

Bay of Plenty Regional Council

BOPRC protocols for the transition to and use of Overseer FM

28 May 2019

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BOPRC Protocols

Introduction

These protocols are intended to enable land use advisors, landowners, consultants and Bay of Plenty Regional Council (BOPRC) staff to take a consistent approach to Plan Change 10 OverseerFM analysis development. These protocols will be updated when further versions of OverseerFM are released; noting that as OverseerFM is still in development alterations could occur outside a version change. The protocols described are Bay of Plenty Regional Council's position and do not represent the views of Overseer Ltd in any way.

It is important to note that the BOPRC protocols described below are consistent with the Best Practice Data Input Standards – within the '*OverseerFM User Guide*' and are mainly focused on specifying which of the data input recommendation options to apply, or not to apply. The BOPRC protocols add new input recommendations where they are consistent with BOPRC practices established through the Rule 11 benchmarking process and Plan Change 10 allocation methodology.

Internet platforms used by OverseerFM

Please note the OverseerFM works in Chrome, Firefox, Safari or Edge rather than Internet Explorer. To facilitate access to OverseerFM it is recommended that you set your default browser to Chrome.¹

OverseerFM definitions:

(See the Overseer Terms of Use for Overseer Ltd formal definitions of these terms -

<https://docs.overseer.org.nz/OverseerFMTermsOfUse.pdf>)

Overseer Analysis	The name (and data format) for a farm system, and associated results, from the OverseerFM model. Previously known as an Overseer 'file' (that was accompanied by an .xml extractable data set).
Publication	The way to submit data to another organisation in OverseerFM. Analysis can be published by either farm account owner or administrator.
Farm account	There is one account per farm system. Where farms use multiple Overseer analyses to model their farm system Overseer Ltd will require multiple 'farm accounts'. Permissions are controlled by the farm account owner (usually the landowner or farm manager) or by the farm account administrator/s, which is often the organisation that set up the account.

¹ Link the provides instruction from download, and default browser setting for Chrome.

<https://support.google.com/chrome/answer/95417?co=GENIE.Platform%3DDesktop&hl=en>

FM Naming Convention

To enable any analysis to be readily recognised by the landowner, Land Use Advisor (LUA) and BOPRC staff the following 'FM Naming Convention' should be used:

Farm Name	PIN Farm Name e.g. 05 01 999 00 Sunny Pastures
Naming Structure – Predictive Analyses	PIN Farm Name NMP Period e.g. 05 01 999 00 Sunny Pastures NMP 1722 05 01 999 00 Sunny Pastures NMP 2227
Naming Structure – Year End	Defined by OverseerFM e.g. Year ending 2019
Publishee's Farm Identifier Structure	PIN e.g. 05 01 999 00
Publishee's Reference	RMYY-xxxx e.g. RM19-0001 Resource Consent Number (this can be added once a resource consent has been granted); PAYY-xxxx e.g. PA19-0001 Permitted Activity number; LR R5 - for annual land use records for 10-40ha properties

The table above relates to analyses for PC10. If you are working on an agreement analysis, developing a benchmark (LR R6) or an analysis for lakes other than Rotorua please contact BOPRC to confirm an appropriate naming structure before publication.

Publication to Bay of Plenty Regional Council

When an analysis is ready to be submitted to BOPRC, whether for a consent (supported by an NMP), or year-end (consent monitoring) the statuses are defined below:

<i>Status</i>	<i>Used by</i>	<i>Description</i>
Submitted	Land Use Advisor	When an analysis is published to BOPRC by a land use advisor (or landowner), whether year end or predictive (NMP/Consent).
Reviewing	Council	When BOPRC has started reviewing the publication. Once status is reviewing no further changes can be made to the published analysis.
Closed	Council	Analysis accepted by BOPRC.
Returned	Council	When an analysis needs updating by a LUA or landowner. BOPRC will alter the status to 'returned' to enable changes to be made and the analysis re-published to BOPRC (and the publication becomes version 2 and so on).

BOPRC variations to OverseerFM User Guide

The [OverseerFM User Guide](#) incorporates the Overseer BPDIS under the relevant sections within the user guide (the user guide is still being developed. If you note an area where the BPDIS provided guidance but the User guide does not, please let us know and BOPRC will advise a suitable approach as well as discussing the issue with Overseer Ltd). The BOPRC variations to the Overseer BPDIS and the relevant section in the FM User Guide (Updated March 2019) are tabled below:

BOPRC OverseerFM Protocols

No	Section	Subsection	Parameter	BOPRC protocol
1	5.1	User Dashboard	Creating Farm Account	Nearest town > Use Region Region > Central Plateau.
2	7.2 Blocks	Creating blocks	Distance from coast	The prevailing wind direction in Rotorua is split between the north east and the south west. Consider north east to be the prevailing wind direction and measure the 'distance from coast' from the Bay of Plenty coastline. The distance from the coast is typically between 30-60 km for properties within the Lake Rotorua catchment.
3	7.2 Blocks	Creating blocks		Not relevant if an imported .xml. Do not draw blocks per OverseerFM User Guide. Click Create Block, scroll down to bottom of map, Click Save, Enter Block details where applicable from the data attributes supplied by BOPRC. For blocks that require Climate location select "Enter climate location" then select Latitude and Longitude from the data attributes supplied by BOPRC ¹ . Click Done. Edit block to add soil per section 10 of these protocols.
4	7.2 Blocks	Creating blocks	Grazed tree blocks	Where grazed trees exist on the property, a specific pastoral block should be identified to allow for different management practices and lower pasture productivity. Note that scattered gorse with stock access should be treated similarly to a grazed tree block.

No	Section	Subsection	Parameter	BOPRC protocol
5	7.2 Blocks	Creating blocks	Gorse blocks	Blocks with dense gorse and no practical stock access should be entered as 'Trees and scrub' and bush type 'Native'.
6	7.2 Blocks	Creating blocks	House blocks	House blocks should be entered for ALL properties where there is a house. ⁴
7	7.2 Blocks	Creating blocks	House block-specific	BOPRC "House block" requirements; For number of people in house a standard occupancy of 3 people per dwelling is used. Cultivated area: a standard area of 100 m ² cultivated land per dwelling is used. This is then calculated as a percentage of the house block. For a 'house block' that comprises multiple self-contained dwellings, the number of people and area of cultivated land needs to be multiplied by the number of self-contained houses in the block.
8	7.2 Blocks	Creating blocks	Composting toilet	Composting Toilet - Use "On-site septic tank package".
9	7.2 Blocks	Creating blocks	Effective area	BOPRC does not require raceways and lanes to be blocked out separately.
10	7.2 Blocks	Adding soils to the block		Select one soil type only. The dominant soil type will be provided by BOPRC in data attributes. To enter soil data Click edit block, Click add new soil, tick new smap and enter block soil type (sibling name) from the data attributes supplied by BOPRC ² . Then check that the soil profile details and the soil properties align with the data attributes supplied for the sibling name. Change as required.
11	7.5 Drainage and Wetlands		Wetland blocks	Where a wetland is fenced BOPRC requires that it is entered as a Riparian block. Do not enter as a wetland.
12	7.5 Drainage and Wetlands		Unfenced Wetland blocks	Where a wetland is unfenced, select pasture block with an appropriately reduced level of 'relative productivity'.
13	7.6 Pasture	BPDIS-Topography	Topography	The slope for each block is calculated geospatially from the farm block map

No	Section	Subsection	Parameter	BOPRC protocol				
				<p>developed with Council and the landowner's Land Use Advisor.⁵</p> <p>Use the following slope categories:</p> <table border="1"> <tr> <td>Flat 0-7.99°</td> <td>Rolling 8 - 15.99°</td> <td>Easy Hill 16- 25.99°</td> <td>Steep Hill > 26°</td> </tr> </table>	Flat 0-7.99°	Rolling 8 - 15.99°	Easy Hill 16- 25.99°	Steep Hill > 26°
Flat 0-7.99°	Rolling 8 - 15.99°	Easy Hill 16- 25.99°	Steep Hill > 26°					
14	7.6 Pasture	BPDIS - Susceptibility to pugging		Select 'rare' for all soils defined as well-drained in S-map.				
15	7.7 Animals	Adding Livestock	Entering animal weights	If mature weight or weight gain is known enter these as well as age at start. If weights are not known use age at start only. The inclusion of age at start when weights are entered does not override the weights but helps with interpretation of the stock calendar.				
16	7.7 Animals	Animal distribution	Relative productivity	Use recommendation 2 in terms of relative productivity differences between blocks, ensure this approach is also applied to blocks of "grazed trees" and "grazed wetlands".				
17	7.9 Crops	Crop data inputs		Select 'typical yield' for crops unless there is supporting evidence for an alternative yield amount.				

¹ For Overseer analyses that form the basis of consent applications, or year-end monitoring analyses, BOPRC will provide the latitude and longitude for each block once a farm map has been supplied.

² BOPRC uses soil data generated by Landcare Research and provided via S-map dated 2014. At this stage the BOPRC S-map data is not being changed with changes to the national database. This policy will be reviewed at the next science review.

³ A house block that is 1000 m² (or 0.1 ha), the percentage of the block that is cultivated = 100m²/1000m² = 10%.

⁴ Where there is more than one house on the property, the areas of each house and garden/section can be summed, and entered into OVERSEER as a single "house" block.

⁵ BOPRC will provide the block slope data for the farm block map to 2 decimal places. Where one OVERSEER block comprises several geographically separate part-blocks, slope is calculated based on the average slope of all of the part blocks.

Processes to transition to using OverseerFM

There are three situations that LUAs and BOPRC need to accommodate in order to transition to Overseer FM.

1. Converting an already consented .xml to Overseer FM
2. Converting and finalising an existing .xml to FM for publication
3. Starting a new analysis for a consent or PA (permitted activity) application

Each of these processes is detailed below and the OverseerFM analysis flowcharts section shows the entire process.

Common to all the transition approaches is that OverseerFM requires a subscription payment to produce results that can be published to BOPRC. The subscription payment is the responsibility of the landowner. Subscriptions are not covered as part of the Advice and Support service.

Landowners engaged in Advice and Support are being asked to register for OverseerFM and set up a farm account by 31 May 2019. In addition they are being asked to let their LUA know when the farm account is set up so that the LUA can request access. If the landowner has not established an Overseer account by 15 June can the LUA please advise the relevant Land Management Officer.

1. Converting an already consented .xml to Overseer FM

Having a consented .xml loaded to FM enables the LUA to use this analysis as a basis for developing a year end analysis, making submission of the monitoring data easier.

Conversion of the consented analysis

Once in FM the consented analysis can be published to BOPRC. The process is as follows:

1. BOPRC discusses with landowner updating consented .xml to FM
 - a. BOPRC can provide .xml to landowner; or
 - b. BOPRC can provide .xml to LUA who then requests access to farm account through OverseerFM, uploads consented .xml, using naming protocols, as a predictive analysis in the farm account.
2. Landowner or LUA publishes previously consent analysis to BOPRC by 31 October 2019.

2. Converting and finalising an existing .xml to FM for publication

Where an LUA has partly developed an NMP using an .xml the .xml will need to be converted to FM to complete. If a farm account is not created directly (or before 30 June 2019) the .xml will need to be stored outside the Overseer Nutrient Budgets model by the LUA. This process however assumes the landowner already has an FM Farm Account and is as follows:

1. BOPRC contacts landowner and advises of the need to establish an Overseer account.
2. Landowner or LUA creates FM account (if landowner creates account the LUA requests access to farm account in OverseerFM when farm account has been set up).
3. LUA uploads 17-22, 22-27, 27-32, 32+.xmls to FM using BOPRC protocols
4. LUA publishes as 'submitted' all analyses to BOPRC as predictive analyses. Permitted Activity analyses only require Year End analyses.
5. BOPRC changes the publication status to 'reviewing' for the analyses.
6. BOPRC either;

- a. 'returns' the publication for amendment² and the LUA to re-publish and/or;
 - b. 'closes' the publication on acceptance of the predictive analysis.
7. LUA completes NMP using the existing process

3. Starting a new analysis for a consent or PA (permitted activity) application

In the initial stages of the Advice and Support process landowners will be advised they need to register and subscribe to OverseerFM. On selection of the Land Use Advisor the landowner will be provided with guidance to assist in farm account set up according to BOPRC protocols.

1. Landowner advises LUA and LMO when the registration and subscription has been completed.
2. Provision of attribute data and maps remains the same as the current service provided by BOPRC
3. LUA creates 17-22, 22-27, 27-32, 32+ analyses in FM using BOPRC protocols
4. LUA publishes as 'submitted' all analyses to BOPRC as predictive analyses. Permitted Activity analyses only require Year End analyses.
5. BOPRC either;
 - a. 'returns' the publication for amendment and the LUA to re-publish and/or;
 - b. 'closes' the publication on acceptance of the predictive analysis.
6. LUA completes NMP using the existing process

Developing a monitoring analysis

A monitoring analysis is a Year End analysis which is used by Council to confirm compliance with a resource consent.

The consent document will outline the date a monitoring analysis is due, usually before 1 November each year.

Development of year end monitoring analysis

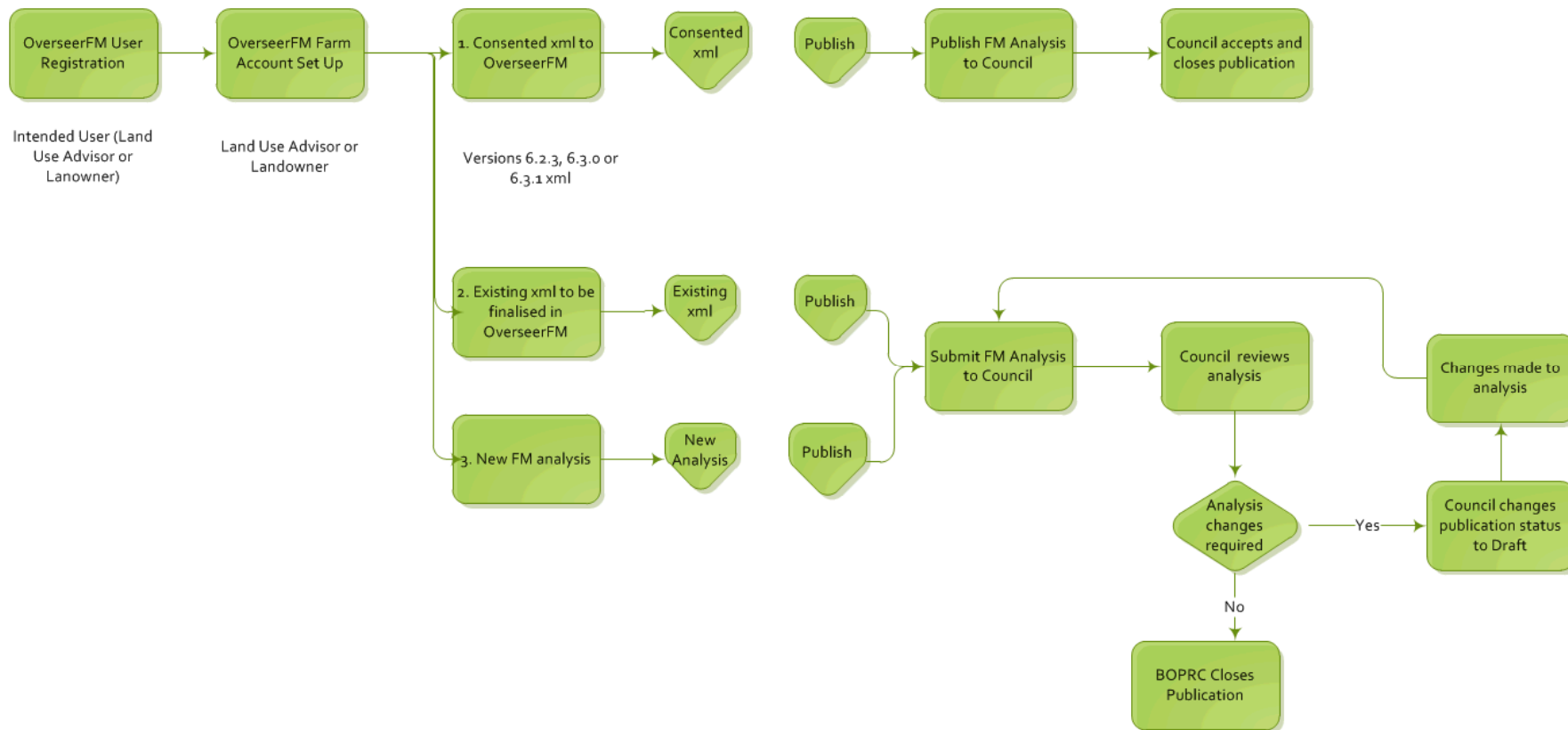
1. Landowner engages a suitably qualified person (usually LUA) to create the monitoring analysis. Landowner renews Overseer subscription (if necessary).
2. LUA creates a monitoring analysis based on the actual farm practices for the year³
3. LUA publishes year end analysis to council.
4. Council 'closes' the publication.
5. Council compares year end analysis with consented farm system and contacts landowner if actions are required.

² Similar to the review process for the .xmls however now the analysis is 'returned', amendments made, and the LUA republishes in submitted status and Council updates to reviewing status and so on until review complete and Council changes status to closed.

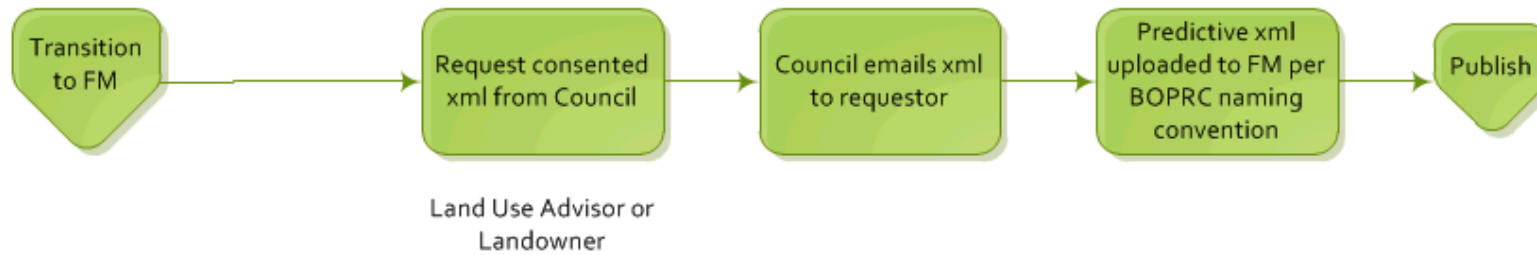
³ It is the landowner's responsibility to hold the auditable source documents as proof of compliance with targets and mitigation actions recorded in the Nutrient Management Plan. If requested these must be provided to the Regional Council. Farm records are expected to be kept for at least 7 years.

Overseer FM analysis flowcharts

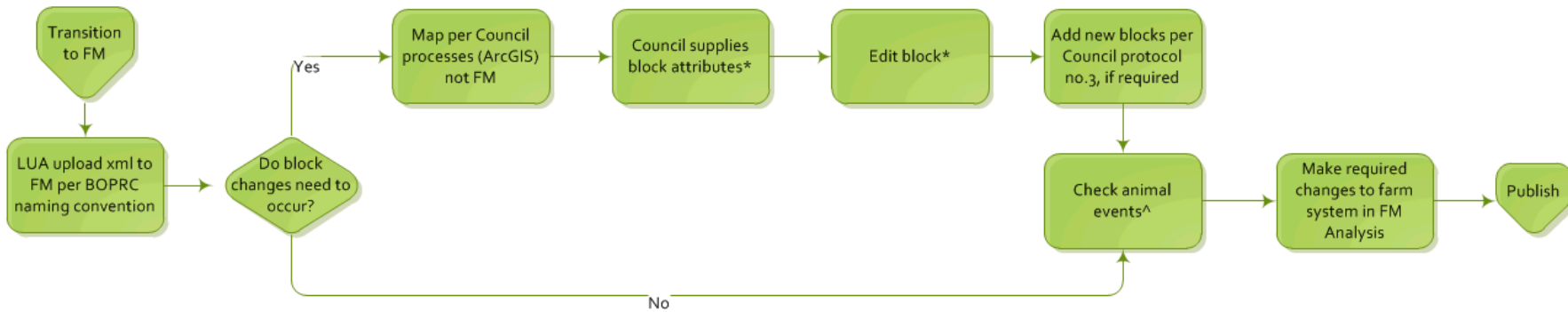
Transition to OverseerFM – BOPRC process



1. Consented xml to OverseerFM



2. Existing xml to be finalised in FM



* if required edit:

- Block effective area
- Tick 'Enter climate location'; enter lats and longs supplied by Council
- Click 'Done'
- Check soil, edit if required
- Click 'Save'

^ Check the animal events to make sure they align i.e. separate mobs for each number that leaves the farm at different times of year. To establish consistent methodology, any conversion of OVERSEER v6.2.3, 6.3.0 or v6.3.1 to OverseerFM should include checking event based (dates) stock entry.

3. New analysis in OverseerFM

