



Opio Dairy Limited

File Note: 14th January 2025

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Purpose of this file note

This file note is to outline changes made to the nutrient budgets submitted for Opio Dairies nutrient budgets.

Opio Dairy REPORT final V2 was submitted in December 2024, it has been noted that two of the blocks are +/- 3ha and the total farm area was also incorrect.

Nutrient budgets (version 3) have now been updated to show the correct effective areas at a block level and also the total farm ha, this has then been compared to the updated land areas in the proposed model.

Changes between version 2 (December 2024) budgets compared to version 3 (January 2025) budgets

	Baseline Dairy Platform v2	Baseline Dairy Platform v3		Baseline S/B v2	Baseline S/B v3		Proposed Dairy Platform v2	Proposed Dairy Platform v3
Blocks	ha	ha	Blocks	ha	ha	Blocks	ha	ha
1) Platform	22	22	7) Runoff	32	35	2) Platform	54	51
2) Platform	54	51				3) Platform	40	40
3) Platform	40	40				4) Platform	47	47
4) Platform	39	39				6) Runoff	44	44
6) Runoff	9	9				7)Runoff	32	35
4) Platform W/C	8	8						
5) Runoff W/C	16	16						
6) W/C	35	35						
Total Effective	223	220		32	35		217	217
Total Area	231.9	229.7		32	35		225.9	220.3

Note:

- All changes made have been minor:
 - o There has been small changes in supplements in the Baseline S/B budget due to the adjustments in area

- **Fertiliser N total tonnage has increased in the Baseline S/B due to extra 3ha area**
- **Fertiliser P maintenance requirements (and tonnage) has increased in the Baseline S/B due to extra 3 ha area and change in supplements**
- **Fertiliser P inputs in the Proposed model have increased due to maintenance P requirements.**
- **All other inputs remain the same as original V2 budgets submitted.**

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Results

OverseerFM estimates the following:

The tables below compare the estimated losses of nitrogen and phosphorus from the consented baselines with the estimated losses under the proposed system.

Consented baseline:

	Baseline Opio Dairy Updated to V3	Baseline Sheep & Beef Updated to V3	Total Baseline
Effective Area	223 220	32 35	255
Total Farm N Loss (kg)	11608 11 649	603 610	12211 12 259
N Loss/ha (kgN/ha/yr)	50 51	19 17	
Total Farm P Loss (kg)	234 233	22 23	256
P loss/ha (kgP/ha/yr)	1	0.7	
Pasture Grown (tDM/ha)	17.1 17.4	12.1 12.0	
RSU	5170	473	5643

Revised baseline with 22ha and 16ha blocks removed from Dairy Platform.

This has been calculated by removing the nutrient loss from blocks 1 and 5 and a pro rata of other sources relative to the total area.

Note: 22ha + 16ha = 17% of whole block

Nitrogen loss

Total N loss block 1 = 711 kg N / yr

Total N loss block 5 = 1533 kg N / yr

Other sources N loss pro rata = 78.7 kg N / yr (463 kg N x 17%)

Nitrogen loss no longer attributable to the baseline due to the loss of the 38 ha via giving up lease and selling land = 2323 kg N / yr

Phosphorus loss

Total P loss block 1 = 12 kg P / yr

Total P loss block 5 = 8 kg P / yr

Other sources P loss pro rata = 18.2 kg P / yr (107 kg P x 17%)

Phosphorus loss no longer attributable to the baseline due to the loss of the 38 ha via giving up lease and selling land = 38 kg P / yr

RSU have been pro rata based on land area:

5643 RSU x 17% = 959.3 RSU

Revised Consented Baseline compared to Proposed

	Total Baseline Updated to V3	Revised Total baseline Updated to V3	Proposed System Updated to V3	Difference between Baseline and Proposed Updated to V3
Effective Area (ha)	255	217 (255-38)	217	
Total Farm N Loss (kg)	12211 12 259	9908 9936 (12 259 – 2323)	7617 7752	23% 22% decrease
N Loss/ha (kgN/ha/yr)			34 35	
Total Farm P Loss (kg)	256	219 218 (256 – 38)	208	5% decrease
P loss/ha (kgP/ha/yr)			0.9	
Pasture Grown (tDM/ha)			17.1 17.4	
RSU	5643	4684 (5643 - 959)	6512 6509	39% increase

Conclusion

OverseerFM estimates similar decreases in both N and P losses between the current baselines and the proposed consented system after the areas have been corrected in version 3.

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