

BEFORE THE HEARING PANEL OF SOUTHLAND REGIONAL COUNCIL

In the matter of sections 88 to 115 of the Resource
Management Act 1991

And

In the matter Applications for resource consents by:

WORLDWIDE FOUR LIMITED, WORLDWIDE FIVE
LIMITED

Brief of evidence of Dr Michael Conrad Freeman

Addendum 18 October 2019

Introduction

The purpose of this brief addendum is to summarise the outcome of the technical caucusing on matters relating to Woldwide Four and Woldwide Five, to respond to any outstanding relevant technical and planning matters, to provide initial feedback on the draft conditions provided by the S42A reporting officers including an outline of a proposed groundwater quality monitoring programme to be incorporated as conditions for the relevant land use consent for farming. Technical matters relating to modelling of nutrient losses have been addressed in addendum evidence by Mark Crawford, dated 18 October 2019.

Caucusing notes

The caucusing notes that have been circulated previously are attached.

Questions posed by S42A reporting officers

The additional questions raised by the reporting officers are very broad in nature, and a comprehensive response is beyond the scope of these applications and/or would duplicate information provided elsewhere in the application and/or evidence. However, for completeness, brief responses are provided below to clarify.

Questions raised by S42A reporting officers	Brief response
<i>1. What is going on with the Slurry from WW3 – where has it factually been spread and under what consent?</i>	The slurry from WW3 has been discharged onto the Horner Block as provided for under discharge permit 301665 held by Woldwide Three Limited.
<i>2. What are the P mitigations for WW4 & WW5 and where will these be occurring?</i>	The specific proposed P mitigations are detailed in Mr Crawford's evidence, both primary and addendum dated 16 October 2019. These are also referred to in the relevant FEMPs with calculations contained in the report on further P mitigations..
<i>3. When will the feedpads/ stand off pads be operational and where are they located on the properties (2x requests at site visits to view them haven't been responded to)?</i>	There are three feedpads. Two are currently operational with one as a backup. These were apparently visited by Courtenay Guise and Aurora Grant during an earlier visit. Photos are available if needed and they are visible on Google Maps. They comply with the PA requirements of Rule 35A.
<i>4. What good management practices are factually in place on the properties currently?</i>	A wide range of good management practices are already in place including the relevant practices identified in the Environment Southland guidance factsheet. These are

	summarised in the AEE, Mr Crawford's evidence and in the relevant FEMPs.
5. <i>Numbers of stock on the ground v what has been modelled, in particular for the 2018/2019 season?</i>	Mr Crawford has modelled stock numbers based on a combination of information provided by the applicants' representatives, milk production figures that have been sighted, and corroborating information from a site visit.

Initial feedback on draft conditions

Draft conditions have been circulated by Mr Alex Erceg. I appreciate that Mr Erceg had an extremely limited period of time to develop suites of conditions for a significant number of resource consents and agree with the general direction of the consent conditions. I have worked with Ms Matilda Ballinger, Graduate Planner, Landpro, to suggest a significant number of changes to the conditions to improve the certainty, effectiveness and reasonableness of many proposed conditions. A marked-up Microsoft Word version of the draft conditions has been provided with this document. Many of the proposed changes are in Ms Ballinger's name. However, I have discussed each specific provision with Ms Ballinger and I adopt those suggestions as my own.

I acknowledge that some aspects of some draft conditions have not been fully completed because of limited time.

In addition, to those suggested changes the applicant is prepared to proffer a groundwater quality monitoring programme that involves twice yearly monitoring of the following bores for nitrate nitrogen and *E. coli*.

1. An upgradient bore - E45/0726
2. WW4 downgradient - E45/0426
3. WW5 downgradient - E45/0347
4. A new bore on the Gladfield block – location to be determined.



MIKE FREEMAN
SENIOR SCIENTIST/PLANNER
18 October 2019

Woldwide four and Woldwide Five Caucusing Statement

1 Riverbed land WW5 - what has been modelled and what is lawful under the RMA?

Mark Crawford has modelled titled land only.

In agreement that there is land outside of the legal title boundaries that has been farmed.

Agreed that what is clearly current river must be excluded even if there is title to that land.

Appears clear (page 16 MC report) that LINZ blocks included in modelling. But no LINZ authorisation. Needs LINZ authorisation.

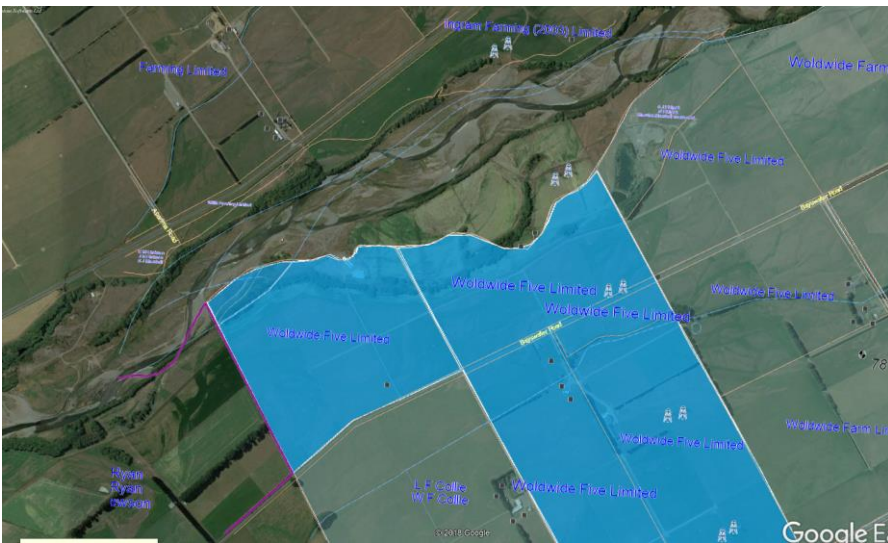
IWG in the LINZ land that may be defined as riverbed? If the land is river bed then additional consents may be required for actions post June 2016 e.g., cultivation, IWG, Rule 24, etc. Riverbed definition awaiting CA decision.

Applicant does need to follow-up with LINZ re use of LINZ land.

Summary – need direction on whether or not LINZ land should be modelled as part of existing environment or not?

Applicant consultant position: LINZ land modelling should be included unless LINZ authorisation not provided. ES rules would not apply to this land if not defined as river bed.

Reporting officer position: LINZ land should be excluded from modelling including the activities that occurred on that land. The LINZ land is river bed and all river bed rules apply.



Separate follow-ups - Need tile map for Cochran's land. Silage stack adjacent to river (?) if correct too close re Rule 40 – need to apply for consent or move.

2 Gladfield Block - has actual previous land use on the Gladfield block been modelled appropriately? What is the proposed land use on the block until the wintering shed has been built and has this been modelled appropriately?

Need clarification on what land use has been modelled for previous years. ES staff observations during earlier visits don't appear to align with modelling for previous years i.e., ES staff consider not IWG but IWG modelled?

In agreement that IWG is proposed to happen on this block until the winter barns have been built.

In agreement that this is possible as temporary fencing can be put up and lanes are still there.

In agreement that there would be consent conditions that limit the nutrient loading via conditions on WW4 until the sheds have been constructed. In agreement don't want to be locked into one system if another alternative has the same losses or lower. Option to have a number of alternatives that can comply with nutrient output conditions.

Need clarification on whether IWG will occur and be conditioned to Gladfield Block as proposed.

Overseer modelling includes use of wording that has agricultural effluent applied to "non-effluent" blocks.

Applicant consultant position: Overseer modelling requires workaround to apply non FDE effluent that requires export and import as organic fertiliser. Overseer modelling has modelled slurry as fertiliser to accurately reflect nutrient content.

Reporting officer position: Agricultural effluent as defined in PSWLP includes both slurry and FDE as such they should be modelled as the same product. If they are separate products then factually show sample results to reflect that. [As application currently stands consent conditions would be required to ensure that IWG occurs on Gladfield block under phase 1 as has been modelled.](#)

Follow-up:

(1) Need clarification that Mark C modelling of all effluent is limited to the areas specified in the original application.

(2) Mark C to provide the information used to develop "dairy organic fertiliser" characteristics to provide assurance that slurry is accurately modelled, and two effluent infrastructure systems followed.

(3) Mark C to follow-up providing justification for modelling previous IWG if that is what has been modelled.

3 What is appropriate baseline modelling for the Collies block (WW5) for the period after the surrender of the conversion consent?

Not in agreement about the baseline modelling for this period.

In agreement on what the lawful baseline is.

Applicant consultant position: A written agreement was provided by ES that the applicant has acted on.

Reporting officer position: Multiple pre-application meetings occurred in which the Collies Block was discussed at length. The applicant and consultant indicated that IWG would occur on the Collies Block until consent was granted for conversion. ES advised that what is occurring on the ground should be modelled as the baseline, including IWG if the applicant insisted on carrying out that activity there. Multiple drafts of the application were received and reviewed and the email that was included in evidence at the hearing related to a version of an application that was never received by Council. It later turned out that IWG was carried out on Cochran's Block instead of Collies as originally detailed. Reporting officer can provide additional material to support this.

4. Cochran Blocks - WW4 & WW5 was all the IWG occurring in June 2019 lawful?

IWG has been occurring on these blocks. Key issues relate to whether was authorised.

How much land was IWG and the extent to which non-compliance with rules means that any or none is authorised.

The IWG on WW4 Cochran's Block was not authorised under Rule 20 PSWLP and Rule 17 SRWP.

Reporting officer position: All IWG was not authorised post 1 May 2019 and should not be included in the existing environment. *(In addition to MF comment below which was added after caucusing occurred) I consider this a matter of fact and for planning expertise to determine, not for further explanation from Mark. The question was "was the IWG occurring on Cochran's block legal". Mark does not have the appropriate expertise to determine this in a factual or planning sense.*

Applicant consultant position: Agree that the IWG does not comply with all PA requirements. Overseer modelling approximates the IWG in this area. Mark Crawford will explain modelling undertaken. That strongly indicates that the modelling is adequately aligned with actual and legal land use.

5. Where has the Slurry from WW3 been applied to? Does this have any implications for Overseer modelling/existing environment for WW4 and WW5?

A question was raised at the hearing about where the effluent from WW3 was being disposed.

Reporting officer position: WW5 may not have adequate effluent disposal area if some allocated to WW3.

Applicant consultant position: This is not a significant nutrient loading issue for WW4 or WW5 because modelling has been done on the basis that a specific amount of N has to be applied whether it is from WW3 slurry or fertiliser.

Follow-up: Applicant will follow-up with to see if WW3 DP can be changed to ensure adequate area available for WW5 discharge. Will need to clarify what has been modelled for existing environment.

Deleted: but needs legal input to determine whether any IWG could form part of the existing environment

Commented [AG1]: I consider we need factual and planning input, not further explanation from Mark. The question was "was the IWG occurring on Cochran's block legal". Mark does not have the appropriate expertise to determine this.

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Mike Freeman
Applicant Consultant

Aurora Grant
Reporting Officer

Alex Erceg
Reporting Officer