Development site details

Date (dd/mm/yyyy)**:**	9/18/23
Site Name:	Rear of Prospect Farm
Planning Application number:	
Site Address:	Rear of Prospect Farm, Main Road, Cutmill, Chidam

Stage 1

User Inputs

Date of first occupancy:	
Average occupancy rate:	2.40
Water usage (litres/person/day)**:**	120
Development Proposal (dwellings/ units)**:**	1
Include deductible acceptable loading?	No
Wastewater treatment works:	Thornham WwTW
Wastewater treatment works N permit (mg TN/litre)**:**	10

Stage 1 Calculated Loading

Stage 1 Nutrient Loading

Additional population	2.40	people
Wastewater by development	288.00	litres/day
Annual wastewater TN load	**0.95**	**kg TN/yr**

Stage 2

User Inputs

Catchment:	Western Streams
Soil drainage type:	Naturally wet
Annual average rainfall (mm)**:**	675.1 - 700
Within Nitrate Vulnerable Zone (NVZ):	Yes

Existing land use type(s)	**Area** (ha)	**Annual nitrogen nutrient export** (kg TN)
Residential urban land	0.08	1.02
Total:	**0.08**	**1.02**

Stage 3

User Inputs

New land use type(s)	**Area** (ha)	**Annual nitrogen nutrient export** (kg TN)
Residential urban land	0.08	1.02
Total:	**0.08**	**1.02**

Stage 4

Calculated Outputs

Annual Nutrient Budget

The total annual phosphorus load to mitigate is:	
The total annual nitrogen load to mitigate is:	1.13 kg TN/year

Stage 4

Calculated Outputs

P loading to WwTW:			
Net land use P change:			
P budget:			
P budget + 20% buffer:			
N loading to WwTW:	0.95		
Net land use N change:	-0.00		
N budget:	0.94		
N budget + 20% buffer:	1.13		
	0.84		
	0.84		
	1.01		

Your final phosphorus budget is:

1.01

The total amount of nitrogen to mitigate is:

1.13

have pop up message if negative that says soemthing like "No P to mitigate

FALSE

If positive
have

Stage 1
Value:

Stage 2
Nutrient loading from current land use

Stage 3
Nutrient loading from future land use

Stage 4
Nutrient budget calculation

Stage 4

Calculated Outputs

P loading to WwTW:			
Net land use P change:			
P budget:			
P budget + 20% buffer:			
N loading to WwTW:	0.95		
Net land use N change:	-0.00		
N budget:	0.94		
N budget + 20% buffer:	1.13		
	0.84		
	0.84		
	1.01		

Your final phosphorus budget is:

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Stage 1
Value:

Stage 2
Nutrient loading from current land use

Stage 3
Nutrient loading from future land use

Stage 4
Nutrient budget calculation

CONCLUSIONS/MITIGATION

The nitrogen budget calculation for the site shows that after the occupation of the proposed development there will be an increase in the Total Nitrogen load compared to the existing site use; therefore, it is recommended that mitigation or nitrogen offsetting is required for this development.

SOLUTION

The area of off-site rewilding required to offset the nitrogen load of the proposed development: 1.13 kg/yr ÷ 9.3 [14.3-5] kg/ha/yr = 0.121ha [calculation assumes an urban land use type (14.3kg N/ha) for rewilding through woodland planting (5.0kg N/ha)]. Therefore, in order to offset the calculated nitrogen load of 1.13 kg/yr, rewilding an area of 0.121 ha [1210sq m] through the planting of a native broadleaf woodland would be required.

This extent of rewilding is illustrated on attached Drawing 7.

The rewilded woodland area will have 50% canopy cover at maturity [based on 250 trees per hectare] comprising native broadleaf species. As per paragraph 5.12 of NE guidance, a nitrogen leaching rate from woodland planting is likely to equate to 5 kg/ha/yr.

No dogs will NOT be allowed on the woodland in order to avoid potential inputs of Nitrogen from dog waste. The woodland area will be fenced off from the remainder of the land with stock proof fencing.

The provision and long-term retention of the woodland area will be addressed through a suitably worded planning condition.