

What effect does changing
OVERSEER predictions have on
Rotorua catchment loads and
targets?

TAG

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Background

- Catchment budgets and RoTaN have been based on OVERSEER 5 predictions of pastoral N loads
- There is a significant change in predicted loads coming from OVERSEER 6
- We are currently converting the benchmark files through to OVERSEER 6 (completed end of March)
- The following assumes either a 30% or 50% increase in pastoral load

Effect of OVERSEER upgrade

Source of nitrogen	Area in use (ha)	Total tN/yr (in 2010)	Area(from BM data)	Total tN/yr (from BM data)	Total tN/yr (from 130% BM data)	Total tN/yr (from 150% BM data)
Dairy	5050	273	5088	252	327.6	378
Drystock[1]	15072	236	17658	300	390	450
Forest	21182	75.4	19838	56	56	56
Urban[2]	3961	93.4	3883	93.4	93.4	93.4
Lifestyle	1053	16.7				
Geothermal	59	30.3		30.3	30.3	30.3
Rain	n/a	30		30	30	30
TOTAL	46377	755	46467	762	927	1038

Why?

- In previous versions drainage was driven by rainfall.
- In OVERSEER 6 drainage is a function of rainfall and AWC of the soil
- On pumice soils this has resulted in increased N leaching
- Likely to be an on-going issue as OVERSEER evolves

Effects on Loads and Targets

	Current (RoTaN)	Current (benchmarked O5)	Current Bmed O6 (assuming 130%)	Current Bmed O6 (assuming 150%)
Lake Load	755	762	927	1038
Target	435	435	435	435
Reductions required	320	327	492	603
Eng Target	50	50	50?	50?
Pastoral Target	270	277	442?	553?

Questions for TAG

- Does the 435 tonne sustainable load change with changing OVERSEER predicted catchment loads?
- If the 435 tonne sustainable load remains the same do the reductions required from the pastoral sector increase or do we assume an attenuation factor and proportional changes to the pastoral targets or some other approach?