

Notice regarding August 2020 changes to S-maps and the impact on OverseerFM results

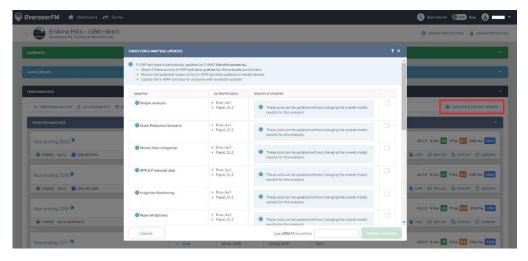
21 August 2020

Manaaki Whenua Landcare Research will be updating soil parameters in their S-map tool in August 2020. For more information in the detail of these updates see here

While the updates to S-map include better estimates of soil parameters used in Overseer, they do not constitute a change to Overseer and so there will be no Version change.

Given this, Overseer Limited will not be automatically updating analyses following the updates to S-maps. Instead, we have introduced a "Check for S-map soil updates" button within each farm account. This enables users to:

- Check if there are any S-map soil data updates for the analyses on the farm
- Review the potential impact of any S-map soil data updates on model results
- Update the S-map soil data for analyses with available updates.



When users do update the S-map soils, they can update them by analysis.

To maintain a like for like comparison, changes should be made to all analyses which need to be comparable e.g. Baseline and current state Year End analyses.

Regarding what will be acceptable for compliance or consent reporting, it is for Regional Councils and other reporting organisations to decide whether they will require analyses to be updated to the latest S-map parameters.

Assessment of impact on OverseerFM results

Overseer Limited have carried out comprehensive testing of the new S-map parameters on 32,000 analyses in OverseerFM to identify the likely changes that will occur in relation to N-loss and GHG emissions.

The results summarised in the table below identify the likely significance of changes to N-loss and GHG expected.

For N-loss, we can see that just under 15% of farms will see no change, meaning most farms should expect some change. For the majority of the farms (71%) the changes will be between -10% and +10%.

There will be a reasonable proportion of farms (around 17%) that will see a greater than 10% increase, but less that 20%. And there will be a further 8% who see extreme increases of over 20%. There are also a few farms that will see a significant decline in N-loss results.

99.98% of farms will also see their GHG emissions per hectare result change between -10 to +10%, with very minor significant changes.

Percentage change	N loss/ha count	N loss/ha %	GHG count	GHG %
> 50% increase	108	0.33%	-	0.00%
> 40% increase	245	0.76%	-	0.00%
> 30% increase	593	1.83%	-	0.00%
> 20% increase	1,714	5.28%	-	0.00%
> 10% increase	5,560	17.13%	-	0.00%
0 to 10% increase	9,286	28.62%	16,780	56.72%
no change	4,835	14.90%	1,782	6.02%
0 to 10% decrease	9,007	27.76%	10,985	37.13%
> 10% decrease	866	2.67%	7	0.02%
> 20% decrease	149	0.46%	7	0.02%
> 30% decrease	51	0.16%	7	0.02%
> 40% decrease	25	0.08%	7	0.02%
> 50% decrease	11	0.03%	7	0.02%

When interpreting these results please note that it is likely that not all farms in OverseerFM use the current S-map information. Many legacy Overseer nutrient budgets uploaded into the software in 2019 may have included older S-map information. These results don't attempt to provide an exact representation of the impact of the latest changes, but they are a true reflection of the result of updating existing data to the latest S-Map parameters.