased N surplus is at about the 80th percentile, ie 20% of Fonterra farms in the PC 1 catchment will have a purchased N surplus of more than 150kg. Fonterra expects that this would be generally representative of dairy farms in the catchment.

3. Waterways management

- a) Stock are excluded from waterways bodies in conformance with Schedule C
- b) Where Schedule C does not require exclusion, effective temporary exclusion with a minimum 1.5m setback is to be achieved when:
 - i. stock are being intensively grazed using break or block feeding with electric fencing in any paddock with a Schedule C waterway; or
 - ii. the paddock stocking rate is greater than ~~18~~ 30 SU/ha in any paddock with a Schedule C waterway
- c) Critical source areas for nitrogen, phosphorus, sediment and pathogens that are close to, or closely linked with a Schedule C waterway water body are prioritised for action ahead of those critical source areas distant from, or less closely connected to water bodies. All critical source areas should be addressed within the timeframes

Commented [BM5]: Drafting note: Mr Allen explained his rationale for 30 SU/ha during the hearing, however he has discussed this with others and understands that 18 is used in other regional plans. Fonterra would be willing to reduce to 18 SU/ha if the Panel considers that to be a more appropriate standard.

identified clause 4(b) above, and the management actions for critical source areas are those required to be specified in clause 4(a) and (b) of Part B above.

- d) Any new or replacement stock exclusion fencing of a Schedule C waterway has an average setback from the waterway bank of 3m with no point having less than a 1.5m setback.

4. Land and soil

- a) All land of class 6e, 7 or 8 (~~as determined using the Land Use Capability (LUC) Survey Handbook~~) is identified on the farm maps. The class of land shall be determined using the Land Use Capability (LUC) Survey Handbook or, where LUC maps do not accurately characterise the soils on the property, by a suitably qualified and experienced soils expert undertaking property-scale LUC assessment (including GIS mapping).
- b) No cattle older than 2 years or greater than 400kg lwt are grazed on LUC class 6e, 7 or 8 land from June 1 to September 1.
- c) Farm scale erosion risks (type of erosion occurring / areas of the property at risk / specific location of major erosion sites) are mapped.

Note: On properties with identified by the Regional Council as having large scale erosion risks an erosion plan must be developed in conjunction with the regional council. The FEP must include an action to develop the erosion plan and, once prepared, include reference to such a plan, however, council supported erosion plans (that may be at more than a single property scale) do not have to be duplicated within the property FEP.

5. Winter grazing of forage crops

- a) No cattle older than 2 years or greater than 400kg lwt are grazed on forage crops on LUC class 6e, 7 or 8 land from June 1 to September 1.
- b) No winter grazing of forage crops occurs on LUC Class 6e, 7 or 8 land from June 1 to September 1 where the number of cattle grazed exceeds 30 in a single mob
- c) No winter grazing of fodder crops (from June 1 to September 1) occurs within 3m of any Schedule C water body. An ungrazed, vegetated buffer of at least 3m is provided between a winter grazed block and any Schedule C water body.
- d) Break feeding is managed so grazing occurs progressively downhill from the top of the slope to the bottom of the slope animals are grazed toward a water body.
- e) Ephemeral water ways bodies that are not permanently fenced that have water in them during grazing are temporarily fenced to exclude stock.

6. Races, laneways, bridges

- a) Races, laneways, culverts and bridges will be designed (including, in the case of races and laneways, through surface contouring and surface drainage channels) and maintained to prevent ponding and to direct race runoff in to vegetated areas. Direct race runoff to surface water must not occur.

Note: direct race run-off occurs where there is no filtering effect as a result of contact with vegetation

7. Cropping

- a) No cultivation of LUC class 6e, 7 or 8 land, or of any land where slope exceeds 20 degrees, other than minimum tillage or direct drilling.
- b) On land less than 10 degree slope cultivation setbacks from any Schedule C waterway water body are 3m minimum.
- c) On land greater than 10 degrees (but not including class 6e and above) cultivation setbacks are 5m minimum.

8. Effluent management

- a) Effluent storage consistent with a 90% (or greater) conformance with the Dairy Effluent Storage Calculator (DESC) is in place within 3 years of the date that the FEP is required.

[https://www.dairynz.co.nz/media/3223285/Using the Dairy Effluent Storage Calculator_DNZ40_114.pdf](https://www.dairynz.co.nz/media/3223285/Using_the_Dairy_Effluent_Storage_Calculator_DNZ40_114.pdf)

- b) Effluent ponds are managed so as to ensure there is a minimum of 75% working volume available between 1 March and 1 May each year.
- c) The effluent block is sized to ensure nitrogen applications from applied effluent are less than 150kgN /ha/ year.
- d) The effluent system is designed and operated to ensure that the conditions-standards of rule 3.5.5.1 are met at all times, unless a specific consent has been sought under rule 3.5.5.2 to 3.5.5.5 to depart from the standards in rule 3.5.5.1 in which case the conditions of that consent shall be met at all times: |

- (e) Yard areas (drystock and dairy) to be managed to ensure runoff to water does not occur. Where yards are sealed and washed down effluent must be collected into an effluent system and managed as set out in a) to d) above.

9. Irrigation

- a) Irrigation scheduling – soil moisture tapes, soil moisture probes and/or a soil moisture budget are used to inform irrigation decisions.

Commented [BM6]: Drafting note: this is Fonterra's proposed solution to any concern that rule 3.5.5.1 might not be applicable going forward. But provision also needs to be made for the situation where a consent is sought and obtained under rule 3.5.5.2-5, in which case unless these changes are made the activity could not meet the permitted activity standard in this FEP schedule.

- b) A deficit irrigation system is operated. Fixed depth and return irrigation systems must be replaced with a deficit irrigation approach within 3 years of the date that the FEP is required.
- c) An assessment of the irrigation system must be undertaken every second year to determine application depths and uniformity. Where test results fall outside of manufacturers' specifications for the system an action must be included to address this within 12 months.

10. Water Takes

- a) All farms will have in place all necessary authorisations for water takes. The conditions that apply to the particular takes on the property must be described in the FEP.

11. Record keeping requirements

- a) Accurate and auditable records of annual farm inputs, outputs and management practices are maintained.
- b) Information described in a above is provided to the Waikato Council on request.

PART D – REVIEWING AN FEP

Whether required by resource consent or as a permitted activity standard, an FEP shall be reviewed by a Certified Farm Environment Planner as follows:

- (a) Within 12 months of the granting of any resource consent requiring an FEP, and thereafter at intervals of no more than 3 years or more frequently as required by the resource consent; or
- (b) Within 12 months of the FEP being certified by the Certified Farm Environment Planner, and thereafter at intervals of not more than 3 years or more frequently as required by a Certified Industry Scheme; and
- (c) In either case of (a) and (b) above, an FEP shall also be reviewed if a farmer wishes to make a material change to their farming system such that any existing FEP is required to be amended.

Note: if a farmer is no longer able to comply with the requirements of an FEP, then if the FEP is required pursuant to a permitted activity rule then a resource consent may be required; or if the FEP is required pursuant to a resource consent, then, depending on the

nature and extent of the changes a variation to that consent may be required.

The purpose of the review is to provide an expert opinion whether the farming activities on the property are being undertaken in a manner consistent with actions specific in the FEP. This review shall be undertaken in accordance with the review process set out in the Waikato Regional Council's FEP Independent Review manual

The results of the review, including any amended FEP, shall be provided to the Waikato Regional Council within 20 working days of the review date.

Note: The requirement for monitoring and reporting would need to extend to FEPs required as a condition of permitted activities should PC1 provide for farming activities to be permitted without a Certified Industry Scheme. Such requirements are not specified here because the Fonterra proposal only contemplates farming activities being permitted activities when part of certified industry scheme.

PART E – AMENDING AN FEP

Unless otherwise required by the Waikato Regional Council in accordance with any conditions of any resource consent or any permitted activity standard (as applicable), changes can be made to the an FEP, provided:

- a) The amended FEP is certified by a Certified Farm Environment Planner as continuing to comply with the requirements of this schedule
- b) The change to the FEP does not contravene any mandatory requirement of any resource consent held in respect of the property, or any requirement of the Regional Plan that is not already authorised
- c) The change to the FEP is documented as an amended FEP and provided to the regional council as though it were a new FEP in a manner consistent with Part A of this Schedule.